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Control and Governance of Transmission Organizations in the Restructured Electricity Industry

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CONTROL AND GOVERNANCE OF TRANSMISSION ORGANIZATIONS IN THE RESTRUCTURED ELECTRICITY INDUSTRY

CHARLES H. KOCH, JR.*

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I. INTRODUCTION

The electric utility industry, the largest industry in the United States,¹ is in the process of a radical restructuring from a highly

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regulated industry to one driven by a market regime. The impact of this restructuring will be profound and lasting on every aspect of our society. As the fourth largest state in the United States, the Florida Legislature's approach to the deregulation of the electric utility industry and the emergence of the market regime will be of particular interest to the rest of the country. At present, particular attention is directed toward the transformation of control and governance of bulk transmission facilities, whose crucial role in transmitting electricity from generating plants to consumers represents the core of the electric utility industry.

Applying the market approach to the electric utility industry is plausible and has, to an extent, already proven workable.² Nevertheless, certain technical characteristics unique to the industry challenge the conversion from a regulatory scheme to a purely market-driven regime. This conversion has been the focus of an impressive amount of creative energy. In 1996, the Federal Energy Regulatory Commission (FERC) supplied the industry's new foundation by promulgating two rules, Order 888 and 889,³ both of which sought to precipitate a shift to a market driven industry. Encouraged by these rules, the electric utility industry and various government institutions have restructured the industry in many regions of the country.⁴

Industry participants must formulate a management scheme tailored to the unique institutions that will serve as the cornerstone of the restructuring process. The emerging industry will have three separate segments: generation, marketing and distribution, and transmission. While a market approach to the generation and distribution segments appears feasible,⁵ applying the same market approach to the transmission segment is problematic because electricity is an undifferentiated product that cannot be efficiently stored and cannot be directed from a source of production to any specific end-user. Thus, the overarching task is to structure the transmission segment of the electric utility industry in a way that does not endan-

1. See TIMOTHY J. BRENNAN ET AL., A SHOCK TO THE SYSTEM: RESTRUCTURING AMERICA'S ELECTRICITY INDUSTRY 5 (1996) (stating that electricity had *retail sales* of over \$200 billion in 1994).

2. See *infra* Part III.

3. See Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, 61 Fed. Reg. 21,540 (1996) [hereinafter Order 888] (codified at 18 C.F.R. pts. 35 & 385); Open Access Same-Time Information System (Formerly Real-Time Information Networks) and Standards of Conduct, 61 Fed. Reg. 21,737 (1996) [hereinafter Order 889] (codified at 18 C.F.R. pt. 37). The Florida Public Service Commission was an active participant in these rulemaking proceedings. See Order 888, 61 Fed. Reg. at 21,698.

4. See *infra* Part II.C.3.

5. See *infra* Part II.B.

ger the market solutions at work in the generation and distribution segments.

The current design of the transmission segment is not directed by legislation but by the FERC, through its delegated rulemaking authority.⁶ On May 13, 1999, the FERC issued a rulemaking notice to accumulate information and comments on what should be the structure of regional transmission organizations.⁷ The rulemaking notice attempted to guide both the design of the transmission segment and its governing institutions. A number of designs have been proposed, and several systems have been implemented.⁸ However, many states, including Florida, are still in various stages of restructuring.⁹

This Article examines an alternative design for the governance and decision-making processes of transmission organizations. Part II of this Article provides a context for the restructuring of the electric utility industry, including obstacles to a market approach, models for structuring the industry, the evolution of regulatory policy, and a discussion of the transmission segment of the industry. Part III provides reasoning and authority for a regional approach to restructuring the transmission segment of the industry. Part IV discusses the control of transmission organizations and examines the For-Profit Model and the Not-For-Profit Model. Part V examines the governance of electricity transmission organizations including governance mechanisms, the regulatory aspects, and the policy-making process. Part VI provides an examination of the need for individual dispute resolution in electricity transmission organizations, a discussion of the FERC's contribution to ADR in transmission organizations, and a review of law and policy in an electricity dispute resolution system. The conclusion provides that the design of electricity transmission organizations is the keystone of the electric utility industry's restructuring and that the FERC should mandate a regional approach to this design.

