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OPEN ACCESS AND TRANSITION COSTS: WILL THE ELECTRIC INDUSTRY TRANSITION TRACK THE NATURAL GAS INDUSTRY RESTRUCTURING?

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I. INTRODUCTION

The Energy Policy Act of 1992 (EPAct)[1] marked the first comprehensive energy policy legislation enacted in the United States in over a decade. Title VII of the EPAct[2] amended the Public Utility Holding Company Act of 1935 (PUHCA)[3] and the Federal Power Act (FPA),[4] two New Deal era laws that constitute much of the statutory framework for federal regulation of the electric power industry. These amendments have been hailed as "two notable revisions to previous law that will eventually reshape the electric power business in North America."[5] While competitive forces already were taking root in the electric power industry prior to the enactment of the EPAct,[6] the new law has been a catalyst for change in the industry and its regulatory environment. Even the EPAct's authors have been surprised

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1. Pub. L. No. 102-486, 106 Stat. 2776 (1992). *See generally* Donald F. Santa, Jr. & Patricia J. Beneke, *Federal Natural Gas Policy and the Energy Policy Act of 1992*, 14 ENERGY L.J. 1, 8-13 (1993) (legislative history of EPAct).

2. Energy Policy Act of 1992, Pub. L. No. 102-486, §§ 711-31, 106 Stat. 2776, 2905-21 (1992).

3. 15 U.S.C. §§ 79z to 79z-6 (1988).

4. 16 U.S.C. §§ 791a-825u (1988).

5. Daniel Yergin et al., *Caught in the Muddle: The Dilemma of Today's Electric Power Industry*, NAT. RESOURCES & ENV'T, Winter 1994, at 3, 4.

6. *See generally* ENERGY INFORMATION ADMINISTRATION, THE CHANGING STRUCTURE OF THE ELECTRIC POWER INDUSTRY 1970-1991 (1993) [hereinafter CHANGING STRUCTURE].

by the pace of change that has occurred in the two years following the statute's enactment.[7]

Title VII of the EPAct has changed the legal landscape for the electric power industry in two ways. First, it gives the Federal Energy Regulatory Commission (FERC or Commission) expanded authority under section 211 of the FPA to order certain entities to transmit ("wheel") electricity for third parties.[8] Second, title VII amended PUHCA to create a class of electricity sellers known as Exempt Wholesale Generators (EWGs). The availability of EWG status has lowered regulatory hurdles to generation market entry previously imposed by the PUHCA.[9]

Following enactment of the EPAct, the Commission has taken major steps to implement both the letter[10] and the spirit[11] of the new amend-

7. "Today, the pace of change in electricity markets—and thinking about the industry's future—has outpaced most expectations." *Hearing on Electricity Issues That Have Followed the Enactment of the Energy Policy Act of 1992 Before the Subcomm. on Energy and Power of the House Comm. on Energy and Commerce*, 103d Cong., 2d Sess. (1994) [hereinafter *Electricity Issues Hearings*] (prepared opening statement by Subcommittee Chairman Representative Philip R. Sharp); *see also Hearing on the Nomination of Elizabeth Anne Moler, Nominee for Reappointment as a Member of the Federal Energy Regulatory Commission Before the Senate Comm. on Energy and Natural Resources*, 103d Cong., 2d Sess. (1994) (statement of Committee Chairman Senator J. Bennett Johnston) (stating as with the natural gas industry, it is possible to bring competition to the electric industry "with first wholesale wheeling and bringing the electricity business into the competitive arena. It has gone on—it has been developing even faster than I thought it would under the Energy Policy Act and I think so far successfully. . . .").

8. *See* 16 U.S.C.A. § 824j (West 1988 & Supp. 1993) (certain applicants may apply to the Commission for an order requiring a transmitting utility to provide transmission service). Section 211, which was added to the FPA by the Public Utilities Regulatory Policy Act of 1978 (PURPA), previously conferred limited authority on the FERC to order transmission. Pub. L. No. 95-617, 92 Stat. 3117 (1978) (codified as amended at 16 U.S.C. §§ 2601-45 (1988)). *See infra* note 52 (describing PURPA). The FERC was circumscribed in its ability to order transmission in particular by FPA § 211(c)(1)—which was repealed by the EPAct. Under § 211(c)(1), the Commission was prohibited from issuing an order to compel the provision of transmission services unless the Commission determined that "such order would reasonably preserve existing competitive relationships." Because third-party transmission service, by its very nature, permits purchasers and sellers to reach alternative firms in the marketplace and thereby change existing competitive relationships, the FERC, prior to EPAct, "ordered" service under § 211 in only one circumstance, and then, pursuant to its approval of a settlement. *See Central Power & Light Co.*, 18 F.E.R.C. ¶ 61,100 (1982).

9. This is because, absent EWG status, an entity may be subject to rigorous oversight, reporting, and accounting requirements imposed by the Securities and Exchange Commission if it "controls, or holds with power to vote, 10 per centum or more of the outstanding voting securities of a public-utility company." 15 U.S.C. § 79b(a)(7)(A) (1988). Under § 32(e) of PUHCA, as amended by EPAct, EWGs are not considered "electric utility companies" and are "exempt from all provisions" of the PUHCA. *Id.* § 79z-6. *See also Kansas City Power & Light Co.*, 67 F.E.R.C. ¶ 61,183, at 61,557 (1994) (barriers to entry in the long-term generation market have been lowered since the passage of the EPAct due to the exemption of EWGs from the strictures of the PUHCA).

10. *See generally* Jeffrey D. Watkiss & Douglas W. Smith, *The Energy Policy Act of 1992—A Watershed for Competition in the Wholesale Power Market*, 10 YALE J. ON REG. 447 (1993).

11. At the time of enactment, several Representatives and Senators commented that EPAct would bring more competition to the electric industry, as well as lower prices for consumers. *See* 138 CONG. REC. H11,400 (daily ed. Oct. 5, 1992) (statement of Rep. Sharp) ("EPAct will introduce historic changes to the electric industry—increasing competition among suppliers and providing protections for consumer pocket books."); *id.* at E3,227 (statement of Rep. Lehman) (stating transmission access portions of the electricity title will create a new generation of independent power producers and

ments to the FPA. The FERC has construed its charge under the new law in terms of its interpretation of the Congressional intent underlying title VII: to foster competition in wholesale electricity markets in general, and to do so by means of open access to transmission services in particular.[12] Consequently, the FERC has moved forward assertively to facilitate the emergence of a more competitive bulk power market.

In this regard, FERC's post-EPAct electric policy initiatives have included the following:

(1) A final rule establishing filing requirements and ministerial procedures for persons seeking EWG status under section 32 of the PUHCA, as added by section 711 of EPAct;[13]

(2) A notice of technical conference and request for comments concerning the Commission's policy for pricing transmission services;[14]

(3) A policy statement establishing the requirements for "good faith" requests for section 211 transmission service;[15]

(4) A policy statement issuing guidance for, and extolling the virtues of, Regional Transmission Groups (RTGs);[16]

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encourage competition in the electric market like that which has not existed in this country); 138 CONG. REC. S17,628 (daily ed. Oct. 8, 1992) (statement of Sen. Riegle) (EPAct is intended to accomplish a restructuring of the utility industry to promote greater competition for the benefit of energy customers.); 138 CONG. REC. S17,632 (daily ed. Oct. 8, 1992) (statement of Sen. Dole) (We are entering a brave new world of new competition that will be stimulated by the provisions of this bill.).

12. *See Electricity Issues Hearings*, *supra* note 7 (statement of Chair Elizabeth Anne Moler) ("The Commission is committed to developing a competitive, open transmission access, wholesale bulk power market."); *Electricity Issues Hearings*, *supra* note 7 (statement of Commissioner James John Hoecker) (During 1994, the FERC has "advanced the policies underlying the Energy Policy Act through pronouncements on transmission service under Section 211, comparability, [and] stranded cost recovery and pricing. . . . [B]ecause section 211 has changed the dynamics of transmission regulation and led the Commission to reexamine how it might promote a competitive bulk power market in section 205 and 206 proceedings, we have interpreted the undue discrimination standard to mean that transmission providers must offer service to third parties that is the same or comparable to the service which the owner provides to itself."); *Electricity Issues Hearings*, *supra* note 7 (statement of Commissioner William L. Massey) (The Commission has issued a number of orders during 1994 "underscoring its commitment to the goal of capturing for consumers the efficiencies that wholesale competition can bring."). *See also Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, IV F.E.R.C. STATS. & REGS. ¶ 32,507, at 32,863 (1994).

13. *Filing Requirements and Ministerial Procedures for Persons Seeking Exempt Wholesale Generator Status*, III F.E.R.C. STATS. & REGS. ¶ 30,964 (1993).

14. Notice of Technical Conference and Request for Comments, *Inquiry Concerning the Commission's Pricing Policy for Transmission Services Provided by Public Utilities Under the Federal Power Act*, 64 F.E.R.C. ¶ 61,109, 58 Fed. Reg. 36,400 (1993) [hereinafter *Pricing Technical Conference*]. Pursuant to its notice in the *Pricing Technical Conference* docket, the Commission received written and reply comments from 165 different sources. The Commission held oral hearings on transmission pricing on April 7 and 14, 1994. The Commission plans to issue a policy statement on transmission pricing based on the comments tendered in the *Pricing Technical Conference*. That action is currently pending.

15. *Policy Statement Regarding Good Faith Requests for Transmission Services and Responses by Transmitting Utilities Under Sections 211(a) and 213(a) of the Federal Power Act, as Amended and Added by the Energy Policy Act of 1992*, III F.E.R.C. STATS. & REGS. ¶ 30,975 (1993).

16. *Policy Statement Regarding Regional Transmission Groups*, III F.E.R.C. STATS. & REGS. ¶ 30,976, at 30,874 (1993) [hereinafter *RTG Policy Statement*].

(5) A final rule requiring transmitting utilities to file information periodically regarding their transmission systems, including capacity and constraint information;[17]

(6) A generic policy, first articulated in an adjudication, requiring that transmission owners provide to third parties transmission access which is the same or comparable to the access which the transmission owners provide to themselves;[18]

(7) A general policy, first articulated in an adjudication, that all "new" sellers of unbuilt generating facilities lack generation market power;[19] and

(8) A notice of proposed rulemaking regarding so-called "stranded costs."[20]

Access to electric transmission facilities has been the predominant theme of the Commission's post-EPAct electric policy initiatives. Five of the eight initiatives mentioned above relate directly to making access to transmission facilities more widely available. The Commission recently explained why transmission access is particularly important to the development of a competitive bulk power market, and ultimately, to the possibility for lower electricity costs to ultimate consumers:

> As a general matter, the availability of transmission service (or increased flexibility to use transmission) will enhance competition in the market for power supplies over the long-run because it will increase both the power supply options available to transmission customers (thereby benefitting their customers) and the sales options available to sellers. This should result in lower costs to consumers.[21]

The Commission, however, has also recognized that increased access to transmission may change existing supply relationships. In particular, the

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17. 18 C.F.R. § 141.300 (1993); *New Reporting Requirement Implementing Section 213(b) of the Federal Power Act, and Supporting Expanded Regulatory Responsibilities under* [sic] *the Energy Policy Act of 1992, and Conforming and Other Changes to Form No. FERC-714*, III F.E.R.C. STATS. & REGS. ¶ 30,980 (1993). *See also New Reporting Requirements Under the Federal Power Act and Changes to Form No. FERC-714*, III F.E.R.C. STATS. & REGS. ¶ 32,493, 58 Fed. Reg. 17,544 (1993) (notice of proposed rulemaking). Section 213(b) of EPAct required the Commission to issue such a rule. *See* 16 U.S.C.A § 824l(b) (West Supp. 1993).

18. This policy ("comparability standard") was announced in the context of an adjudication, and has been applied by the Commission on a case-by-case basis in other adjudications. *See American Elec. Power Serv. Corp. (AEP)*, 67 F.E.R.C. ¶ 61,168, at 61,490 (1994). For cases applying the *AEP* standard, see *Florida Power & Light Co.*, 67 F.E.R.C. ¶ 61,326 (1994); *Commonwealth Edison Co.*, 67 F.E.R.C. ¶ 61,325 (1994); *Northern States Power Co.*, 67 F.E.R.C. ¶ 61,240 (1994); *Kansas City Power & Light Co.*, 67 F.E.R.C. ¶ 61,183 (1994) (applying comparability standard to request for market-based rates); *El Paso Elec. Co.*, 68 F.E.R.C. ¶ 61,182 (1994) (requiring that all public utilities proposing mergers provide comparable transmission services to third parties); *Heartland Energy Servs., Inc.*, 68 F.E.R.C. ¶ 43,833 (1994) (applying comparability standard to request by affiliated power marketer for market-based rates) (stating that comparable transmission tariff must be filed for transmission owner to mitigate transmission market power).

19. *See* 67 F.E.R.C. ¶ 61,183, at 61,552.

20. *Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, IV F.E.R.C. STATS. & REGS. ¶ 32,507, 59 Fed. Reg. 35,274 (1994) (to be codified at 18 C.F.R. pt. 35) (proposed July 11, 1994) [hereinafter *Stranded Cost NOPR*].

21. *Florida Mun. Power Agency v. Florida Power & Light Co.*, 65 F.E.R.C. ¶ 61,125, at 61,615 (1993), *reh'g dismissed*, 65 F.E.R.C. ¶ 61,372 (1993), *final order*, 67 F.E.R.C. ¶ 61,167 (1994).

Stranded Cost NOPR proposes a policy for addressing the economic consequences of more widespread transmission access. Historically, electric utilities entered into long-term contracts to make wholesale requirements sales and planned on a long-term basis to meet their service obligations to serve retail electricity customers. In order to meet such obligations, and based on the experience that wholesale customer contracts typically were renewed, electric utilities may have constructed generating facilities, or entered into long-term fuel or purchased power contracts. As a result of increasing competition in wholesale power generation and increasing access to wholesale transmission service, however, customers now are able to reach competing suppliers. Consequently, there is the possibility that the costs associated with fulfilling long-term wholesale supply obligations will be stranded as customers depart for alternative suppliers. Also, the prospect of direct access for retail electric customers (so-called retail wheeling) creates the possibility that costs incurred to honor the retail franchise service obligation will also be stranded. Should stranded costs be incurred, and should there be no way to recover such costs from departing customers, one of two things can happen: either the remaining customers' rates go up (as the utility's revenue requirement must be spread over a diminishing customer base), or corporate shareholders bear the costs (which could indirectly result in higher rates for consumers). Therefore, the Commission must balance the benefits to consumers of increased transmission access against the potential harm to consumers from stranded cost liability.

A recent decision of the United States Court of Appeals for the D.C. Circuit, *Cajun Electric Power Cooperative, Inc. v. FERC* (*Cajun*),[22] focused on another dimension of the linkage between transmission access and stranded costs. There, the issue was whether an electric utility retained market power as a result of the stranded cost recovery provision proposed by the company as part of an open access transmission tariff. The court found that the Commission erred in not setting the matter for hearing. The court focused intently on claims made by the petitioning wholesale customer that the stranded cost provision in question was anticompetitive. Indeed, at one point in the decision, the court stated that, in the sense that it frustrated the competitive market, "a stranded cost provision is the antithesis of competition."[23] Thus, according to the *Cajun* court, in addressing the stranded cost question, the Commission must account for the potentially anticompetitive effects of permitting recovery of stranded costs as part of FERC-approved rates. Others have argued, however, that this concern must be balanced against the private and public interests in an orderly transition from a comprehensively regulated electric power market to a market characterized by greater competition.

This article will focus on transmission access and stranded costs, and compare the Commission's experience with the natural gas industry restructuring to its recent attempts to address these issues in its regulation

22. Cajun Elec. Power Coop., Inc. v. FERC, 28 F.3d 173 (D.C. Cir. 1994).
23. *Id.* at 179.

of the electric power industry.[24] In evaluating the Commission's post-EPAct electric policy initiatives, and any forthcoming regulatory changes which may be required to facilitate a competitive bulk power market, the Commission and stakeholders in the electric policy debate should ask: What lessons, if any, can be drawn from the Commission's involvement in the restructuring of the natural gas market? Furthermore, they should ask: Are these lessons applicable to the Commission's emerging policy for electric power industry regulation?

In answering these questions, this article posits the following thesis. First, there are valid general parallels between the issues addressed by the Commission in the restructuring of the natural gas industry and the issues that it currently faces in restructuring the electric power industry. Second, while the Commission has drawn on its natural gas experience in formulating its policy regarding electric transmission access, the Commission also has demonstrated an understanding of the physical, structural, and legal differences between the electric power and natural gas industries. Third, while to date the Commission has not promulgated generic restructuring orders for the electric power industry along the lines of the natural gas Orders 436 and 636, it remains to be seen whether further steps will be required to realize fully the goal of more competitive bulk power markets. Should this be necessary, the extent to which the development of FERC's policies for regulating the electric power industry continues to parallel its policies for regulating the natural gas industry will depend on the relevance of the differences in the legal, institutional, and operational frameworks for the two industries to the development of such policies. Should FERC's conceptual framework for regulating the electric power industry come to be premised to a greater extent upon the unique characteristics of electricity as a commodity, then the direct relevance of FERC's natural gas restructuring experience would be diminished.

First, this article will briefly discuss the similarities and differences between federal electric and natural gas regulation and the electric power and natural gas industries. Second, it will explain the key reasons for concluding that the Commission's natural gas experience is relevant to its emerging electric policy. In this regard, five general parallels in FERC's electric and natural gas policies will be reviewed. Third, it examines two of the touchstones of federal natural gas and electric utility regulatory poli-

24. Although transmission access and transition cost recovery perhaps are the two most significant parallels in the recent development of FERC's electric and natural gas policies, there are other issues where FERC's experience with the natural gas restructuring has been relevant in the development of its emerging electric policy. For example, FERC's policy for regulating affiliated power marketers has been influenced by the experience with interstate pipeline marketing affiliates. In other areas, similar issues are presented in the regulation of both industries. For example, setting prices for interstate pipeline transportation and electric transmission service involves similar concepts and problems, particularly with respect to rates for new facilities. In addition, natural gas bypass and electric retail wheeling raise the same fundamental economic questions, but present different legal issues. These other parallels present interesting issues for a comparative analysis of FERC's electric and natural gas policy development, but are beyond the scope of this article.

cies: the use of open access to transportation and transmission services[25] to promote the development of competitive markets, and the need for regulatory policies to address the economic costs associated with the development of competitive markets. Fourth, this article will offer some thoughts on the implications of the natural gas restructuring for the electric industry transition, and note some key differences which may mean that the evolution of the Commission's model for regulation of the electric power industry ultimately may be different than the model for the natural gas industry restructuring.[26]

II. INDUSTRY STRUCTURES, LEGAL FRAMEWORK, AND EVOLUTIONARY DIFFERENCES

A. Industry Structures

Differences in the structure and operation of the natural gas and electric power industries could affect the manner in which the FERC regulates the industries and the relative significance of state and federal regulation to the respective industries.