6. Two key electricity-restructuring bills, however, are before Congress, each of which includes provisions regarding transmission organizations. See Electric Consumers' Power to Choose Act of 1999, H.R. 2050, 106th Cong. (1999); The Comprehensive Electricity Competition Act, H.R. 1828, 106th Cong. (1999); The Comprehensive Electricity Competition Act, S. 1047, 106th Cong. (1999).

7. See Regional Transmission Organizations; Notice of Proposed Rulemaking, 64 Fed. Reg. 31,390, 87 FERC ¶ 61,173, at 61,684 (1999) [hereinafter RTO NOPR] (codified at 18 C.F.R. pt. 35). One of the regional sessions conducted to formulate this proposed rule was held in Orlando, and the Florida Public Service Commission along with several Florida utilities participated. See *id.* at 31,442.

8. See *id.* at 31,410-11 n.159.

9. See *infra* Part II.C.3.

II. CONTEXT

A. *Obstacles to a Market Approach for the Electric Utility Industry*

Three discrete bodies of law shape the electric utility industry: physics,¹⁰ economics, and society. The laws of physics that govern electricity are inflexible, leaving economics and society to adapt. Therein lies the complexity of restructuring the electric utility industry.

Three characteristics of electricity mold the design of the electric utility industry. First, the product is totally undifferentiated. Second, the product cannot be economically stored,¹¹ and hence "electricity is the ultimate perishable commodity."¹² Third, electricity cannot be directed from a source of production to any specific end-user but, instead, must flow *towards* that user.

The combination of these three characteristics of electricity frustrates implementation of a market approach to the electric utility industry. The complications arising from this combination are aptly illustrated through the following metaphor: envision a person in Spain buying a cup of water from someone in the United States. The seller in the United States must deliver the water by dropping it into the Atlantic Ocean. To receive the delivery, the purchaser in Spain then dips into the Atlantic Ocean to withdraw the cup of water. The seller delivered a cup of water into the system and the purchaser withdrew a cup of water, but in no sense can either party identify the particular molecules of water that were the subject of their market transaction. The transportation of the seller's cup never literally occurs, and the cup withdrawn actually comes from an unidentifiable source, which in all probability is not the seller.

Similarly, a generator plant adds unidentifiable units of electricity to the flow from which a consumer extracts electricity for personal use. The generator plant's agreement to supply the consumer with electricity can be honored only in the most artificial sense. Adding to this artificiality is the fiction that a particular unit of electricity is transported and transmitted directly to the user. In actuality, the consumed unit may have traveled any number of routes from any number of sources to the consumer.

The above conceptual problems did not exist in a pre-regulation, monopolistic electric utility industry in which a vertically-integrated utility generates, transports, and markets electricity. The consumer simply contracts with the utility, and the rest of the operation is co-

10. See Richard J. Pierce, Jr., *Antitrust Policy in the New Electricity Industry*, 17 ENERGY L.J. 29, 44 (1996).

11. See *id.*

12. *Id.*

ordinated by the utility. But a vertically-integrated electric utility industry presents serious economic problems. For instance, the utility may, and should if acting responsibly for its owners, behave as a monopoly that limits the supply of electricity to maintain higher prices. Thus, a monopolistic, vertically-integrated system produces less electricity at a higher price than would a free market system, resulting in a social welfare loss. The solution to the monopoly problem was regulation: allow the electric utility to coordinate the generation, transmission, and marketing of electricity while remaining under the command of a regulated and socially optimum management.

The laws of physics that dictate the method of electricity transmission confound replacing the regulatory structure with a free market structure.¹³ The question remains: How can a market in electricity work when industry participants have so little control over the delivery of their product? To date, the fiction of a "contract path" has been used to solve the dilemma.¹⁴ In the contract path fiction, a particular generator agrees to sell a quantity of electricity to its consumers. The consumers are under the impression that they are receiving units of electricity directly from the generator. Therefore, the fiction allows market-like transactions to take place. In reality, the electricity of a particular generator plant is combined with the flow of electricity produced by numerous generator plants, and the consumer extracts electricity from this flow of undifferentiated units.

Not only do consumers never actually receive the contracted-for units from the specific generator, but, of course, the transportation of those contracted-for units never actually takes place. The generator produces electricity that is added to a flow of undifferentiated units of electricity and the end-user draws from that flow. The costs of the transmission facilities and services must be included in the agreement and borne by the parties. Transmission charges may be set through a second fiction in which the contracted-for units are seen as actually traveling over the wires from the generator to the end-user.