In contrast to the segmented nature of the natural gas industry, firms in the electric power industry have traditionally been vertically integrated.[27] Investor-owned utilities (IOUs)[28] are the dominant form of utility in the traditional electric utility industry.[29] IOUs currently account for

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25. For purposes of this article, generally, the term "transmission" is used when referring to electricity transmission, and "transportation" is used when referring to natural gas transportation. When these services are discussed generically, this article uses the terms interchangeably.

26. This article limits itself to issues that are subject to FERC's jurisdiction. In doing so, the intent is not to ignore the role of state regulation in responding to and affecting the forces of change in the electric power industry.

27. *See, e.g.*, EDWARD KAHN, ELECTRIC UTILITY PLANNING AND REGULATION 16-21 (1988) ("[F]irms in the natural gas industry are not fully integrated from production to distribution, whereas in electricity they are. Therefore a multiplicity of suppliers (producers) can be available in a gas distribution market. In the electric industry, the historical role of production scale economies has led firms to be vertically integrated.") (describing close relationship between equipment vendors and purchasing utilities as leading to vertical integration and holding company structures prevalent in the 1900-1930 era) [hereinafter ELECTRIC UTILITY PLANNING]; II ALFRED E. KAHN, THE ECONOMICS OF REGULATION: PRINCIPLES AND INSTITUTIONS 70-74 (1971) (generally describing history of development of electric power industry and holding company structure) [hereinafter ECONOMICS OF REGULATION]; PAUL J. GARFIELD & WALLACE F. LOVEJOY, PUBLIC UTILITY ECONOMICS 438-42 (1964) (describing vertical integration and emergence of holding company structure).

28. An investor owned utility is defined as "an entity operated for profit, and financed by the contributions of its owners (equity) as well as by borrowed funds (debt). It is usually organized as a corporation, with diverse owners able to buy and sell shares on established stock markets." CONGRESSIONAL RESEARCH SERVICE, ELECTRICITY: A NEW REGULATORY ORDER?, 102d Cong., 1st Sess. 71 (1991) [hereinafter NEW REGULATORY ORDER].

29. The Energy Information Administration (EIA) of the U.S. Department of Energy classifies the following as "traditional" electric utilities: investor-owned utilities, publicly-owned utilities, federal utilities, and cooperative electric utilities. ENERGY INFORMATION ADMINISTRATION, U.S. DEPARTMENT OF ENERGY, ELECTRIC POWER ANNUAL 1992, at 1 (1994) [hereinafter POWER ANNUAL]. In contrast, EIA defines nonutility power producers as the following:

> [A]ny person, corporation, municipality, State political subdivision or agency, Federal agency, or other legal entity that either: (1) produces electric energy as a qualifying facility (QF) under

more than 75% of all U.S. electric utility industry generating capability, generation, sales, and revenue.[30] The vast majority of IOUs perform all of the following three industry functions: the generation of electricity, the transmission of that electricity, and the retail distribution of that electricity.[31]

Due in part to the integrated nature of services provided by most firms in the industry, as well as the jurisdictional responsibilities specified in the applicable federal and state statutes, federal and state regulators, generally, have jurisdiction over different functions performed by the same traditional electric utility.[32] The Commission regulates a traditional electric utility's transmission services and its wholesale sale of electric energy in interstate commerce.[33] State regulators have jurisdiction, generally, over the same traditional utility's retail operations. For the typical electric utility, a far greater percentage of its assets is dedicated to retail operations than is dedicated to wholesale operations.[34]

As distinguished from the natural gas industry, which is characterized by an increasingly North American market, the electric industry is characterized primarily by regional markets.[35] As a general matter, unlike a natural gas distributor which must acquire its gas supplies from distant production areas, a traditional electric utility may meet its retail customers' demands by utilizing its own assets and relying on operations performed wholly within its retail service territory. Transmission links between utilities were established in the first place for promoting reliability; wholesale trades utilizing these facilities were incidental to this primary purpose.[36] Also, due to line losses, long distance power transactions generally are

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the Public Utility Regulatory Policies Act (PURPA); or (2) produces electric energy but is primarily engaged in the business activities other than the sale of electric energy, such as agriculture, mining, manufacturing, transportation, or education.

Id. at 1 n.1.

30. *Id.* Further, vertically integrated companies, which include other types of traditional electric utilities, produce 93% of the nation's electricity and make 95% of all sales to ultimate customers. NEW REGULATORY ORDER, *supra* note 28, at 71. In recent years, however, non-utility generators have gained an increasing share of the bulk power market. CHANGING STRUCTURE, *supra* note 6, at 3.

31. POWER ANNUAL, *supra* note 29, at 1.

32. *See infra* notes 53-60 and accompanying text (discussing generally federal and state jurisdiction over electric utilities).

33. *See* 16 U.S.C. §§ 824(a),(b)(1) (1988).

34. CHARLES G. STALON, FEDERAL ENERGY REGULATORY COMMISSION, ELECTRICITY TRANSMISSION: REALITIES, THEORY AND POLICY ALTERNATIVES 17-18 (1989) [hereinafter STALON REPORT] (direct retail sales comprise about 62% of all electric utility sales; only about 14% of all retail sales is supplied through sources outside of a utility's control area).

35. *See, e.g.*, OFFICE OF TECHNOLOGY ASSESSMENT, ELECTRIC POWER WHEELING AND DEALING: TECHNOLOGICAL CONSIDERATIONS FOR INCREASING COMPETITION 36-37 (1989) [hereinafter WHEELING AND DEALING] (stating that transmission barriers between the three major interconnections in the United States (Eastern, Western, and Electric Reliability Council of Texas) effectively limit market areas for electric power in the United States, and that little opportunity exists for long-distance power transfers); William L. Massey, *Transition to Competition: Federal Initiatives and Industry Opportunities*, ELECTRICITY J., Jan. 1993, at 28 (efficacy of Commission's RTG policy based on assumption that market will evolve regionally).

36. *See, e.g.*, STALON REPORT, *supra* note 34, at 6-26.

uneconomic. Therefore, the transmission grid was not developed for the same purposes as the interstate natural gas pipeline network.

Differences in the physical nature of natural gas and electricity have implications for how the industries operate. Electricity flows at near the speed of light and generally cannot be stored.[37] Consequently, electricity must be generated as needed. Further, every flow of power from a generating facility to a distribution system affects the entire transmission network, not just the most direct transmission path.[38] Thus, operation of the power system must be closely coordinated in order to ensure reliability and maximize efficiency. In contrast, natural gas flows through transmission pipelines at a rate of 15 to 25 MPH and cannot be stored.

There also is a difference in the basis on which competition occurs in the natural gas and electric power industries. In the natural gas industry, there is competition both in the sale of gas as a commodity, and in the transportation of natural gas between interstate pipelines that serve the same consuming market or access the same producing region.[39] In the electric power industry, the potential now exists for a competitive market in the wholesale generation of electric power, but there currently is little or no competition between utilities for the transmission of power.[40]

Furthermore, the nature of the production of electricity is different than the production of natural gas. Electricity is produced by generators of varying age, size, and fuel type. Accordingly, because variable costs of generation vary, sometimes on a daily or hourly basis, the most efficient resource mix to meet load may also vary on a daily or hourly basis.[41] The process of dispatching units in this manner, called economic dispatch, is a feature unique to the electric industry.

Partly because of economic dispatch, pooling of units is an essential part of electric industry functions. Certain industry institutions have grown up around pooling, and the benefits of pooling have been widely recognized. Pools provide benefits such as coordinated planning and development to meet future needs, economic dispatch of generation, and improved reliability among members.[42] With respect to the interrelationship between economics, planning, and reliability:

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37. WHEELING AND DEALING, *supra* note 35, at 12 (pumped storage hydroelectric facilities store energy, but not electricity).

38. WHEELING AND DEALING, *supra* note 35, at 12.

39. In production areas served by more than one pipeline and in market areas served by multiple pipelines, pipelines will compete for business, discounting their rates if necessary. Even where there is only one pipeline serving an area, the pipeline itself may have to compete with firm shippers releasing capacity. *See, e.g.*, BRANKO TERZIC, FEDERAL ENERGY REGULATORY COMMISSION, COMPETITION IN NATURAL GAS TRANSPORTATION (1993). *See also* Order No. 636-A, III F.E.R.C. STATS. & REGS. ¶ 30,950, at 30,556 (1992) ("The Commission adheres to the requirement in Order No. 636 that pipeline capacity (firm and interruptible) must compete with released capacity. Competition between pipeline capacity and released capacity helps ensure that customers pay only the competitive price for the available capacity.").

40. STALON REPORT, *supra* note 34, at 73.

41. STALON REPORT, *supra* note 34, at 23.

42. NEW REGULATORY ORDER, *supra* note 28, at 66.

> Membership in a power pool helps to increase the reliability of the interconnected utilities while reducing the required reserves of individual members. This occurs because of a major benefit of pooling and interconnection, namely the ability to take advantage of the diversity in usage patterns between utilities. This ability permits a utility peaking at a given time to use the temporary excess capacity of a company peaking at a different time. As a consequence, each intertied utility experiences a decrease in the quantity of generating and reserve capacity required to support the system.[43]

Pools can be "tight," or "loose."[44] Tight pools are highly interconnected, provide for central dispatch, and plan operations on a single-system basis. Loose pools are less formal—they may have general agreements to plan for overall generation and transmission needs, or "more structured arrangements for interchanges, shared reserve capacity, and transmission services."[45]

Due to the physical characteristics of electricity noted above, traditionally there has been greater concern about service reliability for electricity than for natural gas. This is typified by the close coordination in the operation of the power system and by the reliance on pools to ensure reliability and efficiency.[46]

Notwithstanding the differences in industry structures discussed above, there is one over-arching similarity between the natural gas and electric power industries: the transmission/transportation and distribution functions remain effective monopolies, and therefore continue to be subject to traditional forms of regulation, which typically involve setting rates on the basis of depreciated original cost. In general, transmission and transportation remain monopoly functions (some argue "natural" monopolies) because they must be integrated in order to achieve society's preferred level of reliability, and because economies of scale dictate that duplication is an inefficient way to provide the necessary services.[47]

Further, in theory, the fact that the transportation function is a monopoly means that transmission-owning electric utilities and natural gas pipelines are able to maintain market power in the transportation product market, and may exercise market power in the product markets for delivered gas or electricity as a result of transportation market power.[48] The D.C. Circuit's recent *Cajun Electric Power Cooperative, Inc. v. FERC*

43. NEW REGULATORY ORDER, *supra* note 28, at 66. The planning function of power pools is supplemented by the nine regional councils of the North American Electric Reliability Council (NERC). NEW REGULATORY ORDER, *supra* note 28, at 67.

44. *See* WHEELING AND DEALING, *supra* note 35, at 37.

45. WHEELING AND DEALING, *supra* note 35, at 37.

46. While the benefits to be derived from pooling are high, some have questioned whether pools are intrinsically incompatible with competition. *Compare* WHEELING AND DEALING, *supra* note 35, at 37 (citing study projecting annual savings to consumers from pooling of approximately $20 billion by the mid-1990s) *with* STALON REPORT, *supra* note 34, at 24-25. Pools thus may illustrate "the twin dangers of intercompany coordination: that the parties will cooperate too well and that they will do so too little, or with excessive selectivity." ECONOMICS OF REGULATION, *supra* note 27, at 314-23 (discussing generally the problems and benefits of pooling).

47. ECONOMICS OF REGULATION, *supra* note 27, at 152-53; NEW REGULATORY ORDER, *supra* note 28, at 238.

48. *See generally* STALON REPORT, *supra* note 34, at 72-93.

(*Cajun*) decision illustrates the practical consequences of this relationship between an electric utility's monopoly power in transmission, and its effect on market power in the market for electricity sales.[49]

For both the natural gas and electric power industries, the means chosen by policy makers to promote competition in the product markets for delivered natural gas and electricity has been to mitigate the transportation monopolists' market power by means of open access mandates. One of the consequences of the transition from a regime in which the monopolists were the regulated suppliers of energy commodities to one in which they face competition in the commodity markets is the possibility that transition costs will be incurred. For example, in Order 636 the Commission recognized that, as a result of implementing the restructuring rule, pipelines were likely to incur costs associated with gas purchase obligations, assets, and regulatory accounting associated with fulfilling service obligations imposed under the regulatory requirements superseded by Order 636.[50]

B. FERC's General Statutory Authority in Natural Gas and Electricity

The Commission regulates the natural gas industry primarily under the Natural Gas Act (NGA).[51] It regulates the electric power industry under part II of the FPA, as amended by the Public Utility Regulatory Policies Act of 1978 (PURPA)[52] and EPAct.

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49. 28 F.3d 173 (D.C. Cir. 1994). In *Cajun*, "both parties agreed at oral argument, the primary source of Entergy's market power in generation sales is its bottleneck monopoly in transmission services." *Id.* at 176 (footnote omitted). The court held that, because the petitioners raised several factual issues which indicated that the company might retain significant market power notwithstanding its proposed open access transmission tariff, the FERC erred in not setting the tariff for evidentiary hearing.

50. In particular, the Commission recognized four types of transition costs that pipelines likely would incur as a result of implementing the restructuring rule: (1) unrecovered gas costs (or credits) remaining in the purchased gas adjustment (PGA) Account No. 191; (2) costs resulting from gas supply contract realignment (GSR); (3) "stranded costs," the costs of a pipeline's assets then used to provide bundled sales service, such as gas in storage, and capacity on upstream pipelines, that would no longer be needed to serve customers under unbundled services; and (4) "new facility costs," costs associated with physically implementing the rule (e.g., meters, valves, and communications equipment). Order No. 636, *Pipeline Service Obligations and Revisions to Regulations Governing Self-Implementing Transportation; and Regulation of Natural Gas Pipelines After Wellhead Decontrol*, III F.E.R.C. STATS. & REGS. ¶ 30,939, at 30,457 (1991).

51. The price and allocation of natural gas at the wellhead have been decontrolled pursuant to the Natural Gas Policy Act of 1978 (NGPA), 15 U.S.C. §§ 3301-3442 (1988), and the Natural Gas Wellhead Decontrol Act of 1989 (Wellhead Decontrol Act), Pub. L. No. 101-60, 103 Stat. 157 (1989). Some provisions of the NGPA remain relevant to the Commission's ongoing regulatory program. Principal among these is § 311(a), 15 U.S.C. § 3371(a) (1988), pursuant to which NGA rate and certificate requirements do not apply to interstate natural gas transportation in specified circumstances.

52. Pub. L. No. 95-617, 92 Stat. 3117 (codified as amended at 16 U.S.C. §§ 2601-2645 (1988)). Under PURPA, the Commission, among other things, certifies certain alternative energy producing facilities as "Qualifying Facilities" (QFs). Utilities must purchase electricity from QFs at avoided cost. *See generally* 16 U.S.C. § 824a-3 (1988) (within one year from date of enactment, Commission was directed to prescribe rules to encourage cogeneration and small power production, and rules to require electric utilities to sell electric energy to qualifying cogeneration and small power production facilities, and to purchase energy from such facilities). *See also* 18 C.F.R. § 292.203 (1993) (general requirements for QF certification); 18 C.F.R. § 292.207 (1993) (procedures for obtaining qualifying status); 18 C.F.R.

Both the FPA and the NGA are New Deal era statutes that were intended to fill the jurisdictional gap resulting from Supreme Court decisions limiting state jurisdiction over interstate electric and gas transactions.[53] The statutes establish a framework for federal regulation of the interstate transmission and wholesale sale of electricity and natural gas, respectively.[54]

Both statutes, however, restrict the scope of federal regulation. Section 201(a) of the FPA states that federal regulation extends "only to those matters which are not subject to regulation by the States."[55] Section 201(b) states more explicitly that, unless expressly reserved under part II or part III of the FPA, the Commission's FPA jurisdiction does *not* extend "over facilities used for the generation of electric energy or over facilities for the transmission of electric energy in intrastate commerce, or over facilities for the transmission of electric energy consumed wholly by the transmitter."[56] Thus, state regulators' jurisdiction over a traditional electric utility's retail operations include: retail rate setting, construction and siting of generating and transmission facilities,[57] local distribution, and intrastate transmission.[58] Similarly, section 1(b) of the NGA states that, but for the interstate transportation of natural gas, sales for resale of natural gas in interstate commerce, and natural gas companies engaged in such activities, the Commission's NGA jurisdiction does *not* extend "to any other transportation or

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§§ 292.303 to .304 (1993) (electric utility obligations to purchase from QFs; guidance for state-determined avoided cost rates).

PURPA also amended the FPA by adding §§ 210, 211, and 212. Section 210 gives the FERC the authority to order interconnections in certain circumstances. *See* 16 U.S.C.A. § 824i (West 1988). Section 211 initially gave the Commission the authority to order wheeling, in limited circumstances, but has been amended by EPAct such that the Commission's authority to order wheeling under that section of the law is significantly enhanced. 16 U.S.C.A. § 824j (West 1988 & Supp. 1993). Section 212, as amended by EPAct, sets out the guidelines the Commission must follow when pricing transmission services ordered under § 210 or § 211. 16 U.S.C.A. § 824k (West 1988 & Supp. 1993).

53. Public Utils. Comm'n v. Attleboro Steam & Elec. Co., 273 U.S. 83 (1927); Missouri v. Kansas Gas Co., 265 U.S. 298 (1924); Pennsylvania v. West Va., 262 U.S. 553 (1923).

54. Under § 201(b)(1) of the FPA, the Commission's jurisdiction extends "to the transmission of electric energy in interstate commerce and to the sale of electric energy at wholesale in interstate commerce," and to "all facilities for such transmission or sale of electric energy." 16 U.S.C. § 824(b) (1988). Under § 1(b) of the NGA, the Commission's jurisdiction extends "to the transportation of natural gas in interstate commerce, to the sale in interstate commerce of natural gas for resale for ultimate public consumption . . . and to natural gas companies engaged in such transportation or sale." 15 U.S.C. § 717(b) (1988).

55. 16 U.S.C. § 824f(a) (1988).