In addition to the laws of physics obstacle, an economic obstacle exists that further hampers the adoption of a market regime. For decades, the assumption was made that the electric utility industry as a whole was a natural monopoly and that large firms were the most efficient form of organization, with regulation only attempting to temper economic abuse of their dominant positions.¹⁵ The unas-

13. *See id.*

14. RTO NOPR, *supra* note 7, at 31,424.

15. "In a world in which competition is ideal, . . . there is a natural monopoly in a particular market if and only if a single firm can produce the desired output at lower cost than any combination of two or more firms." WILLIAM W. SHARKEY, *THE THEORY OF NATURAL MONOPOLY* 54 (1982). A "natural monopoly" exists where a firm's average costs continue to fall within any feasible range of production and hence one producer can satisfy total demand requirements at the lowest cost. JACK HIRSHLEIFER & DAVID HIRSHLEIFER, *PRICE*

sailable conclusion remains that, while operation and distribution are not inherently monopolies, bulk transmission operates most efficiently, indeed inevitably, as a monopoly. This transmission monopoly between the two competitive segments threatens the market approach. In sum, the restructuring of the electric utility industry from a regulated monopoly to a free market system will require an organizational breakthrough in the design of transmission organizations that thwarts the tendency toward monopoly.

B. A More Realistic View of Electricity in a Market-Driven Electric Utility Industry

Redesigning transmission organizations must begin with accepting the limitations inherent in electricity due to the laws of physics and economics. First, the fiction of bundles of contracted-for electricity leaving the generator plant for transport to the consumers must be banished. Second, a new conceptualization of electricity must be adopted in which a generator plant sells its electricity into the flow, and the consumers purchase electricity from this flow. The new design of transmission organizations must simply ensure that electricity flows from the generator plants to the consumers.

The laws of physics are inherent in the existing structure of transmission organizations. Every transmission organization has a *system operator*, an entity that makes decisions concerning the flow of electricity, or *dispatch*, which directs the flow of electricity. The system operator is a technical operation within the structure of the utility. Thus, system operators exist as the natural control centers for electricity transmission. Restructuring transmission systems entails redesigning the existing structure so that transmission may become part of a market-driven electric utility industry.

In economic terms, a market-driven electric utility industry faces two pricing problems: (1) coordinating the supply and demand for electricity, and (2) setting a price for transmission so that resulting loads, the electricity being transmitted, equals capacity, the amount of electricity that can flow through the bulk transmission wires. Any form of restructuring must produce a market-clearing price for electricity whereby the supply matches the demand at a level that can be accommodated by the transmission organization. Since electricity en-

THEORY AND APPLICATIONS 241-42 (6th ed. 1998). Observations regarding "subadditivity" suggest that the discovery of the social advantage from monopoly and perhaps regulation is more complicated than just declining costs. WILLIAM J. BAUMOL ET AL., *CONTESTABLE MARKETS AND THE THEORY OF INDUSTRY STRUCTURE* vi (1982) ("One of the fundamental insights on which this book is based is the finding that it is subadditivity of costs, and not scale economies, that determines when society can be served more economically by a monopoly firm."). Beyond cautioning that one firm might produce at lower cost not linked to scale economies, applying subadditivity is a daunting empirical enterprise. See *id.* at 170-72.

ters and exits these transmission organizations, the managers of those facilities will be key players in instituting market reforms. The efficient solution to the second problem places the transmission organizations in a bottleneck position. Without a pricing system that constrains the monopolistic tendencies of the transmission organizations, market-driven changes in the organizations will not be successful.

C. Evolution of Regulatory Policy

The regulation of the electric utility industry was due in part to the acceptance that the industry is a "natural monopoly."¹⁶ Regulation of the industry was intended to capture the economic benefits from the economies of scale inherent in large, integrated electric utilities, but compelling the utilities to perform as if ruled by market forces. Recently, deep-seated economic and social forces have moved the focus from regulatory policy to market-driven approaches.¹⁷

1. Growing Skepticism about Regulation

The governmental regulation of the electric utility industry, while not without criticism,¹⁸ appeared unassailable until the late 1960s. Theoretical challenges to governmental regulation could not compete with the fact that the real price of electricity declined steadily over the same period.¹⁹ However, the decline in prices was primarily due to technological advances rather than to the efficiency of regulation.²⁰

16. See generally RICHARD RUDOLPH & SCOTT RIDLEY, *POWER STRUGGLE: THE HUNDRED-YEAR WAR OVER ELECTRICITY* (1986) (tracing the history of how the conflict between public and private interests has shaped the electric utility industry).