56. *Id.* § 824b(1).

57. *PSI Energy, Inc.*, 55 F.E.R.C. ¶ 61,254, at 61,811 (1991), *reh'g denied*, 56 F.E.R.C. ¶ 61,237 (1991).

58. *See* 16 U.S.C. § 824(a)-(b)(1) (1988). The Supreme Court has found that federal jurisdiction over transmission depends upon whether energy flows in interstate commerce as a technical matter. Connecticut Light & Power Co. v. FPC, 324 U.S. 515, 529 (1945); FPC v. Florida Power & Light Co., 404 U.S. 453 (1972). The Court also found that it is impossible to determine when electrons cross state lines. *See* Jersey Cent. Power & Light Co. v. FERC, 319 U.S. 61, 71 (1943). Because electrons commingle on the transmission grid, and do not confine themselves within a state's boundaries, the vast majority of transmission (as distinguished from distribution) can probably be considered under these court decisions as interstate transmission, rather than intrastate transmission.

sale of natural gas or to the local distribution of natural gas or to the facilities used for such distribution or to the production or gathering of natural gas."[59]

In many other cases, the statutory language of the FPA and the NGA are closely parallel. This is particularly true with respect to the general ratemaking authority and the statutory standards for lawful rates, terms, and conditions in sections 205 and 206 of the FPA and sections 4 and 5 of the NGA, which provide generally that rates shall be "just and reasonable."[60] In fact, the federal courts have held in some cases that precedent developed under one of the statutes was applicable to the parallel provision of the other statute.[61]

Still, there are significant differences in the statutory schemes set out in the FPA and NGA.[62] These differences have had a profound effect on the manner in which the industries have been regulated by the FERC, and by its predecessor, the Federal Power Commission. The most important of these differences relate to the Commission's jurisdiction over, and regulation of, natural gas transportation and electricity transmission. As described below, the two main differences between the statutes are: (1) the Commission's authority to issue certificates for interstate pipeline construction, as compared to the lack of federal siting authority for transmission lines; and (2) the Commission's imposition under its general ratemaking and certificate authority of open access conditions on interstate pipeline transportation services, as compared to its specific authority to order electric transmission services pursuant to FPA sections 211 and 212.

C. *Differences in Jurisdiction Over Transmission and Transportation*

Under section 7(c) of the NGA, a certificate of public convenience and necessity is required before a natural gas company can construct and operate a jurisdictional facility or initiate a jurisdictional service.[63] The

59. 15 U.S.C. § 717(b) (1988).

60. *Compare* 16 U.S.C. § 824d (1988) *with* 15 U.S.C § 717c (1988). Unlike § 5 of the NGA, however, § 206 of the FPA provides for the establishment of a refund effective date upon the initiation of a customer complaint regarding, or investigation by the Commission into, wholesale rates, charges, terms, and conditions. *See* 16 U.S.C. § 824e(b) (1988). Under § 5 of the NGA, just and reasonable rates established as a result of a complaint or a Commission initiated investigation are effective prospective only from the date of the Commission's final order in a given § 5 case. *See* 15 U.S.C. § 717d (1988).

61. *See, e.g.*, FPC v. Sierra Pac. Power Co., 350 U.S. 348, 353 (1956).

62. Other than the differences described in detail herein, the FPA grants the Commission certain authorities which are not granted by the NGA. *See, e.g.*, 16 U.S.C. § 824b(a) (1988) (public utilities must secure FERC order before: selling, leasing, or otherwise disposing of jurisdictional facilities in excess of $50,000; merging or consolidating jurisdictional facilities with those of any person; or purchasing, acquiring, or taking a security of another public utility); *id.* § 824c (describing FERC jurisdiction over, among other things, public utility securities issuances or assumption of certain liabilities); *id.* § 824f (describing Commission jurisdiction upon complaint by a state commission to fix proper, adequate, or sufficient service).

63. 15 U.S.C. § 717f(c) (1988). Also, under NGA § 7(b), FERC approval is required before a natural gas company may abandon jurisdictional facilities or services rendered using such facilities. *Id.* § 717f(b).

FERC also has the authority to attach to the issuance of a certificate "such reasonable terms and conditions as the public convenience and necessity may require."[64] Once the FERC decides that a pipeline or other facility is in the public convenience and necessity, it has authority under section 7(h) of the NGA[65] to grant a certificate holder eminent domain to take the property necessary for a right-of-way to construct, operate, and maintain the pipeline or other jurisdictional facility. This authority effectively preempts state or local interests from blocking the facility's construction and operation.

There is no parallel provision in the FPA. The Commission lacks certificate jurisdiction under the FPA, and the siting and authorization of transmission facilities is subject to state, not federal regulation.[66] In addition, if transmission facilities require expansion as a result of a FERC order pursuant to section 211 of the FPA, Congress recognized that states have explicit authority to reject the proposed transaction by denying authority for siting the required new facilities.[67] Historically, the regional reliability councils have been responsible, in part, for coordinating regional transmission planning.[68] Still, even when transmission planning is done on a regional basis, authorization for siting is obtainable only at the state level.[69]

It is unclear whether the lack of federal siting authority for transmission lines has affected the ability to construct adequate transmission capacity. There are some indications that in densely populated areas, in particular, state authorities may be reluctant to site transmission lines which do not directly benefit local ratepayer interests.[70] This problem may become particularly acute due to increased public interest in, and awareness of, the controversy over the alleged health risks associated with Elec-

64. *Id.* § 717f(e).

65. *Id.* § 717f(h).

66. *PSI Energy, Inc.*, 55 F.E.R.C. ¶ 61,254, at 61,811 (1991) ("The Commission does not have siting or certification authority with respect to transmission lines under Part II of the Federal Power Act. . . . [T]he Commission's authority is limited to a review of the rates, terms and conditions of jurisdictional agreements to ensure that they are just and reasonable and not unduly discriminatory or preferential."), *reh'g denied*, 56 F.E.R.C. ¶ 61,237 (1991); *Policy Statement Regarding Regional Transmission Groups*, III F.E.R.C. STATS. & REGS. ¶ 30,976, at 30,874 (1993) (coordination with states is critical to RTG formation because states have authority over, among other things, siting of transmission facilities). *Cf.* 16 U.S.C. § 824(a) (1988) (Federal regulation shall extend to part of electric utility business "which consists of the transmission of electric energy in interstate commerce and the sale of such energy at wholesale in interstate commerce. . . . " However, such federal regulation extends "only to those matters which are not subject to regulation by the states.").

67. 16 U.S.C.A. § 824j(d)(1)(C) (West 1988 & Supp. 1994) (transmitting utility will not have to provide service under § 211 if it is unable (after making a good faith effort) to obtain the necessary approvals or property rights under applicable federal, state and local laws).

68. *See* STALON REPORT, *supra* note 34, at 10 & n.4.

69. In its RTG Policy Statement, the FERC recognized the need for regional transmission planning and that state officials must be part of the RTG process. *Policy Statement Regarding Regional Transmission Groups*, III F.E.R.C. STATS. & REGS. ¶ 30,976, at 30,872, 30,874 (1993). In theory, the RTG process may be viewed as a substitute for federal siting authority, because the RTG is intended to address planning on the basis of needs of the region instead of the needs of individual states.

70. STALON REPORT, *supra* note 34, at 42-43 (citing National Governor's Association Study).

tromagnetic Fields (EMFs).[71] The importance of siting authority also may become more apparent as key transmission corridors become increasingly congested. Although there is no clear evidence that state siting authority has had a negative effect on national transmission needs, or that federal siting authority would be in any way preferable to the present system, this issue has drawn increasing interest.[72]

The second major difference between the two statutes is with respect to specific authority to compel transportation and transmission services. Section 211 of the FPA, as added by PURPA and amended by EPAct, now grants the Commission express authority to order transmission service, with certain limitations. The importance of section 211 has been summarized by the Commission as follows:

> [W]ith the exception of certain authority to address war and emergency conditions (now the responsibility of the Department of Energy), 16 U.S.C. §§ 824a(c) and (d), Congress did not give the Commission the explicit authority to order transmission. This changed in 1978 when Congress, as part of [PURPA] added section 211 of the FPA, which gave the Commission general authority to order electric utilities to provide transmission to, *inter alia*, other electric utilities. However, section 211 of the FPA, as enacted in PURPA, was largely unused because the Commission could only order transmission if the Commission determined that the order would "reasonably preserve existing competitive relationships." [EPAct] has significantly expanded the Commission's authority to order transmission services under section 211.[73]

In contrast, the NGA contains no explicit authority for the FERC to order access to interstate natural gas transportation service.[74]

Although the FPA and the NGA differ in the respect that the NGA contains no equivalent to section 211, both statutes prohibit regulated entities from charging rates and maintaining terms and conditions of transmission or transportation service that are unduly discriminatory.[75] Prior to EPAct, the Commission never fully tested the legality of ordering transmis-

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71. *See generally* OAK RIDGE ASSOCIATED UNIVERSITIES, HEALTH EFFECTS OF LOW-FREQUENCY ELECTRIC AND MAGNETIC FIELDS (1992).

72. *See, e.g.*, Tape of Transmission Pricing Technical Conference Before the Federal Energy Regulatory Commission (April 7, 1994) (on file with Federal Energy Regulatory Commission) (testimony of various panelists describing difficulties of siting transmission); *GPU Abandons 500-MW DQE Purchase and a Proposed 268-Mile, 500-kV Line*, ELECTRIC UTIL. WK., Dec. 13, 1993, at 3 (describing opposition to new transmission line and hearing process before state authorities). *But see GPU Ends Transmission Line, Plant Renewal Deal with DQE*, ELECTRIC LIGHT & POWER, Feb. 1994 (company spokesman believed siting approval was probable); NEW REGULATORY ORDER, *supra* note 28, at 46-47.

73. *Policy Statement Regarding Regional Transmission Groups*, III F.E.R.C. STATS. & REGS. ¶ 30,976, at 30,869 (1993) (emphasis in original).

74. *See* 16 U.S.C. § 824a(b) (1988); *cf.* 15 U.S.C. § 717f(a) (1988). Section 7(a) of the NGA grants the FERC authority to order an interstate pipeline to establish a connection between its facilities and the facilities of a local distribution company (LDC), and to order the pipeline to sell natural gas to such an LDC. This section of the NGA is limited by its terms to connections with LDCs, does not expressly mention transportation service, and has not been used by the FERC to promote open access transportation. Section 202(b) is the analogous provision in the FPA.

75. Both § 205 of the FPA and § 4 of the NGA state that the relevant jurisdictional entities shall not "(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,

sion under the authority to remedy undue discrimination under FPA sections 205 and 206.[76] In contrast, notwithstanding the lack of a specific authority similar to section 211, the Commission in 1985, in Order 436,[77] imposed an open access condition on any interstate pipeline that accepted a blanket transportation certificate issued pursuant to section 7 of the NGA.[78] FERC's broad authority to mandate interstate pipelines to provide open access to their natural gas transportation systems was upheld by the U.S. Court of Appeals for the D.C. Circuit in *Associated Gas Distributors v. FERC (AGD I)*.[79] This divergence in the development of the Commission's authority to order access (as between FERC's regulation of natural gas and electricity transportation) occurred notwithstanding the parallel nature of the statutory language of the FPA and the NGA with respect to the Commission's authority to remedy undue discrimination. Still, the EPAct amendments to section 211 of the FPA may have been necessary, at least in part,[80] because the courts previously had found that

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services, facilities, or in any other respect, either as between localities or as between classes of service." 16 U.S.C. § 824d(b) (1988); 15 U.S.C. § 717(b) (1988).

In addition, both statutes provide (in § 206 and § 5) that the Commission shall fix an appropriate rate when rates, terms, and conditions of service are found to be "unduly discriminatory, or preferential." 16 U.S.C. § 824e(a) (1988); 15 U.S.C. § 717d (1988). The foregoing statutory prohibitions have been referred to in short-hand as the prohibition against "undue discrimination." *See, e.g., American Elec. Power Serv. Corp.*, 67 F.E.R.C. ¶ 61,168, at 61,490 (1994) (citing Associated Gas Distribs. v. FERC, 824 F.2d 981, 998 (D.C. Cir. 1987) (noting statement of D.C Circuit that NGA "fairly bristles with concern for undue discrimination")).

76. *See Hearings on PUHCA Reform Provisions of the National Energy Strategy and the Republican Leader's Energy Task Force Proposals (H.R. 1301 and H.R. 1543) Before the Subcomm. on Energy and Power of the House Comm. on Energy and Commerce*, 102d Cong., 1st Sess. 22-34 (1991) (statement of Cynthia A. Marlette, Associate General Counsel, Federal Energy Regulatory Commission).

77. Order No. 436, *Regulation of Natural Gas Pipelines After Partial Wellhead Decontrol*, [1982-1985] F.E.R.C. STATS. & REGS. ¶ 30,665, 50 Fed. Reg. 42,408 (1985), *vacated and remanded*, Associated Gas Distribs. v. FERC, 824 F.2d 981 (D.C. Cir. 1987), *cert. denied*, 485 U.S. 1006 (1988), *readopted on an interim basis*, Order No. 500, [1986-1990] F.E.R.C. STATS. & REGS. ¶ 30,761, 52 Fed. Reg. 30,334 (1987), *remanded*, American Gas Assoc. v. FERC, 888 F.2d 136 (D.C. Cir. 1989), *readopted*, Order No. 500-H, [1986-1990] F.E.R.C. STATS. & REGS. ¶ 30,867, 54 Fed. Reg. 52,344 (1989), *reh'g granted in part and denied in part*, Order No. 500-I, [1986-1990] F.E.R.C. STATS. & REGS. ¶ 30,880, 55 Fed. Reg. 6605 (1990), *aff'd in part and remanded in part*, American Gas Assoc. v. FERC, 912 F.2d 1496 (D.C. Cir. 1990), *cert. denied*, 484 U.S. 1084 (1991).

78. The FERC characterized the Order 436 open access blanket certificate program as "voluntary." However, in reviewing Order 436, the Circuit Court of Appeals for the District of Columbia concluded that, in practice, pipelines would find it difficult, if not impossible, to avoid the open access requirement. The court's recognition of the practical reality of the open access requirement was summed up in the court's statement that "when a condemned man is given a choice between the noose and the firing squad, we do not ordinarily say that he has 'voluntarily' chosen to be hanged." Associated Gas Distribs. v. FERC, 824 F.2d 981, 1024 (D.C. Cir. 1987).

79. 824 F.2d 981, 1001 (D.C. Cir. 1987). The court found the open access condition to be a reasonable interpretation of FERC's authority: (1) under § 5 of the NGA "to stamp out undue discrimination"; (2) under § 7 "to approve certificates of service subject to 'such reasonable terms and conditions as the public convenience and necessity may require' "; and (3) under § 16 "to perform any and all acts . . . as it may find necessary or appropriate to carry out the [NGA's] provisions." *Id.*

80. *See* sources cited *supra* note 8 (describing key difference between pre-EPAct § 211, and post-EPAct § 211).

under the circumstances presented in several cases, the Commission lacked the authority to order wheeling under sections 205 and 206 of the FPA.[81]

The Commission recently has begun to explore the limits of its authority under sections 205 and 206 of the FPA. As described below in detail, FERC's authority under the FPA to remedy undue discrimination has been a key component of its post-EPAct approach to regulating transmission and introducing competitive forces to the bulk power market.[82]

D. FERC's Regulatory Responses to Emerging Competition in the Natural Gas and Electric Utility Industries

The most recent amendments to the statutory schemes for federal regulation of the natural gas and electric power industries have been consistent in terms of signalling Congressional intent to facilitate greater competition in the electric and natural gas industries. In the NGPA and the Natural Gas Wellhead Decontrol Act of 1989,[83] Congress recognized the competitiveness of the wellhead natural gas market. In PURPA and the EPAct, Congress encouraged the development of alternative technologies for electric generation (which spawned market entry opportunities for non-utility generators) and competitive wholesale power markets.

Still, regulatory policies which rely on market forces to yield fair and efficient delivery of utility services have been embraced more quickly for other regulated industries than for the electric power industry.[84] The perceived differences between the FPA and the NGA with respect to authority to order access to transmission and transportation, described above, may be only one reason for the slower competitive evolution of the electric industry as compared to the natural gas industry. More importantly, policy makers realized the commodity potential of natural gas and, consequently, the events that provided the basis for the FERC to require open access transportation as a means to remedy undue discrimination occurred earlier than in the electric industry. A good starting point for analyzing the differences in the recent evolution of the two industries is 1978, when Congress enacted both PURPA and the NGPA.

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81. In Otter Tail Power Co. v. U.S., 410 U.S. 366, 375-76 (1973), the Supreme Court stated that "there is no authority granted the Commission under Part II of the Federal Power Act to order [wheeling], for the bills originally introduced contained common carrier provisions which were deleted .... The common carrier provision in the original bill and power to direct wheeling were left to the 'voluntary coordination of electric facilities.' " *Cf.* New York State Elec. & Gas Corp. v. FERC, 638 F.2d 388, 401 (2d Cir. 1980) (post-PURPA case in which the court stated that the Commission's authority to order wheeling under the FPA is pursuant to §§ 211-12, not §§ 205-06), *cert. denied*, 488 U.S. 821 (1981).

When § 211 was added to the FPA by PURPA, the Conference Committee was not clear with respect to Congress' perceptions about the Commission's then-existing authority to order wheeling; however, the conference report states that PURPA was not intended to change FERC's existing authority. *See* H.R. CONF. REP. NO. 95-1750, 95th Cong., 2d Sess. 91-95 (1978) (accompanying H.R. 4018).

82. *E.g.*, *American Elec. Power Serv. Corp.*, 67 F.E.R.C. ¶ 61,168 (1994); *New England Power Pool*, 67 F.E.R.C. ¶ 61,042, *reh'g denied*, 67 F.E.R.C. ¶ 61,314 (1994).

83. Pub. L. No. 101-60, 103 Stat. 157 (1989) (codified in scattered sections of 15 U.S.C.).

84. Yergin, *supra* note 5.

The NGPA authorized partial wellhead decontrol in recognition of the *existing* competitiveness of natural gas production. The NGPA had a significant effect on the natural gas market with the result that the interstate natural gas market was rapidly transformed from one in which there was a perceived shortage of natural gas to one in which there was an actual excess of deliverability.[85] As a result, in the early 1980s the FERC needed to find a way to address the combination of excess wellhead deliverability, mounting pipeline take-or-pay obligations for high-priced gas, declining markets due to alternative fuel competition, and the inability of downstream markets (especially local distribution companies) to take advantage of the benefits of wellhead competition.[86]

As FERC's appreciation of the mounting problems grew, its response escalated from an *ad hoc* case-by-case approach to generic policies and industry-wide inquiries. By late 1983, the FERC had approved several special marketing programs (SMPs) intended to enable pipelines to recapture markets lost to dual fuel competition. These programs were challenged in the *Maryland People's Counsel* cases,[87] where the United States Court of Appeals for the D.C. Circuit remanded, and vacated in part, the blanket certificate program.[88] The *Maryland People's Counsel* decisions left the FERC with a choice: either remedy the undue discrimination by opening up its transportation programs to captive customers, or else discontinue its transportation programs as a means to get competitively priced gas to mar-

85. *See, e.g.*, Order No. 436, [1982-1985 Regs. Preambles] F.E.R.C. STATS. & REGS. ¶ 30,665, at 31,485, 31,487 n.67, 50 Fed. Reg. 42,408 (1985).

86. *See generally* Statement of Policy, *Take or Pay Provisions in Gas Purchase Contracts*, [1982-1985 Regs. Preambles] F.E.R.C. STATS. & REGS. ¶ 30,410, 47 Fed. Reg. 57,268 (1982) (applying as general policy a rebuttable presumption that take-or-pay costs attributable to a contractual obligation to take-or-pay for more than 75% of the annual deliverability under a producer purchase agreement will not be given rate base treatment in pipeline rates); Statement of Policy, *Off-System Sales*, 23 F.E.R.C. ¶ 61,140 (1983) (containing general policies governing the Commission's review of off-system sale proposals); Order No. 234-B, *Interstate Pipeline Blanket Certificates for Routine Transactions and Sales and Transportation by Interstate Pipelines and Distributors*, [1982-1985 Regs. Preambles] F.E.R.C. STATS. & REGS. ¶ 30,476, 48 Fed. Reg. 34,872 (1983) (expands categories of end-users eligible for self-implementing transportation service); Order No. 319, *Sales and Transportation by Interstate Pipelines and Distributors, Expansion of Categories of Activities Authorized Under Blanket Certificate*, [1982-1985 Regs. Preambles] F.E.R.C. STATS. & REGS. ¶ 30,477, 48 Fed. Reg. 34,875 (1983) (streamlines blanket certificate transportation procedures); *Inquiry on Impact of Special Marketing Programs on Natural Gas Companies and Consumers*, IV F.E.R.C. STATS. & REGS. ¶ 35,513, 49 Fed. Reg. 3193 (1984) (inquiry into ways to broaden eligibility criteria for SMP gas).

87. Maryland People's Counsel v. FERC, 761 F.2d 768 (D.C. Cir. 1985) (*MPC I*); Maryland People's Counsel v. FERC, 761 F.2d 780 (D.C. Cir. 1985) (*MPC II*).

88. In *MPC II*, the court remanded the blanket certificate program so the FERC could "fully consider and reasonably analyze" claims that the program was anticompetitive, because captive customers were denied the opportunity to take advantage of the program's benefits. 761 F.2d at 789. The court also vacated the blanket certificate orders "to the extent that they allow transportation of direct-sale gas to fuel-switchable, non-'high-priority' end users without requiring pipelines to furnish the same service to LDCs and captive consumers on nondiscriminatory terms." *Id.* In *MPC I*, FERC's SMP orders were found to be invalid. However, because those orders by their own terms already had expired, the court issued a certified copy of its opinion in lieu of a mandate.

kets and relieve pipelines of their deliverability problems.[89] FERC's response was Order 436 in which it imposed open access condition on any blanket transportation certificate issued pursuant to NGA section 7.[90]

In contrast to the NGPA which authorized partial wellhead decontrol in recognition of the existing competitiveness of natural gas production, Congress' enactment of PURPA in 1978 was a recognition that cogenerators and other non-traditional generators faced significant handicaps in selling power.[91] As a consequence of its steps to create a market for cogenerators and small power producers, PURPA sowed the seeds of the competitive generation market that sprouted in the 1980s. In addition, state-approved competitive bidding programs "paved the way for the growth of non-traditional utility generators."[92]

At the same time, technological advances, such as the improved efficiency of industrial-scale combustion turbines, facilitated market entry for new power generators.[93] These advances in technology were made against the backdrop of previous problems with the high costs of nuclear technology. This situation created an environment in which the traditional assumption about economies of scale in power generation began to be questioned.[94] Due to the combination of historical trends, policy changes fostering new market entrants, and advances in technology, growth in the non-utility generation sector was substantial.[95]

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89. Richard J. Pierce, Jr., *Reconstituting the Natural Gas Industry From Wellhead to Burnertip*, 9 ENERGY L.J. 1, 22-24 (1988).

90. While the court was careful in *AGD I* to say that its holding in *MPC II* did not compel the FERC to make the finding of undue discrimination in Order 436 that served as the basis for the open access blanket certificate condition, the court did say that "our decision in [*MPC II*] came about as close to endorsing the Commission's approach as Article III permits." Associated Gas Distribs. v. FERC, 824 F.2d 981, 1000 (D.C. Cir. 1987).

91. PURPA must be placed in historical context. First, prior to PURPA, non-utility generators were faced with selling power only to "disinterested" public utilities, and could not sell at retail because they did not have state-approved franchise areas. *See* Watkiss & Smith, *supra* note 10, at 453. Second, PURPA's passage, and the subsequent development of competitive forces in the electric industry can be traced to several antecedent historical trends: (1) stable/declining costs with increased reliability between 1945 and 1970; (2) significant increasing costs after 1970 due to sky-rocketing fuel costs, inflation, increased interest rates, plant construction delays/cancellations, prudence disallowances and declining demand leading to; (3) an industry perception of increased risk without appropriate returns, resulting in overly-cautious investment decisions. *See, e.g.*, KAHN, ELECTRIC UTILITY PLANNING, *supra* note 27, at 1-21.

92. *Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, IV F.E.R.C. STATS. & REGS. ¶ 32,507, at 32,863 (1994).

93. The viability of natural-gas fired combustion turbines and combined-cycle plants made independent power producers a viable market force. *See* NEW REGULATORY ORDER, *supra* note 28, at 19. This technology has been favored because gas prices are relatively low, capital costs are low, and construction times are quick. NEW REGULATORY ORDER, *supra* note 28, at 19.

94. NEW REGULATORY ORDER, *supra* note 28, at 10.

95. Between 1979 and 1988 total non-utility installed generation capacity increased 55%, and electricity produced by non-utility generators increased 144%. NEW REGULATORY ORDER, *supra* note 28, at 893. Furthermore, between 1979 and 1991, traditional electric utilities' share of power generation decreased from 97% to 91%. In addition, in 1989 traditional utilities' share of net capacity additions was just over 50%, and in 1990 and 1991, non-utilities provided more than half of the net capacity additions. CHANGING STRUCTURE, *supra* note 6, at 3.

It took several years following the enactment of PURPA for the competitive market to begin to develop.[96] In 1985, the Commission initiated proceedings to investigate how its regulatory policies ought to reflect the rapid changes in the bulk power marketplace. The Commission's Notice of Inquiry (NOI) provided interested parties with an opportunity to comment on the Commission's then-current policies regarding bulk power markets and transmission service.[97] In 1987, the Commission sponsored regional conferences which sought comment on the Commission's implementation of PURPA.[98] The 1985 NOI, regional PURPA conferences, and the perspectives gleaned by the Commission from industry comments led the Commission in 1988 to issue four notices of proposed rulemaking (1988 NOPRs).[99] The 1988 NOPRs addressed concerns raised in the NOIs and the PURPA conferences.

Although final rules never were adopted, the 1988 NOPRs contributed to the development of Commission policy. In particular, the Independent Power Producers' NOPR laid the foundation for the Commission's development of standards for approving market-based generation sales on a case-by-case basis.[100] The cumulative effect of this case-by-case experience was a recognition that the generation function (as opposed to the transmission function) was becoming increasingly competitive.[101] The Commission recognized further that cost-based regulation was unnecessary for generation sales where the seller lacked market power in the relevant generation

96. *But see, e.g.*, Opinion No. 203, *Public Serv. Co. of N.M.*, 25 F.E.R.C. ¶ 61,469 (1983) (experiment with generation pricing flexibility).

97. Notice of Inquiry, *Regulation of Electricity Sales-For-Resale and Transmission Service*, IV F.E.R.C. STATS. & REGS. ¶ 35,518 (1985) (*NOI Phase I*); Notice of Inquiry, *Regulation of Electricity Sales-For-Resale and Transmission Service*, IV F.E.R.C. STATS. & REGS. ¶ 35,519 (1985) (*NOI Phase II*). *NOI Phase I* addressed the Commission's regulation of coordination transactions and transmission service. *NOI Phase II* addressed the Commission's regulation of wholesale electric requirements service, focusing particular attention on the pricing and risk allocation policies toward requirements service. The Commission stated with respect to the NOI that its objective for both phases was to "investigate how its policies promote or impede efficiency in electricity markets. The Commission also seeks to determine whether these policies could be changed to further promote efficiency in the electric utility industry." *Id.* at 35,637.

98. *Cogeneration; Small Power Production—Notice of Public Conference and Request for Comments*, IV F.E.R.C. STATS. & REGS. ¶ 35,011 (1987).

99. *See Regulations Governing Independent Power Producers*, IV F.E.R.C. STATS. & REGS. ¶ 32,456, at 32,108 (1988) (*IPPs NOPR*), *terminated*, 64 F.E.R.C. ¶ 61,364 (1994); *Regulations Governing Bidding Programs*, IV F.E.R.C. STATS. & REGS. ¶ 32,455 (1988), *terminated*, 64 F.E.R.C. ¶ 61,364 (1994); *Administrative Determination of Full Avoided Costs, Sales of Power to Qualifying Facilities, and Interconnection Facilities*, IV F.E.R.C. STATS. & REGS. ¶ 32,457 (1988); *Regulations Governing the Public Utility Regulatory Policies Act of 1978*, IV F.E.R.C. STATS. & REGS. ¶ 32,465 (1988), *terminated*, 64 F.E.R.C. ¶ 61,364 (1994).

100. For market-based rate cases which draw on several of the principles enunciated in the *IPPs NOPR*, see, e.g., *Commonwealth Atl. Ltd. Partnership*, 51 F.E.R.C. ¶ 61,368 (1990); *Terra Comfort Corp.*, 52 F.E.R.C. ¶ 61,241 (1990); *Doswell Ltd. Partnership*, 50 F.E.R.C. ¶ 61,251 (1990); *TECO Power Serv. Corp.*, 52 F.E.R.C. ¶ 61,191 (1990), *order on reh'g*, 53 F.E.R.C. ¶ 61,202 (1990).

101. *See Kansas City Power & Light Co.*, 67 F.E.R.C. ¶ 61,183, at 61,557 (1994) ("[A]fter examining generation dominance in many different cases over the years, we have yet to find an instance of generation dominance in long run bulk power markets.").

and transmission markets, and could not control other barriers to entry.[102] The Commission also began to institute policies recognizing the importance of transmission access.[103]

The introduction of independent sellers as a force in the marketplace created an impetus for the statutory reforms enacted in title VII of the EPAct. It now appears that the EPAct, and its effect on emerging competition in the electric power industry, may have created conditions equivalent to those experienced in the natural gas industry in the 1980s. In other words, although competitive forces began to emerge following enactment of PURPA, the EPAct's amendments to section 211 of the FPA and its creation of EWG status under PUHCA provided the Commission with more effective means to facilitate the competitive evolution of the electric utility industry. In this sense, the Commission's post-EPAct policies parallel its natural gas restructuring policies where the goal was to use open access transportation to maximize the consumer benefits of wellhead decontrol.

E. General Parallels in FERC's Electric and Natural Gas Policies

Five general parallels between the Commission's regulation of the natural gas and electric power industries can be identified, as discussed in the following sections.

1. Competitive Sectors

Certain sectors of the natural gas industry and the electric power industry have been demonstrated to be competitive or have the potential to be competitive.[104] In the natural gas industry, the market for natural gas at the wellhead, and for natural gas as a commodity in general, has been

102. *E.g., Commonwealth Atl. Ltd. Parternship*, 51 F.E.R.C. ¶ 61,368, at 62,244 (1990).

103. Prior to the EPAct, the Commission required open access transmission only in cases in which it believed it had clear authority to order such access, i.e., mergers and market-based rate cases for bulk power sales. The Commission acquired a greater appreciation for the importance of transmission access to an efficient bulk power market through its experience with these mergers and market-based rates cases. The seminal order in this area was issued in 1987, and involved the merger which created the public utility PacifiCorp (Utah Merger). In the Utah Merger, the Commission found that access to transmission was necessary to mitigate the market power associated with the merged company's increased control of transmission facilities. *See* Opinion No. 318, *Utah Power & Light Co., PacifiCorp, and PC/UP&L Merging Corp.*, 45 F.E.R.C. ¶ 61,095, at 61,283-95 (1988), *order on reh'g*, Opinion No. 318-A, 47 F.E.R.C. ¶ 61,209 (1989), *order on reh'g*, Opinion No. 318-B, 48 F.E.R.C. ¶ 61,035 (1989), *review granted in part sub nom.* Environmental Action, Inc. v. FERC, 939 F.2d 1057 (D.C. Cir. 1991), *order on remand*, 57 F.E.R.C. ¶ 61,363 (1991). The Commission also examined transmission market power in the context of permitting bulk power sellers to charge market-based rates. *See, e.g.*, Opinion No. 349, *Public Serv. Co. of Ind.*, 51 F.E.R.C. ¶ 61,367, at 62,198-99 (1990), *order on reh'g*, Opinion No. 349-A, 57 F.E.R.C. ¶ 61,260 (1990), *appeal dismissed*, 954 F.2d 736 (D.C. Cir. 1992). The Commission has found in these circumstances that a seller's lack of transmission market power ensures that the seller is unable to block potential competitors from reaching willing purchasers.

104. *See* Richard J. Pierce, Jr., *The State of Transition to Competitive Markets in Natural Gas and Electricity*, *in* FEDERAL ENERGY BAR ASSOCIATION 1994 SPRING CONFERENCE PAPER, 1994, at 7 (in both gas and electric, economies of scale and natural barriers to entry in the production process are sufficiently low that the sales market can become structurally competitive in most areas).

demonstrated to be competitive. In the electric power industry, the generation sector has been recognized to have the potential to be competitive.

2. Public Policy Decisions Supporting Competition in These Sectors

With respect to both industries, Congress has enacted statutes to promote competition in the sale of natural gas and electricity. These enactments represent a public policy decision that competition in the markets for these commodities is in the public interest.

3. Monopoly Functions in Transportation and Transmission

In both the natural gas and electric power industries, the transportation and transmission functions remain monopolies and need to be regulated in a manner that prevents natural gas pipeline companies and transmission-owning utilities from using their monopoly positions to frustrate the benefits that result from a competitive market for natural gas at the wellhead and an increasingly competitive market for electric generation. Consequently, access to natural gas transportation and electric transmission is critical to realizing the potential benefits of competitive markets in natural gas production and electric power generation. For both industries, the Commission's policy initiatives have been aimed at mitigating transportation market power by means of requiring open access transportation, i.e., the ability of third parties to use the transportation owners' system on a nondiscriminatory basis.

4. Regulation Distinguishing Competitive Sectors from Monopoly Functions

In regulating jurisdictional natural gas companies and public utilities, the FERC has distinguished between those functions exhibiting monopoly characteristics, principally the transportation and transmission functions, and other functions that exhibit competitive characteristics.[105] The monopoly functions continue to be regulated using a traditional cost-based model. The competitive functions are regulated in a light-handed manner, and

105. *See, e.g., Kansas City Power & Light Co.*, 67 F.E.R.C. ¶ 61,183, at 61,552 (1994). The FERC found that:

> [W]ith respect to requests for approval of sales at market based rates, for sales from new (unbuilt) generating capacity there is no need for the Commission to focus on whether the seller has market power in generation, as long as the seller has demonstrated that it and its affiliates: (1) do not have *transmission* market power in the relevant market or have adequately mitigated any such market power; and (2) do not own or control *other barriers to entry*.

Id. (emphasis added). *Compare* Order No. 636, III F.E.R.C. STATS. & REGS. ¶ 30,939, at 30,393 (1992) ("[T]he Commission must regulate the pipeline transportation system and pipeline sales for resale in a manner that ensures that pipeline control of the *transportation system*—a natural monopoly—does not give a competitive advantage to pipelines over other sellers in the sale of natural gas.") (emphasis added) *with id.* at 30,392 ("[D]eregulation of the *wellhead market* is on the horizon . . . and the Commission must, therefore, take further steps to ensure that the public can realize the full benefits of competition at the wellhead.") (emphasis added).

where it can be demonstrated that the regulated entity lacks market power, market-based rates have been authorized in lieu of cost-of-service rates.

When faced with the issue of market-based rates for services provided by the owners of transportation assets, the Commission has required that steps be taken to mitigate the ability of the pipeline or electric utility to use its control of transportation as a means to acquire a competitive advantage in the market for gas commodity sales and wholesale power sales. For example, based on its finding that there existed sufficient divertible gas supplies to result in competitive markets, and the unbundling and equal access mandates, the Commission in Order 636 authorized interstate pipelines to sell gas at market-based rates.[106] Similarly, the Commission has authorized individual electric utilities to make wholesale sales of electric power at market-based rates on the condition that the selling utility provide open access to its own transmission facilities.[107]

5. Transition Costs

For both the electric power and natural gas industries, the reformation of the regulatory framework to promote open access to transmission services and greater competition between suppliers of natural gas and electric power has created the potential for natural gas pipelines and electric utilities to incur costs in connection with the their service obligations under the superseded regulatory framework. In the natural gas industry, this resulted in take-or-pay liabilities and Order 636 transition costs.[108] In the electric industry, there is the potential for stranding the costs of generating facilities and other assets committed to fulfilling power sales obligations.[109] In both cases, the FERC has recognized that part of managing the regulatory transition to a more competitive environment is providing a mechanism for natural gas pipelines and electric utilities to recover legitimate costs incurred to honor sales obligations under the old regime.[110]

106. Order No. 636, III F.E.R.C. STATS. & REGS. ¶ 30,939, at 30,438-39.

107. *See, e.g., Entergy Serv., Inc.*, 58 F.E.R.C. ¶ 61,769, *reh'g denied*, 60 F.E.R.C. ¶ 61,168 (1992), *remanded*, Cajun Elec. Power Coop. v. FERC, 28 F.3d 173 (D.C. Cir. 1994).