17. See Joseph D. Kearney & Thomas W. Merrill, *The Great Transformation of Regulatory Industries Law*, 98 COLUM. L. REV. 1323, 1383 (1998):

We will consider four economic and social explanations for recent regulatory changes, arranged in order of increasing generality: (1) that the great transformation has been caused by technological changes; (2) that it has been caused by a series of chain reactions brought about by the introduction of competition in one industry which has destabilized the status quo in another industry; (3) that it is the product of interest group politics; and (4) that it reflects an ideological consensus among policy elites that the risks of regulatory failure associated with the original paradigm are greater than the risks of market failure associated with competition.

18. See *supra* text accompanying notes 11-12.

19. See Bernard S. Black & Richard J. Pierce, Jr., *The Choice Between Markets and Central Planning in Regulating the U.S. Electricity Industry*, 93 COLUM. L. REV. 1339, 1344 (1993) (citing Paul L. Joskow, *Inflation and Environmental Concern: Structural Change in the Process of Public Utility Price Regulation*, 17 J.L. & ECON. 291 (1974)).

20. "On the contrary, retrospective studies have produced considerable evidence that cost-of-service regulation failed at its basic task of limiting utilities to a normal return on invested capital." *Id.* (citing Paul L. Joskow, *Inflation and Environmental Concern: Structural Change in the Process of Public Utility Price Regulation*, 17 J.L. & ECON. 291 (1974)); see generally Richard J. Pierce, Jr., *A Proposal to Deregulate the Market for Bulk Power*, 72

Still consumers were delighted to have cheap, readily available electricity. Governmental regulation of the industry, while viewed as a second-best solution, was considered far superior to a free-market system in which the utilities' dominant position would prevent any form of regulation by market forces.²¹

In the 1970s, developments in engineering, economics, and law threatened the stability of the government's electric utility regulation. First, utilities began to exhaust economies of scale in the generation segment, and the generation segment no longer resembled a natural monopoly.²² At the same time, the transmission segment became more efficient, and power could be transmitted as far as 1,000 miles from the point of generation.²³ Due to this increased transmission range, the electricity market became regional rather than local.²⁴ Second, electricity rates paid by consumers began to increase in real terms due to rising fuel and environmental cost.²⁵ Third, the United States Supreme Court decided *Otter Tail Power Co. v. United States*,²⁶ in which the Court recognized that at least some segments of the electric utility industry could be competitive with one another and, thus, subject to antitrust laws.²⁷ The decision in *Otter Tail*, in concert with the publicity surrounding the decision in *United States v. American Telephone & Telegraph*,²⁸ which opened telecommunications to competition, shook the legal foundations of the regulatory regime.²⁹

Key to the evolution of regulatory policy is the electric utility industry's commitment to substantial growth. Two forces caused this commitment. First, traditional rate regulation led utilities to make excessive investments in increasing their "rate base."³⁰ A large rate base for a utility is advantageous because rates were computed to recover regulatory costs and generate some profits, or "rate of return."³¹ Thus, utilities that could convince government regulators to permit an above-normal return on capital had a financial incentive to over-

VA. L. REV. 1183, 1183-1208 (1986); George Stigler & Claire Friedland, *What Can Regulators Regulate?: The Case of Electricity*, 5 J.L. & ECON 1 (1962).

21. See generally ALFRED E. KAHN, *THE ECONOMICS OF REGULATION: PRINCIPLES AND INSTITUTIONS* (1970) (evinced an emerging skepticism that was to be instrumental in the deregulation movement).

22. See Black & Pierce, *supra* note 19, at 1345.

23. See *id.*

24. See *id.*

25. See PETER FOX-PENNER, *ELECTRIC UTILITY RESTRUCTURING: A GUIDE TO THE COMPETITIVE ERA* 14 (1997).

26. 410 U.S. 366 (1973).

27. See *id.* at 374-75 (holding that antitrust laws can be applied to electric utilities).

28. 522 F. Supp. 131 (D.C. Cir. 1982).