108. *See infra* notes 133-63 and accompanying text.

109. Stranded costs may arise because of two interrelated factors: (1) utility assets and other costs may be made uneconomic as a result of competition in generation markets; and (2) competing sellers now have greater potential to reach new purchasers through enhanced access to electric transmission services. With the advent of increased transmission access, wholesale loads once served by vertically integrated utilities may now purchase cheaper power from low-cost sellers, thereby "stranding" assets formerly dedicated to serve them.

110. In Order 636, the Commission stated that it "authoriz[ed] 100 percent recovery of prudently incurred gas supply realignment costs incurred as a result of the full implementation of the rule because of the further significant industry-wide restructuring imposed by the Commission in this rule." III F.E.R.C. STATS. & REGS. ¶ 30,939, at 30,461. In the *Stranded Cost NOPR*, the Commission stated that it "believes it can best fulfill its regulatory responsibilities by addressing the issue of stranded costs during the initial stages of the transition to a more competitive wholesale generation market." IV F.E.R.C. STATS. & REGS. ¶ 32,507, at 32,866 (1994). The Commission also noted that stranded costs were a "transition problem" associated with "costs [which] may have been incurred by wholesale suppliers under an implicit regulatory 'bargain' . . . ." *Id.* at 32,866-67.

III. Specific Parallels in FERC's Electric and Natural Gas Policies

A. *Transportation Access*

1. Interstate Pipeline Transportation

In October 1985, in furtherance of the NGPA's purpose to permit a competitive wellhead market where market forces play a "more significant role in determining the supply, the demand, and the price of natural gas,"[111] the Commission issued Order 436. In Order 436, the Commission provided incentives for pipelines to accept blanket certificates to provide nondiscriminatory open access natural gas transportation. Participating pipelines also were allowed, for the first time, to discount their transportation charges to any shipper, subject to a regulated price cap. As a result, the role of pipelines changed from being primarily a merchant of natural gas in the distribution area to being both a merchant of natural gas and a transporter of natural gas owned by others on a nondiscriminatory basis.[112] By 1992, over ninety pipelines participated in the open access program, and pipeline transportation accounted for about eighty percent of total interstate pipeline throughput.[113]

The Commission's experience since the implementation of open access transportation in 1985, the passage of the Natural Gas Wellhead Decontrol Act of 1989, and industry comments on the Order 636 NOPR, led the Commission to conclude that, due to the disparity between how pipelines treated sales of their own merchant gas and how they treated third-party sales and transportation, competition between pipelines and other gas merchants was not occurring on an equal basis.[114] The Commission concluded that it was necessary to take action to improve the competitive structure of the pipeline industry to maximize the consumer benefits of the competitive wellhead market.[115] The Commission's "goal, simply put, [was] to recognize the current characteristics of the natural gas industry, which is now dominated by pipeline transportation not by traditional merchant service, and to create a regulatory framework that will accommodate the meeting of as many gas sellers and gas buyers as possible."[116]

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111. *Pipeline Service Obligations and Revisions to Regulations Governing Self-Implementing Transportation*, IV F.E.R.C. Stats. & Regs. ¶ 32,480, at 32,539 (1991) (*Order 636 NOPR*) (citing Transcontinental Gas Pipeline Corp. v. State Oil & Gas Bd. of Miss., 474 U.S. 409, 422 (1986)).

112. *See generally* John Wyeth Griggs, *Restructuring the Natural Gas Industry: Order No. 436 and Other Regulatory Initiatives*, 7 Energy L.J. 71 (1986).

113. National Petroleum Council, the Potential for Natural Gas in the United States, Volume IV: Transmission and Storage 27 (Washington, D.C., Dec. 1992).

114. IV F.E.R.C. Stats. & Regs. ¶ 32,480, at 32,540 (1991).

115. The Commission determined that open-access shippers were not receiving transportation services comparable in quality to the transportation services embedded within a pipeline's bundled, city gate, sales services. For example, on many pipelines, shippers had no right to contract storage on an open access basis. This limited their ability to aggregate supplies for future use and therefore provided an advantage to the pipeline as merchant where it had access to, and control of, storage. This impeded the implementation of the goal that a purchaser of gas supplies should make its purchasing decision without regard to the identity of the seller. IV F.E.R.C. Stats. & Regs. ¶ 32,480, at 32,540.

116. *Id.* at 32,537.

This examination of the competitive structure of the pipeline industry culminated in Order 636,[117] issued in April 1992. The Commission found that a "bundled, city-gate, firm sales service is operating, and will continue to operate, in a manner that causes competitive harm to all segments of the natural gas industry,"[118] and concluded that such service violates sections 4(b) and 5(a) of the NGA. Thus, the Commission determined in Order 636 that it was appropriate to restructure the regulations regarding the pipelines' remaining sales services by requiring that pipeline sales be separated, or unbundled, from transportation. For this reason, the Commission adopted regulations so that third-party gas sellers and purchasers can have nondiscriminatory access to transportation on a meaningful and timely basis, in the same manner as a pipeline's city gate, sales service.

Accordingly, in Order 636, pipeline companies were required to restructure their contractual relationships with existing firm sales customers, and to offer firm no-notice transportation service in place of firm city gate sales service. Pipeline companies were also required to offer storage, gathering, transportation, and sales on a separate unbundled basis. Order 636, which applies only to open access pipelines,[119] also authorized pipelines to sell natural gas at competitive market-based prices. After restructuring, shippers may continue to purchase gas from the pipeline, or from anyone else.

2. Post-EPAct Electricity Open Access

In the first order in which it proposed to compel access under section 211 of the FPA as amended by EPAct, the Commission ordered the transmitting utility to show why it should not be required to provide so-called network transmission service,[120] which would permit access to the system on terms similar to those under which the utility transmits its own power. In *Florida Municipal Power Agency v. Florida Power & Light Co. (FMPA v. FP&L)*,[121] the Commission recognized that it was in the public interest for the transmission customer to have flexible receipt and delivery points for transmission without multiple point-to-point charges. The Commission determined that the transmitting utility must provide network service at

117. *Pipeline Service Obligations and Revisions to Regulations Governing Self-Implementing Transportation; and Regulation of Natural Gas Pipelines After Partial Wellhead Decontrol*, III F.E.R.C. STATS. & REGS. ¶ 30,939, *order on reh'g*, Order No. 636-A, III F.E.R.C. STATS. & REGS. ¶ 30,950 (1992), *order on reh'g*, Order No. 636-B, 57 Fed. Reg. 57,911, *reh'g denied*, 62 F.E.R.C. ¶ 61,007 (1993), *appeal re-docketed sub nom. and pending*, Atlanta Gas Light Co. v. FERC, No. 94-1171 (D.C. Cir. 1994).

118. III F.E.R.C. STATS. & REGS. ¶ 30,939, at 30,405.

119. Order 636 applies to those pipelines that have accepted blanket certificates to perform nondiscriminatory open access transportation services under part 284 of the Commission's regulations. 18 C.F.R. pt. 284 (1993).

120. Network service allows a transmission customer some flexibility with respect to the receipt and delivery points of scheduled power and energy. So-called "point-to-point" transmission service is a lower quality service than network service. *See Florida Mun. Power Agency v. Florida Power & Light Co. (FMPA v. FP&L)*, 65 F.E.R.C. ¶ 61,125, at 61,599 n.3 (1993).

121. 65 F.E.R.C. ¶ 61,125, at 61,615 (1993), *reh'g dismissed*, 65 F.E.R.C. ¶ 61,372 (1993), *final order*, 67 F.E.R.C. ¶ 61,167 (1994).

rates which are nondiscriminatory compared to the transmission provided to its "other customers." Thus, the evolution in thinking regarding what is meant by nondiscriminatory and comparable access to transmission that took years to develop with respect to natural gas transportation was taken almost as a given in the first case under section 211 of the FPA, in which the Commission found it necessary to order transmission service.

After *FMPA v. FP&L*, the Commission's next step was to apply similar access principles to voluntary offers of transmission service filed under section 205 of the FPA. The Commission determined that under its sections 205 and 206 authority to ensure that rates, terms, and conditions of transmission service are not unduly discriminatory or preferential, transmission owners filing new open access tariffs must provide service that is the same or comparable to the service which the owner provides to itself. The comparability standard has been dubbed the "golden rule" for electric utilities.[122]

Historically, the standard for undue discrimination under the FPA entailed questions of whether factual differences justified differences in rates charged to, and terms and conditions applicable to, similarly situated customers.[123] The Commission first signaled a reconsideration of this standard for undue discrimination in a New England Power Pool (NEPOOL) case in April 1994. There, the Commission noted that it was re-examining the nature of its obligation under sections 205 and 206 of the FPA to ensure that transmission service is not unduly discriminatory.[124] In that case, certain NEPOOL members proposed to withdraw transmission access for a certain class of pool generation units. In an order setting the NEPOOL members' proposal for evidentiary hearing, the Commission found it necessary to change the focus of its traditional approach to questions of undue discrimination in order "to respond to changing conditions in the electric utility industry."[125] These changing conditions (such as the emergence of non-traditional suppliers and greater competition in bulk power markets) had caused it to be presented with a new and wide variety of undue discrimination claims. The Commission stated that, in many of these new cases, the focal point had shifted from claims of undue discrimination in rates and services which the utility offers different customers, to claims of undue discrimination in the rates and services which the utility offers when compared to its own use of the transmission system.[126]

In *American Electric Power Service Corp. (AEP)*,[127] the Commission's order built on the foundation laid in *New England Power Pool*, and enunciated its new standard of transmission comparability. Under this standard,

122. *FERC Orders Third Parties Get Same Use of Transmission Grid as Owners*, ELECTRIC UTIL. WK., May 16, 1994, at 1 (quoting FERC Chair Elizabeth Anne Moler).

123. *See* Cities of Newark v. FERC, 763 F.2d 533, 546 (3d Cir. 1985); Public Serv. Co. of Ind. v. FERC, 574 F.2d 1204 (1978); St. Michaels Util. Comm'n v. FPC, 377 F.2d 912, 915 (4th Cir. 1967).

124. *New England Power Pool*, 67 F.E.R.C. ¶ 61,042, *reh'g denied*, 67 F.E.R.C. ¶ 61,314 (1994).

125. 67 F.E.R.C. ¶ 61,042, at 61,132.

126. *Id.*

127. 67 F.E.R.C. ¶ 61,168 (1994).

transmission owners are required to provide service to third parties that is the same or comparable to the service which the transmission owner provides to itself. In *AEP*, the utility had filed what it termed an "open access" transmission tariff for third-party use of its transmission system. Although this service was voluntarily offered, the Commission's preliminary analysis determined that the proposed tariff was unduly discriminatory, because the tariff offered only point-to-point transmission service and not network transmission service.

The Commission next turned to setting guidelines for investigating what the comparability standard will mean in practice. The Commission in *AEP* opined that transmission owners may use their systems for a variety of purposes, such as serving native load customers, participating in the bulk power market, serving wholesale requirements customers, and other purposes.[128] Recognizing that such differences in transmission system usage may exist, and that certain uses of the system may create operational or reliability constraints, the Commission set for evidentiary hearing the following key questions:

(1) What are the different uses that AEP makes of its transmission system, particularly, what degree of flexibility does AEP accord itself in using the transmission system for different purposes?;

(2) Are there any impediments or consequences to providing third parties with the same transmission service that AEP provides to itself?; and

(3) What are the costs that AEP incurs in providing transmission to itself, and would the costs be any different to provide the same service to third parties?[129]

Implicit in these questions is the fundamental question of whether third-party transmission customers (which traditionally have been wholesale electricity purchasers and sellers) should receive transmission service that is the same or comparable to the transmission service "embedded" in the electricity service delivered to a public utility's retail native load customers. The record developed in *AEP*, and in the subsequent cases in which the Commission has applied the comparability standard,[130] should provide the Commission with a basis for determining how the comparability standard will be applied in practice.

3. Open Access Summary

Subsequent to the EPAct, the Commission's initial steps to promote access to electric transmission facilities have paralleled the steps taken in Orders 436 and 636 for the natural gas industry. In particular, as evidenced by *FMPA v. FP&L* and *AEP*, the Commission's criteria for nondiscriminatory access to transmission facilities—the comparability standard—appears

128. *Id.* at 61,490.

129. *Id.*

130. *E.g.*, *Florida Power & Light Co.*, 67 F.E.R.C. ¶ 61,326 (1994); *Commonwealth Edison Co.*, 67 F.E.R.C. ¶ 61,325 (1994); *Northern States Power Co.*, 67 F.E.R.C. ¶ 61,240 (1994); *Kansas City Power & Light Co.*, 67 F.E.R.C. ¶ 61,183 (1994).

to have been influenced by the Order 636 restructuring rule for interstate natural gas pipelines.

Other actions taken by the Commission to promote transmission access are likely to depend on its experience in implementing the comparability standard. Currently, the Commission has applied the comparability standard in a number of circumstances outside the context of a transmission tariff filing. Comparability has been required as a condition for market-based wholesale generation sales, as a condition for an affiliated power marketer receiving authority to make wholesale power sales at market-based rates, and as a condition to finding a merger of public utilities to be consistent with the public interest.[131] It remains to be seen how far the Commission will go in extending further its application of comparability.

The overriding question which remains is how comparability will work in practice. Whether the Commission will consider a requirement to complete unbundling of electric transmission and generation services, as it did for pipeline transportation and sales services in Order 636, may depend on the degree to which the Commission perceives that its goal of a competitive wholesale bulk power market has been achieved via comparability.

B. Take-or-Pay Costs, Transition Costs, and Stranded Costs

1. The Take-or-Pay Problem

One of the consequences of the changes set in motion by the NGPA[132] was a rapid shift in the balance of natural gas supply and natural gas demand. Following enactment of the NGPA, wellhead prices increased, and this encouraged natural gas production. At the same time, higher natural gas prices encouraged gas consumers to conserve, or else switch to competing fuels, and the result was a decline in natural gas demand. By 1982, there was a significant surplus of natural gas deliverability in the United States. One consequence of the excess deliverability was divergence between the price of gas sold on the short-term spot market and the price of gas sold on the long-term contract market. Gas that interstate pipelines had committed to buy from producers under long-term contrac-

131. *Kansas City Power & Light Co.*, 67 F.E.R.C. ¶ 61,183 (1994) (applying comparability standard to request for market based rates); *Heartland Energy Serv., Inc.*, 68 F.E.R.C. ¶ 61,223 (1994) (applying comparability standard to affiliated power marketer's request for market based rates (stating that comparable transmission tariff must be filed for transmission owner to mitigate transmission market power); *El Paso Elec. Co.*, 68 F.E.R.C. ¶ 61,182 (1994) (requiring all public utilities proposing mergers to provide comparable transmission services).

132. The NGPA was Congress' response to the interstate natural gas shortages of the 1970s that were caused by the existence under the NGA of a dual market for natural gas that distinguished between interstate and intrastate sales of natural gas. The NGPA integrated the dual market by eliminating the distinction between the interstate and intrastate markets, by setting new statutory ceiling prices for the wholesale gas market that were intended to provide incentives for the development of new gas supplies, by establishing a scheme for the gradual removal of federal wellhead price controls for "new" gas (generally, gas discovered subsequent to enactment of the NGPA), and by promoting the more efficient transportation of natural gas. *Regulation of Natural Gas Pipelines After Partial Wellhead Decontrol*, [1982-1987 Proposed Regs.] F.E.R.C. STATS. & REGS. ¶ 32,408, at 33,105 (1985).

tual arrangements was priced in excess of gas available on the spot market. As a result of this price divergence, natural gas consumers, when possible, resisted purchasing system supply gas from interstate pipelines and sought out opportunities to acquire competitively priced spot market gas.[133]

These developments created significant take-or-pay exposure for interstate pipelines.[134] The combination of high contract prices relative to the competitive spot market and take-or-pay clauses in producer contracts created problems for pipelines. As pipelines reduced their takes of high-priced gas, prepayment liabilities under the take-or-pay clauses mounted.[135]

2. Pipeline Recovery of Take-or-Pay Costs: Order 436 Remand and Order 500

In Orders 380[136] and 436,[137] the FERC upset the balance between the pipelines' upstream obligations to purchase gas from producers and the obligations of the pipelines' downstream resale customers to purchase natural gas from the pipelines.[138] These actions greatly exacerbated the take-or-pay problem. As part of its remand of Order 436 to the Commission, the U.S. Court of Appeals for the D.C. Circuit directed that the FERC "more convincingly address the magnitude of the [take-or-pay] problem

133. *Id. See also* Pierce, *supra* note 89, at 16-24 (describing natural gas market imperfections and regulatory responses).

134. Pipeline contracts with producers often included take-or-pay clauses which required the pipelines either to purchase a specified percentage of the gas which the producer had committed to the contract, or else prepay for that percentage of the committed production anyway. *See* Associated Gas Distribs. v. FERC, 824 F.2d 981, 1021 (D.C. Cir. 1987) (description of producer-pipeline contracts).

135. Notice of Proposed Rulemaking, *Regulation of Natural Gas Pipelines After Partial Wellhead Decontrol*, [1982-1987 Proposed Regs.] F.E.R.C. STATS. & REGS. ¶ 32,408, at 33,105-06 (1985). Take-or-pay liability also was a principle cause of pipeline reluctance to transport natural gas which the customer had purchased from third-party suppliers, because such third-party gas likely would displace pipeline sales and add to the pipeline's take-or-pay problem. *Id.*

136. Order No. 380, *Elimination of Variable Costs from Certain Natural Gas Pipeline Minimum Commodity Bill Provisions*, [1982-1985 Regs. Preambles] F.E.R.C. STATS. & REGS. ¶ 30,571 (1984), *aff'd in part and remanded in part*, Wisconsin Gas Co. v. FERC, 770 F.2d 1144 (D.C. Cir. 1985); Order No. 380-A, [1982-1985 Regs. Preambles] F.E.R.C. STATS. & REGS. ¶ 30,584 (1984); Order No. 380-B, 29 F.E.R.C. ¶ 61,076 (1984); Order No. 380-C, [1982-1985 Regs. Preambles] F.E.R.C. STATS. & REGS. ¶ 30,607 (1984); Order No. 380-D, 29 F.E.R.C. ¶ 61,332 (1984); Order No. 380-E, 35 F.E.R.C. ¶ 61,384 (1986); Order No. 380-F, 40 F.E.R.C. ¶ 61,190 (1987).

137. Order No. 436, *Regulation of Natural Gas Pipelines After Partial Wellhead Decontrol*, [1982-1985 Regs. Preambles] F.E.R.C. STATS. & REGS. ¶ 30,665 (1985), *vacated and remanded*, Associated Gas Distribs. v. FERC, 824 F.2d 981 (D.C. Cir. 1987), *cert. denied*, 484 U.S. 1084 (1991).

138. In Order 380, the FERC precluded pipelines from collecting variable costs through minimum bill provisions and also precluded minimum take provisions. Order No. 380, [1982-1985 Regs. Preambles] F.E.R.C. STATS. & REGS. ¶ 30,571, at 30,958-59 (1984); *see also* Order No. 380-A, [1982-1985 Regs. Preambles] F.E.R.C. STATS. & REGS. ¶ 30,584, at 31,033 (1984). In Order 436, the FERC authorized pipeline customers to reduce the level of their contract demand (CD) for pipeline sales service or else convert their CD to an equivalent entitlement to transportation service. Order No. 436, [1982-1985 Regs. Preambles] F.E.R.C. STATS. & REGS. ¶ 30,665, at 31,496, 31,518-26 (1985). The FERC did not act substantively in either order to address pipeline take-or-pay obligations.

and the adverse consequences likely to result from the nondiscriminatory access and CD adjustment conditions [of Order 436]."[139]

On remand, in Order 500,[140] the FERC took three affirmative steps in response to the court's direction that it reconsider its analysis of the take-or-pay issue. First, in order to mitigate any increase in take-or-pay liability as a consequence of open access transportation, Order 500 required that a producer seeking open access transportation agree to credit transported gas against the transporting pipeline's take-or-pay liability to the producer.[141] Second, in order to provide a mechanism for pipelines to recover take-or-pay buyout and buydown costs from their customers, Order 500 offered, as an alternative to the recovery of such costs in a pipeline's sales commodity charge, that an open access pipeline could choose to recover between twenty-five and fifty percent of its buyout and buydown costs through a fixed surcharge on sales and transportation customers, if the pipeline agreed to absorb an equal percentage of such costs.[142] Finally, in

139. Associated Gas Distribs. v. FERC, 824 F.2d 981, 1044 (D.C. Cir. 1987). In the NOPR that preceded Order 436, the FERC had proposed steps to deal with take-or-pay, but based on what the court considered "questionable factual and legal premises" declined to take any affirmative action in the final rule. *Id.* at 1030.

140. Order No. 500, *Regulation of Natural Gas Pipelines After Partial Wellhead Decontrol*, [1986-1990 Regs. Preambles] F.E.R.C. STATS. & REGS. ¶ 30,761 (1987).

141. *Id.* at 30,779-84. In American Gas Ass'n v. FERC, 912 F.2d 1496, 1509-13 (D.C. Cir. 1990) (*AGA II*), the D.C. Court of Appeals affirmed in virtually all respects the Commission's decisions creating a "crediting" mechanism. This mechanism allowed pipelines that carry gas under open access (which is likely to displace their own gas and thus aggravate their take-or-pay liabilities) to obtain credit in an equal amount against their take-or-pay obligations under contracts with the gas's producer. One feature of the mechanism, a "double crediting" argument, was remanded to the Commission.

142. Also, in order to avoid protracted administrative litigation over whether such costs were prudently incurred, Order 500 adopted a rebuttable presumption of prudence for pipelines that agreed to absorb a portion of their take-or-pay costs. [1986-1990 Regs. Preambles] F.E.R.C. STATS. & REGS. ¶ 30,761, at 30,784-92. On remand from Associated Gas Distribs. v. FERC, 824 F.2d 981 (D.C. Cir. 1987) (*AGD I*), the Commission promulgated a "purchase deficiency" allocation mechanism under which the pipeline operators' costs with respect to take-or-pay contracts with producers was allocated among customers' levels of purchases in a "deficiency period" and those in a "base period." This aspect of the cost recovery mechanism was deemed to violate the filed rate doctrine in Associated Gas Distribs. v. FERC, 893 F.2d 349 (D.C. Cir. 1989) (*AGD II*). In American Gas Ass'n v. FERC, 888 F.2d 136 (D.C. Cir. 1989) (*AGA I*), the D.C. Court of Appeals held that since the Commission presented the cost recovery mechanism as a "policy statement," and not a definitive rule, the challenges to the substantive aspects of the cost recovery mechanism (equitable sharing method) were not ripe for review. 888 F.2d at 151-52. In American Gas Ass'n v. FERC, 912 F.2d 1496 (D.C. Cir. 1990) (*AGA II*), several petitioners claimed that the take-or-pay passthrough mechanism adopted in the Order 500 series unlawfully denied pipelines a reasonable opportunity to recover prudently incurred costs. The *AGA II* court held that since it "invalidated that mechanism from a rather different perspective in [*AGD II* because of the illegality of the purchase deficiency allocation methodology], on the ground that it violated the filed rate doctrine, we have no pass-through mechanism before us and such claims are unripe." 912 F.2d at 1519. Despite the fact that the court found the purchase deficiency aspect of the passthrough mechanism illegal (in *AGD II*), the court in *AGA II* declined to grant petitioners' demand that it order an end to the Commission's use of the mechanism prior to final court review of the mechanism. In November 1990, in response to *AGD II's* invalidation of the purchase deficiency allocation methodology, the Commission issued Order 528. Order 528 reaffirmed the absorption provisions of Order 500's passthrough mechanism. *Mechanisms for Passthrough of Pipeline Take-or-Pay Buyout and Buydown Costs*, 53 F.E.R.C. ¶ 61,163, at 61,596 (1990). In Order 528-A, 54 F.E.R.C. ¶ 61,095 (1991), the Commission held that its "equitable sharing policy continues to be just that, a

order to avoid the recurrence of take-or-pay problems in the future, Order 500 adopted a policy statement setting forth principles under which pipelines could collect gas inventory charges to recover the costs of maintaining supply for their customers.[143]

Thus, in Order 500 the FERC began to focus more intently on addressing up-front the incurrence of costs occasioned by its regulatory policies and ultimate responsibility for those costs. For example, even though superseded by Order 636, the gas inventory charge mechanism attempted to provide pipelines with compensation for maintaining system supplies commensurate with their service obligations.

3. Order 636 Transition Costs

In Order 636, the Commission identified four types of transition costs that pipelines may incur as a result of implementing the requirements of its restructuring rule. These costs include: (1) unrecovered gas costs (or credits) remaining in the purchased gas adjustment (PGA) Account No. 191; (2) costs resulting from gas supply contract realignment (GSR); (3) "stranded costs," the costs of a pipeline's assets used to provide bundled sales service, such as gas in storage, and capacity on upstream pipelines, that would no longer be needed to serve customers under unbundled services; and (4) "new facility costs," costs associated with physically implementing the rule (e.g., meters, valves, and communications equipment). As a general rule, pipelines are allowed to recover 100% of eligible and prudently incurred transition costs.

Order 636 also specified the recovery mechanism for each type of cost. Account No. 191 costs may be recovered from former sales customers. GSR costs may be recovered both from part 284[144] firm transportation cus-

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statement of policy not a definitive rule, and the Commission will continue to address and decide all issues concerning the actual recovery mechanisms to be used by individual pipelines in individual cases." 54 F.E.R.C. ¶ 61,095, at 61,294 (1991).

143. Interim Rule and Statement of Policy, *Regulation of Natural Gas Pipelines After Partial Wellhead Decontrol*, [1986-1990 Regs. Preambles] F.E.R.C. STATS. & REGS. ¶ 30,761, 30,792-94 (1987). The Commission issued GICs to several interstate pipeline companies. *See, e.g., Transwestern Pipeline Co.*, 43 F.E.R.C. ¶ 61,240 (1988). Although a large number of cases were filed challenging FERC implementation of the gas inventory charge, the *Transwestern* case was jointly selected by the parties as the most suitable one for its review in the court of appeals; the remainder held in abeyance. Due to the particular factual circumstances of the case, however, most of the key issues in the case had been rendered moot. The Court noted that, "the upshot is that this case has failed as the selected vehicle for review of the Commission's actions on gas inventory charges." Transwestern Pipeline Co. v. FERC, 897 F.2d 570 (D.C. Cir. 1990). *See also Transcontinental Gas Pipe Line Corp.*, 55 F.E.R.C. ¶ 61,446 (1991), *reh'g denied*, 57 F.E.R.C. ¶ 61,345 (1991); Elizabethtown Gas Co. v. FERC, 10 F.3d 866 (D.C. Cir. 1993).

144. Part 284 refers to the Commission's open access regulations. 18 C.F.R. pt. 284 (1993). In Order 636, the Commission authorized pipelines to recover prudently incurred GSR costs through a surcharge on all part 284 firm transportation customers. The surcharge, however, will not be applicable to NGA section 7(c) certificated transportation shippers. The Commission held that section 7(c) shippers should not be responsible for Order 636 transition costs since such customers are not directly affected by the order, since their service does not give rise to transition costs associated with Order 636 and because the section 7(c) shippers will not benefit from the upgraded open access services which will result from implementation of the final rule. Order No. 636, III F.E.R.C. STATS. & REGS. ¶ 30,939, at

tomers (responsible for ninety percent of the costs) and from interruptible transportation customers (responsible for ten percent of the costs).[145] Stranded costs and new facility costs would be treated like all other prudently incurred costs, and a pipeline would be required to file to recover such costs in a general NGA section 4 rate filing.

Procedurally, pipelines were required to propose tariff language as part of their individual restructuring compliance filings under which they would recover Account No. 191, GSR, and stranded costs. In other words, the allocation methodology would be determined before the recovery of any costs actually was sought.[146] Recovery of costs actually incurred would be addressed in future pipeline rate filings, generally limited rate filings.[147]

With regard to post-July 31, 1991, unrecovered Account No. 191 costs, the Commission authorized pipelines to direct bill the Account No. 191 balance to their former bundled, firm sales customers. Order 636 suggests that such costs be allocated to a pipeline's customers based on their recent purchases, or based on their contract demand.[148] If the suggested allocation methodologies are "inequitable" in the context of a given pipeline system, the pipeline or other parties could propose other allocation methods.[149] Pre-July 31, 1991, balances could not be recovered from former customers through a direct billing mechanism, but may be recoverable under appropriate circumstances.[150]

Pipelines may file to recover GSR costs through a limited NGA section 4 rate filing. To be eligible for recovery under the Order 636 transition

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30,459 (1992); Order No. 636-A, III F.E.R.C. STATS. & REGS. ¶ 30,950, at 30,650 (1992). *See also Williston Basin Interstate Pipeline Co.*, 63 F.E.R.C. ¶ 61,171 (1993). An analogous situation, in which the Commission in response to a court remand in KN Energy, Inc. v. FERC, 968 F.2d 1295 (D.C. Cir. 1992), held that there is an insufficient nexus between KN, a section 7(c) shipper, and Williston Basin Interstate Pipeline Company's take-or-pay settlement costs to justify imposition of an Order 500 volumetric surcharge on KN.

145. In Order 636-A the Commission, wishing to spread the costs of the Order 636 transition to the broadest possible customer base, required that ten percent of GSR costs be recovered from interruptible services. III F.E.R.C. STATS. & REGS. ¶ 30,950, at 30,646-47.

146. In actual practice, the process has not worked in so clean and surgical a manner. Many pipelines have had to revise or clarify their generic allocation standards when first put to the test in practice. In some cases, pipelines have arrived at settlements with their customers which have achieved mutually agreeable approaches to these troublesome problems. Currently, most of the pipeline filings seeking to recover transition costs are still working their way through the administrative process; meanwhile, pipelines are recovering their transition costs, subject to refund.

147. Pipelines seek to change their rates or revise their tariffs pursuant to section 4 of the Natural Gas Act, usually upon 30 days prior notice. In a general section four rate filing, the pipeline's entire cost-of-service and all of its rates may be in contention, subject to prospective reduction, and to the extent the pipeline proposes a change, subject to refund. However, in a limited section four filing, only the specific rates or surcharges which the pipeline proposes to change are in contention.

148. III F.E.R.C. STATS. & REGS. ¶ 30,939, at 30,458.

149. *Id.* at 30,458 n.283.

150. Since customers were not put on notice of such an occurrence, such a billing method would raise filed rate and retroactive rate making concerns. *See* Transwestern Pipeline Co. v. FERC, 897 F.2d 570 (D.C. Cir. 1990). The Commission noted, however, in Order 636-B that it would consider "creative" proposals by pipelines seeking to recover pre-July 31, 1991, PGA costs. 61 F.E.R.C. ¶ 61,272, at 62,036 (1992). In practice the Commission has addressed at least one such proposal. *See Panhandle Eastern Pipe Line Co.*, 67 F.E.R.C. ¶ 61,404 (1994).

cost mechanism, GSR costs must be eligible and prudent. Eligibility is determined by the simple, but contentious, test of whether the costs are a result of sales customers' decisions during the restructuring process.[151] Order 636-B clarified that, while the Commission will not review the prudence of the pipeline's costs unless another participant challenges them, the pipeline's GSR costs will not be presumed prudent.[152] Pipelines have filed to recover GSR costs attributable to buying out or buying down existing contracts and so-called "pricing differential costs" (PDCs).[153]

4. Stranded Electric Utility Costs

In the electric power industry, transition costs arise because of two interrelated factors: (1) utility assets and other costs may be made uneconomic as a result of competition in generation markets; and (2) competing sellers now have greater potential to reach new purchasers through enhanced access to electric transmission services. With the advent of increased transmission access (provided either voluntarily or compelled under section 211), wholesale loads once served by vertically integrated utilities may now purchase cheaper power from low-cost sellers,[154] thereby "stranding" assets formerly dedicated to serve them.[155] Often, traditional electric utilities have served, and are serving, these loads with high-cost nuclear generation.[156] Saddled with such high-cost generation, traditional electric utilities may be unable to compete effectively for their historic customers.

Stranded costs can be viewed as the electric industry's equivalent to the natural gas industry's take-or-pay costs and Order 636 transition costs, because both are a consequence of the transition to a more competitive industry structure. Still, there are some basic differences between natural gas take-or-pay costs and GSR costs and electric utility stranded costs.

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151. *See, e.g., Texas Eastern Transmission Corp.*, 65 F.E.R.C. ¶ 61,363, at 62,998-99 (1993).

152. Order No. 636-B, 61 F.E.R.C. ¶ 61,272, at 62,039 (1992). This is in contrast to the take-or-pay cases under Orders 500 and 528, in which the Commission used a presumption of prudence because the pipeline was absorbing some of the costs.

153. PDCs are the costs to the pipeline of continuing to perform under currently unmarketable purchase contracts while negotiating final resolution of the contract between the pipeline and producer. The Commission first accepted PDCs as valid Order 636 transition costs in *Texas Eastern Transmission Corp.*, 62 F.E.R.C. ¶ 61,015, at 61,124-26 (1993).

154. In the mid to late 1980s, technological advances and the increasing availability of plentiful, low-cost natural gas supplies made gas-fired generation the cheapest source of new generation. Further, the ability to use project financing provided non-utility generators the opportunity to enter the generation market. These factors, among other things, enabled new market entrants to produce power at rates below the embedded costs of traditional utilities.

155. In addition, with increased transmission access, municipal utilities and joint action agencies have begun to request more frequently that they be able to integrate their loads and resources. In this way, they too can act as traditional utilities have acted, integrating loads and resources (either units or purchased power) on a real time basis. *See, e.g., Florida Mun. Power Agency v. Florida Power & Light Co.*, 65 F.E.R.C. ¶ 61,125, at 61,613 (1993).

156. *See, e.g.*, CHANGING STRUCTURE, *supra* note 6, at 12, 33.

5. Differences Between Take-or-Pay Costs and Electric Stranded Costs

First, an electric utility's stranded costs potentially may be at wholesale or at retail. Wholesale stranded costs may occur when a wholesale purchaser switches power suppliers. Retail stranded costs may occur when a state allows retail consumers direct access to competing power suppliers (so-called retail wheeling), or when traditional retail customers join forces to "municipalize" and thereby become wholesale power purchasers.[157] In either case, there is the potential for stranding assets previously dedicated to serve the departed customers at retail. In fact, most stranded cost projections indicate that the bulk of the potential stranded costs are at retail.[158]

Second, the determination of whether stranded costs will be recoverable at both the wholesale and retail level involves a backward-looking review of investment decisions and management practices. In contrast, the costs that pipelines sought to pass through as part of their FERC-approved rates were sums incurred in the settlement or adjudication of contractual obligations to producers. While pipeline customers could have challenged the prudence of such settlements, this generally did not occur, probably in large part due to the equitable sharing mechanism adopted by the FERC in Orders 500 and 528.

Third, the magnitude of stranded costs on the electric side may result from both federal and state laws and policies affecting energy supply options. For instance, a typical electric utility's stranded costs may include legally-required purchases of above-market, avoided cost QF power. The requirement to purchase QF power stems from PURPA's policy thrust to promote alternative energy sources. In some cases, QF power represents a significant share of a utility's supply portfolio. Where traditional utilities must purchase from such QFs, and a customer takes system power[159] from that utility, the level of stranded costs may be higher due to such mandatory purchases. Furthermore, many electric utilities may have high stranded cost liability as a result of investments in nuclear plants. Similarly, the costs of producing coal-fired electricity has increased due to Clean Air Act compliance.[160] In sum, unlike the natural gas industry's take-or-pay problem, which stemmed in part from the industry's reaction to removal of governmental oversight of pipeline's gas purchases, the electric industry's stranded cost problem can be traced, in part, to public policies which increased government involvement in electric utilities' investment deci-

157. Retail stranded costs may also occur when retail customers formerly served by a host utility decide to self-generate all, or part, of their electricity requirements.

158. *See Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, IV F.E.R.C. STATS. & REGS. ¶ 32,507, at 32,866 n.30 (1994).

159. Some wholesale customers and the vast majority of retail customers take "system power"—that is, their electricity deliveries from the host utility are not from a designated unit, but from all generating units on the utility's system.

160. NEW REGULATORY ORDER, *supra* note 28, at 220 (estimating annual costs of a ten million ton SO2 reduction at between $2 and $4 billion, and discussing possible rate shocks as a result).

sions. Those public policies were intended in part to create incentives and disincentives for particular fuel use and plant investment decisions.

6. Recovery of Electric Stranded Costs

a. Indirect Statutory Guidance

Title VII of EPAct contains no express statement on stranded costs. However, several provisions of the FPA, and the EPAct amendments in particular, relate to costs which may be stranded as a result of changing supply relationships. First, even prior to EPAct, section 211 of the FPA prohibited the Commission from granting a request for transmission services if such transmission would displace power that the requester otherwise was required to purchase.[161] In essence, this section of the law prohibits a transmission requester from obtaining a wheeling order as a "back-door" means to undo its existing power supply contract. Second, section 212(a) of the FPA, which governs the rates, terms, and conditions for transmission service ordered under section 211, states that such rates must permit the transmitting utility to recover all "legitimate, verifiable, and economic costs."[162] It can be argued that stranded costs incurred as a consequence of transmission access are such "legitimate, verifiable, and economic costs."[163] Third, section 212(h) prohibits the FERC from ordering retail wheeling.[164] If Congress would have permitted such wheeling, arguably the vast majority of public utility assets (which are dedicated to retail service), could have been subject to "stranding," immediately.[165]

b. *Cajun v. FERC*

The decision of the U.S. Court of Appeals for the D.C. Circuit in *Cajun Electric Power Cooperative, Inc. v. FERC*,[166] has created uncertainty regarding the Commission's options for addressing the stranded investment issue. In particular, the court's analysis of claims that the transmission tariff in question was anticompetitive due to its stranded cost recovery pro-

161. 16 U.S.C. § 824j(c)(2) (1988).

162. 16 U.S.C.A. § 824k(a) (1988 & West Supp. 1994).

163. *Cf. City of Bedford*, 68 F.E.R.C. ¶ 61,003, at 61,018 (1994) (transmitting utility arguing for recovery of stranded costs arguably resulting from section 211 transmission order).

164. 16 U.S.C.A § 824k(h) (West Supp. 1994).

165. In a floor statement supporting the EPAct conference report, one Representative stated, for instance, that the retail wheeling ban was intended to ensure that:

> [L]arge customers around whom major parts of utility networks were planned would not be allowed to pick up, leave the system, [and] leave the utility's remaining customers to bear a much larger share of the system's costs .... [The ban] ensures that large electricity customers are not cherry-picked from a utility's service area by an independent power producer, leaving the utility and its mostly residential and commercial captive customers with higher prices for their electricity.

138 CONG. REC. E3226-27 (1992) (statement of Rep. Lehman).

166. 28 F.3d 173 (D.C. Cir. 1994).

vision[167] highlights the tension between the Commission's goals of promoting transmission access, and FERC's interest (expressed in that case) in providing a mechanism for the recovery of legitimate stranded costs.

In *Cajun*, the court heard challenges to FERC's approval of market-based wholesale power rates and an open access transmission tariff proposed by the company in *Entergy Services, Inc.*[168] The court found that the FERC failed to address adequately disputed issues of material fact regarding the impact of the open access transmission tariff on Entergy's market power. The court concluded that the FERC had been arbitrary and capricious in declining to hold an evidentiary hearing on these disputed issues of material fact and remanded the *Entergy* order to the FERC for further proceedings.

In the order reviewed by the United States Court of Appeals for the D.C. Circuit, consistent with Commission policy, the FERC found that Entergy's open access transmission tariff was a prerequisite to approval of Entergy's proposed market-based wholesale power rates, and that the open access tariff proposed by Entergy mitigated the company's transmission market power.[169] Before the Commission, and later on appeal, one of the company's wholesale power customers (Cajun Electric Power Cooperative), among others, questioned whether the open access transmission tariff sufficiently mitigated Entergy's transmission market power. Their central argument was that the provision of the transmission tariff that authorized Entergy to recover generation-related stranded costs from transmission customers was anticompetitive. Upon reviewing FERC's approval of the provision, which would have permitted Entergy to apply for recovery of wholesale stranded generation costs on a case-by-case basis, the court noted that "[a]s a theoretical matter, the petitioners would appear to be correct that the stranded investment provision is anticompetitive."[170] The

167. The court stated: "When a departing wholesale or retail customer "leaves" a traditional utility's system, such a customer must ordinarily take some transmission or distribution service from its former supplier. This is because the vast majority of such customers do not have alternative transmission suppliers and cannot themselves build sufficient transmission or distribution to bypass their former electricity supplier's transmission system. Accordingly, transmission service to the former wholesale or retail customer may be a convenient "hook" to charge departing customers stranded generation costs, even though such costs are not traditionally allocable to transmission plant and, therefore, may not traditionally be recovered through transmission rates. Transmission rates generally recover only the fixed and variable costs of transmission plant." *Id.* at 177.

In this particular instance, stranded costs are said to be "put on the wires." Of course, as stranded costs are put on the wires, the costs of transmission service go up. Thus, purchases from, or sales to, distant utilities by former captive customers become less economically attractive and, in theory, increased trading (and competition) may thus be thwarted. It was this scenario which the *Cajun* court found unacceptable because, in its view, the purpose of the stranded cost provision was to "cabin" Entergy's customers. *Id.* at 177-78.

168. 58 F.E.R.C. ¶ 61,234, *reh'g denied*, 60 F.E.R.C. ¶ 61,168 (1992) (*Entergy*), *remanded*, Cajun Elec. Power Coop. v. FERC, 28 F.3d 173 (D.C. Cir. 1994).

169. 58 F.E.R.C. ¶ 61,234, at 61,754.

170. *Cajun*, 28 F.3d at 178.

court found that the petitioners had "adequately flagged" this as a disputed issue of material fact.[171]

The court found FERC's rationale for approving the stranded cost provision of the open access transmission tariff to be unpersuasive. In the court's words, FERC's first argument was "that the issue of whether stranded investment cost will reduce access to transmission is not susceptible to final resolution by a hearing at this point, because legitimate and verifiable stranded investment can only properly be determined on a case-by-case basis and appropriate procedures have been made available for doing just that."[172] The court found this unpersuasive in light of the fact that, in order to approve Entergy's market-based wholesale power rates, the FERC needed to find that Entergy's market power had been mitigated upon implementation of the tariff.[173] Therefore, procedures to determine whether stranded investment costs would be recoverable at a later date did not answer the question of whether the stranded cost provision in the tariff had a present anticompetitive effect. In this regard, the court observed that the *effect* of stranded cost provisions could make exit from Entergy's system impossible or less desirable and that "the procedures themselves hang over any prospective deal like the sword of Damocles."[174]

FERC's second argument in support of the stranded investment provision in the open access transmission tariff was that it was "necessary to lure Entergy into competition."[175] The court found this unpersuasive for two reasons. First, this purpose is irrelevant "if the tariffs do not mitigate Entergy's market power sufficiently that the resulting market-based prices will be 'just and reasonable' under section 205 of the Federal Power Act."[176] Second, the court noted that "this case may take on a different cast in light of recent amendments to the Federal Power Act. Specifically, the Commission can now *order* transmission services pursuant to the Energy Policy Act of 1992."[177]

Apart from the remand of *Entergy* and the fact that the court found FERC's rationale in support of the stranded cost provision of the transmission tariff to be unpersuasive, certain aspects of the *Cajun* decision are significant. The first is the court's analysis of the provisions of Entergy's open access transmission tariff in terms of principles of antitrust law. The court referred to Entergy's market power in transmission services as a "bottleneck monopoly" and concluded that "a classic tying problem exists" with respect to Entergy's ability to "use its monopoly over transmission services

171. *Id.*
172. *Id.* at 178-79.
173. *Id.* at 178.
174. *Id.* at 179.
175. *Cajun*, 28 F.3d at 180.
176. *Id.*
177. *Id.* (emphasis in original).

to eliminate competition in the market for generation services."[178] The court observed that the stranded cost provision of the transmission tariff was just as much a tying arrangement as if it had been a requirement to purchase generation services.[179] What might this analysis mean for other proposals to recover stranded costs by means of a transmission surcharge? Would other proposals to put stranded costs "on the wires" be sufficiently distinguishable from the Entergy tariff provision to withstand judicial scrutiny? Looking beyond the stranded cost context, would the court's analysis of transmission market power support steps by the FERC to require electric utilities to unbundle all generation from transmission?

Second, the court in *Cajun* cited with approval the petitioners' argument that "the concept of stranded investment has no meaning in a competitive market, since a surplus of productive capacity can always be readily eliminated simply by lowering the price."[180] The court stated further that "[i]n the instant case, Entergy always has the option to reemploy any temporarily unemployed productive resources by making off-system sales at market-based prices. Hence, *there really is no such thing as stranded investment, only a failure to compete.*"[181]

In making this statement, the court in *Cajun* appeared to be acting on the basis of an unstated assumption regarding the nature of fixed asset investments in the electric utility industry, and in the current state of competition in the industry. In particular, that court's statement that "there really is no such thing as stranded investment" would make sense if one assumed that an electric utility knew at the time of its investment that the generation market was in fact competitive and that competing generators would have transmission access. This assumption, however, ignores the fact that many of the utility investment decisions that are likely to be at issue in stranded cost proceedings were made in an environment that did not include a competitive generation market and transmission access, and were made based on the assumption that utilities were obligated to serve their customers (both at wholesale, and at retail because of retail franchise service obligations). That the court apparently did not place the stranded cost issue in this context begs the question of whether the court would have made its statement in *Cajun* had it been presented with the rationale for stranded cost recovery now articulated in FERC's Stranded Cost NOPR.

178. *Id.* at 176.

179. The court stated:

> [I]f a company can charge a former customer for the fixed cost of its product whether or not the customer wants that product, and can tie this cost to the delivery of a bottleneck monopoly product that the customer must purchase, the products are as effectively tied as they would be in a traditional tying arrangement.

Id. at 178.

180. *Cajun*, 28 F.3d at 179.

181. *Id.* (emphasis added).

c. Stranded Cost NOPR

The Commission issued its Stranded Cost NOPR (NOPR)[182] on June 29, 1994, two weeks prior to the D.C. Circuit's *Cajun* decision. The NOPR addresses both wholesale and retail stranded cost recovery, and proposes for comment procedures for treatment of stranded costs in specific situations.[183] While it proposes specific regulations, the NOPR also seeks comment on a wide range of issues. For example, it asks for comment on whether stranded costs should be recoverable under any circumstances.

At this point, the exact implications of the *Cajun* decision for the NOPR are unclear. The FERC has denied subsequent motions by the American Public Power Association (APPA) to lodge the court's opinion and for withdrawal of the NOPR.[184] In denying APPA's motions, the FERC stated:

> The court did not even mention the Commission's stranded cost NOPR, much less determine that the Commission was prohibited from generically considering the issue of recovery of stranded costs in a rulemaking proceeding. While we deny APPA's motions, we nevertheless clarify that entities may address the *Cajun* decision in their comments in this proceeding.[185]

i. Wholesale Stranded Costs

With respect to wholesale stranded costs, the NOPR proposes a contract-based approach. The NOPR states that contracts entered into after the issuance of the proposed rule must have notice or exit fee provisions. If such future contracts do not contain such provisions, the Commission will not permit utilities to seek recovery of stranded costs through transmission rates. For existing wholesale contracts, the NOPR proposes a "three year transition period during which utilities must make a good faith effort to negotiate with their customers to add appropriate stranded cost provisions to their existing contracts that do not already contain exit fee or other explicit stranded cost provisions."[186]

The NOPR proposes further that, if an existing contract can be construed to address stranded costs already, then the opportunity to amend the contract during the three-year transition period will be limited. First, if a contract contains an explicit exit fee provision, the public utility is barred from seeking to amend that provision. Second, if the contract contains a

182. *Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, IV F.E.R.C. STATS. & REGS. ¶ 32,507, at 32,859 (1994).

183. The Commission proposed a definition of wholesale stranded costs as "any legitimate, prudent and verifiable costs incurred by a public utility or a transmitting utility to provide service to a wholesale requirements customer that subsequently becomes, in whole or in part, an unbundled transmission services customer of that public utility or transmitting utility." *Id.* at 32,866. "Retail stranded costs" are similarly defined. *Id.*

184. 68 F.E.R.C. ¶ 61,222 (1994).

185. *Id.*

186. IV F.E.R.C. STATS. & REGS. ¶ 32,507, at 32,869.

notice provision, there will be a rebuttable presumption that the supplying utility had no reasonable expectation of supplying the customer beyond the notice period. Thus, proposals to amend the notice provision or to seek stranded costs for a period beyond the notice period must overcome such a presumption. Finally, if a contract is silent, a utility may seek either to amend the contract to impose an exit fee, or, if a customer departs the system prior to the end of the three-year transition period, to recover stranded costs through transmission rates. The Commission opined that it is only in this variation on the third situation that a utility should be permitted to put stranded costs "on the wires," i.e., to recover such costs through its transmission rates.[187]

The Commission also invited comment on whether alternatives to the direct assignment method for wholesale stranded cost recovery proposed in the NOPR "might give customers reasonable certainty of the scope of their stranded cost obligation more quickly than a direct assignment approach would, and thus might expedite the transition to a more competitive wholesale market."[188] The example of such an alternative offered by the Commission was an access charge related to use of the transmission system.[189]

Prior to issuance of the Stranded Cost NOPR, the recovery of wholesale stranded costs had been governed by the standard set forth in *Entergy* (the order remanded to the Commission in *Cajun*).[190] In *Entergy*, the Commission spelled out the conditions under which it would permit a utility to include wholesale stranded generation costs as part of its transmission rates. The Commission stated that, in order for Entergy to recover legitimate and verifiable costs associated with wholesale power customers who become transmission-only customers, the company was required to demonstrate that it made relevant decisions to invest in generation and other assets based on a contractual commitment or a reasonable expectation that the departing customer would remain a wholesale power customer.[191]

In *Entergy*, the Commission set out a three-factor test for stranded cost recovery. An entity requesting stranded cost recovery would be required to show that it (1) incurred generation investments or other obligations on the customer's behalf based on a reasonable expectation at the time that the customer's power contract would be renewed; (2) capped proposed stranded cost liability at the level of fixed costs the customer would have contributed to the system had the customer remained a power cus-

187. *Id.* at 32,871-72.

188. *Id.* at 32,867-68.

189. *Id.* at 32,867.

190. 58 F.E.R.C. ¶ 61,234, *reh'g denied*, 60 F.E.R.C. ¶ 61,168 (1992) (*Entergy*), *remanded*, Cajun Elec. Power Coop. v. FERC, 28 F.3d 173 (D.C. Cir. 1994) (*Cajun*).

191. 60 F.E.R.C. ¶ 61,168, at 61,631.

tomer; and (3) took steps to mitigate the customer's stranded cost liability after the customer left the system.[192]

ii. Retail Stranded Costs

In the NOPR, the Commission also addressed retail stranded costs. First, the Commission found it necessary to describe why it believed that such costs could be deemed to be recoverable at the federal level, rather than the state level (where traditionally retail rates have been set, and traditionally the opportunity has been given to recover retail costs). The Commission found that its jurisdiction over the rates, terms, and conditions for transmission service[193] extends to two situations where retail costs arguably could be at issue: (1) when a retail electricity customer becomes a wholesale customer (and takes transmission-only service from its host utility); and (2) when a retail customer purchases electricity from a new supplier (due to permissive wheeling by a local utility, or state or local legislative action permitting retail wheeling). Based on this analysis, the Commission stated:

> While we believe the Commission has the authority to address retail stranded costs through its jurisdiction over the rates, terms and conditions of interstate transmission services used by retail or newly-created wholesale customers, we also believe that the recovery of the costs of transition to competition at the retail level is a matter that should be addressed by state authorities. This is because retail stranded costs will occur primarily as a result of state and local decision making regarding retail franchise areas and the creation of new wholesale entities.[194]

Although the Commission stated its "strong policy preference that states deal with the consequences of stranded costs that occur as a result of retail wheeling,"[195] the Commission solicited comment on two alternatives for dealing with retail stranded cost recovery. Under the first alternative, the Commission would entertain requests for stranded costs when there is no "clear expression by an appropriate state authority that it has dealt with the issue, or in the event of a conflict between states, or among state officials within a single state . . . ."[196] Under the second alternative, the Commission would not entertain requests for retail stranded cost recovery. The Commission, however, solicited comment on whether there should be limited exceptions to the broad prohibition proposed as the second alternative.[197]

Prior to the Stranded Cost NOPR, the Commission issued two orders addressing whether to permit recovery of retail stranded costs as part of the rates for FERC jurisdictional transmission service. The Commission did

192. *Id.*
193. IV F.E.R.C. STATS. & REGS. ¶ 32,507, at 32,876-77 (1994).
194. *Id.* at 32,878.
195. *Id.*
196. *Id.* at 32,878-79.
197. *Id.* at 32,879.

not provide a definitive answer in either order. In the first order, *United Illuminating Co.*,[198] the Commission stated that it would not entertain requests for retail stranded cost recovery if there was an adequate state forum to deal with the issue. However, in the second order, *Massachusetts Electric Co. (MassElectric)*,[199] the Commission permitted a transmission-owning utility to go to hearing and present its case for the recovery of costs allegedly associated with electricity service to a former retail customer. The former retail customer was the Massachusetts Bay Transit Authority (MBTA), which was permitted by the Massachusetts Legislature to become a "utility," and thereby a wholesale customer. In *MassElectric*, the Commission set for hearing the issue of whether Massachusetts Electric Company could recover, through its transmission rates to MBTA, costs it formerly incurred to serve MBTA at retail, and then at wholesale.[200]

7. Stranded Cost Summary

In sum, the Commission's experience with natural gas take-or-pay costs and Order 636 transition costs appears to have provided the impetus for its decision to develop a policy to address electric utility stranded costs at a relatively early stage of the transition process.[201] In many respects, electric utility stranded costs are different from natural gas take-or-pay costs and Order 636 transition costs. The Commission's proposed rule on electric utility stranded cost recovery reflects these differences. In addition to the specific procedures and standards for stranded cost recovery proposed in the NOPR, the Commission has requested comment on whether alternative procedures and standards are more appropriate. In drafting its final rule on stranded cost recovery, the Commission will have to address to what extent, if any, the court's decision in *Cajun* limits its latitude in structuring the stranded cost policy.

IV. A Regulatory Framework for Restructured Wholesale Power Markets

The development of FERC's policies for access to electric transmission appears to have been guided, at least in part, by its experience with the natural gas industry restructuring. In particular, the concept of comparabil-

198. 63 F.E.R.C. ¶ 61,212, *reh'g denied*, 64 F.E.R.C. ¶ 61,087 (1993).

199. 66 F.E.R.C. ¶ 61,036 (1994).

200. In particular, the Commission set for hearing:

> (1) [W]hether Mass. Electric's method of computing the proposed stranded cost charge is reasonable; (2) whether Mass. Electric, at the relevant time, could have expected MBTA to remain a power customer for the duration of the proposed charge; and (3) how Mass. Electric should be required to mitigate the loss of MBTA as a power customer and reflect such mitigation in its proposed charge.

66 F.E.R.C. ¶ 61,036, at 61,060.

201. In the Stranded Cost NOPR, the Commission stated that "[i]ndeed, our experience during the regulatory restructuring of the gas pipeline industry, including the issue of 'take-or-pay' contracts, tells us that reasoned decisionmaking requires thorough consideration of the effects of regulatory and statutory changes, including stranded costs." IV F.E.R.C. Stats. & Regs. ¶ 32,507, at 32,866 n.31 (1994) (citations omitted).

ity was drawn from the Commission's experience with natural gas pipeline open access. Also, general parallels can be drawn between the natural gas and electric utility industries and policy initiatives to introduce competition into both industries. Still, do these parallels necessarily indicate anything about the future course of policy development for the electric power industry? Will the natural gas restructuring be FERC's roadmap for electric policy in the long-run, or will the FERC take an electric route that diverges from the natural gas path?

A. The Comparability Standard

One of the clearest parallels between FERC's electric and natural gas policies is the requirement that transmission owners provide third parties with access comparable to that which the transmission owner provides itself. The FERC is in the process of examining what comparability for electric transmission means in practice. In the course of this examination, the Commission likely will have to address questions the answers to which may determine the extent to which the natural gas model is followed.

First, will the comparability standard prove workable? In particular, based on its investigation of how individual utilities use their systems, will there emerge an objective measure of comparability that can be applied to all utilities? In the alternative, what if the Commission finds that there are significant differences in the ways that individual utilities use their systems?

Second, if the record developed in the *AEP*-type hearings on comparable access establishes that there is no practical distinction between the way that utilities use their transmission at wholesale and at retail, how will the FERC account for the transmission that is embedded in bundled retail service? Due to historical comity and deference, the "rates" for transmission service bundled within delivered retail electricity service are set by the states and not by the FERC. What if it turns out that this "comparable" use of transmission is priced by the states at a rate lower than the wholesale rates established by the FERC? Won't transmission customers argue that the FERC must set the wholesale price equal to the price set by state regulators since they are receiving the "same" service as retail customers?

In the natural gas context, there existed no such jurisdictional quandary. Interstate pipelines are subject to FERC's exclusive jurisdiction, and consequently, there was no need to address whether rates and services subject to state jurisdiction were comparable to FERC-approved rates and services. With respect to electric transmission, however, it remains to be seen whether comparability is really a workable standard where the same asset is regulated by the FERC at wholesale and by the states at retail.

All of these questions lead to what may be the ultimate question about the future of the comparability standard for electric transmission: Will comparability be an effective means of achieving a competitive bulk power market and, if not, what else is necessary? For instance, would an Order 636-type approach, meaning a mandated unbundling of services, be an effective means to achieve the goal of a competitive bulk power market? And if it was determined that this was the preferred approach, what would

unbundling look like in the electric utility context? Would it mean that all power sales would be deemed to be made at the generating plant, with the result being that, for purposes of rendering transmission service, power sales made by the transmitting utility would be treated no differently than third-party sales?

State regulation would be affected if such unbundling principles applied with equal force to the use of transmission to make retail sales, because currently the "rate" for transmission embedded in retail sales service is set by state regulators. In the Stranded Cost NOPR, the Commission opined that, were retail wheeling to be ordered by a state,[202] the Commission would have jurisdiction over the rates, terms, and conditions of such transmission.[203] Consequently, if the Commission mandated the unbundling of transmission service used to support retail sales, the result would be that transmission would be wholly regulated at the federal level. Still, the Commission's analysis in the Stranded Cost NOPR of its authority to regulate the rates, terms, and conditions of transmission did not need to address the question of whether the Commission has the legal authority to compel complete unbundling at both the wholesale level and the retail level. Therefore, this remains an open question.

B. Regional Transmission Groups

The Commission has not articulated, as such, a model for the institutional framework of the restructured electric utility industry. The Commission, however, clearly has endorsed the regional transmission group (RTG) as a vehicle for transmission planning.[204] In its RTG policy statement, the FERC defined an RTG as "a voluntary organization of transmission owners, transmission users, and other entities interested in coordinating transmission planning (and expansion), operation and use on a regional (and inter-regional) basis."[205]

The FERC sees RTGs as an alternative means to achieve the same goals as the transmission access provisions of EPAct.[206] The primary purpose of RTGs is to facilitate the provision of transmission services to potential users and voluntarily to resolve disputes over the provision of such services. But beyond serving as an alternative to the prosecution of transmission access proposals before the FERC, RTGs are anticipated to serve an important planning function. In its RTG policy statement, the FERC stated:

> Since RTGs bring together both transmitting utilities and their customers (and potential customers) in a region, they can provide a means for compa-

202. The Commission made the point that it was *not* addressing the issue of whether the states have authority to order retail wheeling in interstate commerce. IV F.E.R.C. STATS. & REGS. ¶ 32,507, at 32,876 (1994).

203. *Id.*

204. *Policy Statement Regarding Regional Transmission Groups*, III F.E.R.C. STATS. & REGS. ¶ 30,976, at 30,874 (1993).

205. *Id.* at 30,870 n.4.

206. *Id.* at 30,870.

> nies to coordinate their transmission planning more effectively, avoid costly duplication of facilities, and, in conjunction with their respective state commissions, find more efficient solutions to region-wide problems. This is critical because the transmission network is highly interconnected; thus, the actions of one party often affect many others.[207]

While in the wake of Order 636 there has been greater coordination on operational issues among the different segments of the natural gas industry, there is no real natural gas analogue to the RTG.[208] One reason may be that, because the FERC has exclusive jurisdiction over interstate pipelines and has NGA section 7 authority to certificate new interstate pipeline facilities, there is no need for a regional institution to ensure adequate system capabilities. In contrast, the FPA contains no equivalent to NGA section 7 certificate authority. The authorization and siting of electric transmission lines is subject to state approval. Consequently, given the regional nature of electric markets, the importance of close coordination in the operation of the transmission grid, and the need for approval from the individual states where transmission facilities will be constructed, there is the need for a forum in which electric transmission needs can be assessed on a regional basis.

C. Alternative Models for Electric Utility Regulation

In a 1994 ground-breaking order instituting a rulemaking and investigation known as the *California Blue Book* proceeding,[209] the Public Utilities Commission of the State of California (CPUC) proposed, among other things, to require its in-state electric utilities to provide retail wheeling. The CPUC asked parties to address "whether the successful implementation of our direct access proposal depends on a mechanism similar to the Pool established in the UK to address the vital link between the move to increased reliance on bilateral, or multi-lateral contracts, and the need for system reliability."[210] In response, several commentators suggested that perfecting competition in the wholesale market should be a precondition to moving to the direct access regime proposed by the CPUC and that this ought to be achieved by means of a nondiscriminatory pool-based system.[211]

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207. *Id.* at 30,871.

208. However, in terms of the potential for transmission regulation by means of self-governance by the affected parties, it has been suggested that the RTG may be a model for the governance of natural gas market centers. *FERC's OEP Director Richard O'Neill Recommends Self-Regulation of Regional Gas Market Hubs Operating Within Geographical Limits*, FOSTER NATURAL GAS REPORT No. 1978, May 12, 1994, at 12-13; *see also* Donald F. Santa, Jr., The View From FERC, Keynote Address before the American Gas Association Legal Forum, at 5-6 (July 18, 1994).

209. *Re Proposed Policies Governing Restructuring of Electric Services Ind. and Reforming Regulation and Rulemaking Proceedings*, 151 Pub. Util. Rep. 4th (PUR) 73 (C.P.U.C. 1994).

210. *Id.*

211. For example, Professor Paul L. Joskow of the Massachusetts Institute of Technology commented:

> The most important institutional change required to support the movement to a fully competitive electricity sector is the creation of an organized regional wholesale market within which all *physical* transactions must take place. The institutions that make up such a market

In particular, Southern California Edison Company, in its comments proposed the establishment of POOLCO, "a privately owned company independent of the utilities and other generation suppliers that would dispatch all transmission and generation resources."[212] While it was proposed in the context of the *California Blue Book* proceeding, the rates, terms, and conditions for POOLCO service probably would be subject to federal jurisdiction to the extent that the service involves the transmission of electric energy in interstate commerce.

According to the proponents of the POOLCO concept, a shift in the conceptual framework for regulation of the electric power industry is necessary in order for an efficient competitive electricity market to evolve. Their position is that the concept of transmission service as a distinct commodity separate from electric energy itself is inconsistent with both the way that the electricity system operates and the way that many efficient markets operate in practice.[213] In support of this position, they assert that "[e]lectricity is different from other commodities in two principal ways: It cannot be stored except at prohibitively high cost; and it must be moved on a closely coordinated, integrated system that displays large economies of scale."[214]

The POOLCO proponents' case for the proposed shift in the conceptual framework for regulation from the "wheeling model" to the "POOLCO model" can be summarized as follows:

> Wheeling is an evolutionary dead end. The basket of *ad hoc* arrangements called "wheeling" was developed to handle a few incremental trades among integrated, regulated monopolies, not to encourage or even allow competition. The effort to extend these arrangements to support competition is producing a logical and regulatory quagmire of debates about opportunity costs, loop flow, contract paths, network service, back-up energy and losses, etc. If effective and efficient competition in electricity is ever to evolve, the industry and its regulators must make an evolutionary leap from a model developed by and for monopolists to a model in which competition is the central theme, not an awkward and basically unwelcome add-on.[215]

The POOLCO proposal represents an approach that is different from the Order 636 model of using disaggregated services to achieve an efficient,

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must provide for: efficient transmission pricing arrangements that take account of parallel flows and constraints' efficient expansion of the transmission network; clear assignment of responsibilities for providing and paying for spinning reserves, reactive power, and other services required to maintain reliability on the interconnected AC network; unit commitment, scheduling and central economic dispatch of generating facilities; and transparent mechanisms for determining prices in real time, for monitoring compliance with the market rules, and for settlements of financial responsibilities between market participants.

Paul L. Joskow, Comments on the *California Blue Book Proceeding* (July 1, 1994).

212. *See* Southern California Edison Company, Response (U-338-E) to Order Instituting Rulemaking and Order Instituting Investigation Dated April 20, 1994, *in California Blue Book Proceeding*, at 25 (June 8, 1994). The term "POOLCO" has come to be used generically to describe the concept of a nondiscriminatory pool-based system for dispatching generation and transmission.

213. Larry Ruff, *Stop Wheeling and Start Dealing: Resolving the Transmission Dilemma*, ELECTRICITY. J., June 1994, at 24-25.

214. *Id.* at 25.

215. *Id.* at 24.

nondiscriminatory industry structure. Under the POOLCO proposal, unbundling would not mean the disaggregation of transmission and energy into commodities that can be identified and priced separately, and then efficiently rebundled by the customer. Rather, under the POOLCO proposal, energy and transmission would be priced as a single commodity.[216]

Under the POOLCO proposal, unbundling would occur on the basis of industry functions, instead of on the basis of disaggregated services. The POOLCO proponents contend that, in order to make sense, unbundling in the context of the electric utility industry "requires identifying the basic functions of the industry, defining unbundled entities that can perform these functions coherently, and establishing well-defined market relationships among these entities."[217] Based on these criteria, they suggest that the industry be unbundled along the lines of these three functions: (1) competitive generation services; (2) physical delivery services provided by the natural monopoly distribution and transmission systems; and (3) the natural monopoly coordination and spot trading functions. This third set of functions would be conducted or overseen by the POOLCO.

The POOLCO proposal also can be viewed as a version of a power pool. Historically, due to the physical nature of electric power generation and transmission, power pools have been recognized as a means to maximize efficiency through the joint operation of the electric power system. In particular, pooling maximizes the benefits that can be achieved through the economic dispatch of generating units.[218] The POOLCO proposal modifies the traditional power pool arrangement to accommodate the competitive generation market, nondiscriminatory access to transmission, and the multiplicity of buyers and sellers present in a competitive market.[219] POOLCO's proponents contend that it would be relatively easy for existing power pools to evolve into POOLCOs by means of improved pricing and settlement software and expanded membership.[220]

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216. The author further states:

> There is no separate "transmission service" in the integrated locational energy market and hence there is no separate price for such a service. In effect, the price of moving energy from point X to point Y is simply the difference (positive or negative) in energy prices between the two points. But this price differential automatically and efficiently prices such things as losses, loop flow and opportunity costs, compensating existing or "native" grid uses/users for costs imposed on them by new uses/users.

Id. at 37.

217. *Id.* at 28.

218. *See supra* text accompanying notes 43-47.

219. For example, Professor William W. Hogan of the John F. Kennedy School of Government, Harvard University, commented to the CPUC:

> There is a strong case for building the institutions of the wholesale market through nondiscriminatory participation in a pool-based system. [footnote omitted] Economic dispatch defines the limiting case of the efficient market in which there are no unexploited opportunities for profitable short-term trading of energy. The pool model provides everyone, large and small, an equal opportunity to enjoy the benefits of efficient trading and all the other services that are essential in the complex interactions of an integrated power system.

See William W. Hogan, Comments on the *California Blue Book Proceeding*, at 5-6 (July 15, 1994).

220. Ruff, *supra* note 213, at 35.

The point here is not to advocate the POOLCO model.[221] Instead, the point is that there exist alternatives to the "wheeling model," which currently serves as FERC's conceptual framework for regulating the electric power industry under the FPA.[222] The "wheeling model" closely parallels FERC's conceptual framework for regulating the interstate pipeline industry under the NGA. Consequently, FERC's experience with restructuring the natural gas industry has been relevant to FERC's evolving electric policies. But, were the FERC to embrace the concept of an alternative model, such as the POOLCO model, as the basis for its regulation of the electric power industry, then the direct relevance of FERC's experience with the natural gas restructuring would be diminished.

D. Regulatory Framework Summary

The extent to which the development of FERC's policies for regulating the electric power industry continues to parallel its policies for regulating the natural gas industry will depend on the relevance of the differences in the legal, institutional, and operational frameworks for the two industries to the development of such policies. Clearly, there are parallels in terms of the Commission's pursuit of regulatory policies to promote the development of competitive markets through open access to transmission services, and in terms of the recognition of the need for regulatory policies to address the economic costs associated with the development of competitive markets. Still, when it comes to the specific policies to achieve these broad regulatory purposes, the differences in the legal, institutional, and

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221. In reply comments submitted in the *California Blue Book* proceeding and elsewhere, parties have taken issue with the case that POOLCO is necessary either as a means to perfect the wholesale market or as a prerequisite to direct access. For example, in its reply comments, Pacific Gas and Electric Company (PG&E) stated:

> For wholesale pools to offer significant additional benefits to California electric consumers, either (a) there would have to be an absence of existing wholesale pooling arrangements, or (b) existing wholesale pooling arrangements would have to be inefficient and incapable of capturing full benefits for consumers. Neither is the case in California and, thus, time, energy, and money spent enhancing or reinventing the existing wholesale system will yield little if any incremental value.

Pacific Gas and Electric Company, Comments (U-39-E), *in California Blue Book Proceeding*, at 7 (July 26, 1994).

PG&E also commented:

> It should be emphasized that a fully functioning *retail* power pool probably will be one of the essential pieces of the infrastructure needed before direct access is extended to large numbers of customers, such as residential and commercial customers. However, such a pool is not a prerequisite to beginning direct access. . . . Such a pool would form naturally, based on the needs of buyers and sellers, and need not and should not be mandated by the Commission.

Id. at 11 (emphasis in original).

222. In fact, in other jurisdictions similar models have been used as the basis for the structure and regulation of the electric power industry. The most prominent example is the pool model that was used as the basis for the privatization and restructuring of the electric power industry in England and Wales. *See, e.g.*, Tim Woolf, *Retail Competition in the Electric Industry: Lessons From the United Kingdom*, ELECTRICITY J., June 1994, at 56; IRWIN M. STELZER, A FEW MODEST PROPOSALS FOR REGULATORY REFORM WITH REFERENCE TO THE BRITISH EXPERIENCE (Putnam, Hayes & Bartlett, Inc. 1991).

operational frameworks for the two industries begin to dictate differences in the details of the Commission's policies.

The preceding discussion highlighted three variations of the regulatory framework for the restructured wholesale power market. The first variation was implementation of the Commission's comparability standard for electric transmission service. While the comparability standard clearly parallels the principles that form the basis for FERC's Order 636 restructuring rule for interstate natural gas pipelines, its application in practice is complicated by the fact that electric utilities use their transmission at both wholesale and at retail, and by the fact that when such transmission is embedded in retail sales service, it is regulated by the states and not by the FERC.

The second variation is the RTG model that the FERC has encouraged in its RTG policy statement. The article noted that there is no natural gas industry analogue to the RTG. The need for RTGs is attributable, to some extent, to factors that are not present in the natural gas industry context: (1) the need for highly integrated operation of the electric transmission grid; (2) the distinct regional nature of electric power markets; and (3) the lack of federal siting authority as a means to facilitate coordinated, region-wide planning of electric transmission.

The third variation is the POOLCO model that has been suggested in comments to the CPUC and elsewhere. The foundation for the POOLCO model is a recognition of the unique characteristics of electricity as a commodity. Implementation of the POOLCO model would require unbundling along the lines of the basic functions of the electric power industry and the entities that could perform such functions efficiently. According to its proponents, this would require a paradigm shift away from the "wheeling model" that is the basis for current regulation and that closely parallels FERC's conceptual framework for regulating interstate natural gas pipelines. Consequently, because POOLCO represents an alternative model for regulation of the electric power industry, the direct relevance of FERC's experience with the natural gas restructuring would be diminished.

Finally, with respect to FERC's ability to prescribe an institutional framework for the restructured electric power industry, several observations are in order. First, due to the competitive evolution of the industry and the role of the market in dictating change, any attempt to dictate institutional structure through regulatory policy will succeed only if it is consistent with the direction signalled by the market. Second, in comparison to the natural gas restructuring in which the FERC had exclusive jurisdiction due to its jurisdiction over interstate pipelines, the states play a major role in the regulation of the electric power industry. Consequently, in addition to FERC regulation, state regulation will affect the extent to which regulatory policy shapes the restructured electric power industry. Finally, consistent with the two foregoing observations, FERC policy can steer the direction of restructured electric power industry. An example of this is FERC's RTG policy statement and its effect on the development of regional structures for transacting business in the electric power industry.