29. See *id.* (leading to the breakup of AT&T and opening telecommunications to competition).

30. Black & Pierce, *supra* note 19, at 1344-45.

31. *Id.*

invest in capital assets, which is termed the "Averch-Johnson effect."³² Second, federal agency recommendations projected a significant increase in the demand for electricity that led regulators to encourage utilities to engage in substantial expansion.³³ Yet in the 1980s, demand for electricity flattened, due to price increases and the popular call for conservation.³⁴ Utility managers lost their financial glitter as government regulators restricted utilities' attempts to recover their investment in capital assets through higher rates to the consumers.³⁵ Thus, the utilities began to seek relief from the governmental regulatory regime, which restricted their profit margins.

2. Federal Policy Development

In 1935, the Federal Power Act was amended to give the recently created Federal Power Commission (FPC) authority over all wholesale distribution of electricity.³⁶ When the Department of Energy was created in 1977, FPC was reconstituted as the FERC.³⁷ The FERC, like the FPC, has the power to regulate rates charged by electric utilities and to supervise the general performance of the electric utility industry. Regulatory authority over the electric utility industry is divided between the FERC and state regulatory authorities, which are known by a variety of names including public utility commissions (PUC) and public service commissions (PSC).³⁸ Congress assigned the FERC authority over the wholesale, bulk segment of the industry, and states had authority over the industry's non-interstate and retail segments.³⁹

The FERC, with the support of Congress, began considering a comprehensive restructuring of the rules governing the electric utility industry.⁴⁰ On April 24, 1996, the FERC issued Orders 888 and

32. Harvey Averch & Leland Johnson, *Behavior of the Firm under Regulatory Constraint*, 52 AM. ECON. REV. 1052 (1962).

33. See Black & Pierce, *supra* note 19, at 1345-46.

34. See *id.* at 1346.

35. See *id.*

36. In 1920, Congress created the Federal Power Commission in the Federal Power Act, Part I and gave the Commission power over hydroelectric projects. See 16 U.S.C. §§ 791-823 (1999). The Federal Power Act, Part II gave the FPC power over wholesale electric power. See 16 U.S.C. § 824 (a)-(m) (1999).

37. See 42 U.S.C. §§ 7172(a)(1)(B), 7293 (1994).

38. This article uses the term "PSC" to refer to state regulatory authorities in general because Florida has chosen that term.

39. See 42 U.S.C. § 7172 (1994).

40. The National Energy Act of 1978 produced a compendium of laws aimed at restructuring the entire United States energy industry, with several features directed specifically at electric utilities. More significant was the Public Utilities Regulatory Policies Act of 1978 (PURPA). PURPA, Pub. L. No. 95-617, 92 Stat. 3117 (codified in scattered sections of 15, 16, 30, 42, and 43 U.S.C.). PURPA encouraged, but did not require, rate reform and, most significantly, attempted to advantage certain types of independent generators, or "qualifying facilities." See *id.* (Utilities were required to purchase their power at a price

889.⁴¹ Order 888 sought to precipitate a shift to a market-driven industry primarily by compelling open access to the transmission "grid," the web of interconnected bulk power wires.⁴² Order 889 attempted to establish transparent pricing of electricity by compelling electronic posting of prices and availability through creating a computer network of electricity market information known as "Open Access Same-Time Information System" (OASIS).⁴³ While Order 889's pricing transparency was necessary for the emergence of the competitive electric utility industry, Order 888's open access initiative supplied the general foundation upon which restructuring would be built.⁴⁴ The strategy behind Order 888 was to describe goals and allow the utilities, with PSC coordination, to design a new market-driven industry.⁴⁵

3. State Developments

State electric utility deregulation has proceeded at an uneven pace, with high-cost electricity states, such as California, New Hampshire, and Pennsylvania, moving quickly to deregulate, and low-cost states like Kansas, Nebraska, and Kentucky enacting few, if any, changes to their regulatory schemes.⁴⁶ Despite the uneven pace, the trend in all states, as in the federal regulatory system, is toward less regulation and more competition in the electric utility industry.⁴⁷ Electric utility deregulation is a contentious political issue in most states.⁴⁸ While most deregulation orders were issued through legisla-

that did not exceed the "avoided costs," the cost they would have incurred by building new plants.). The crucial legislative step was the Energy Policy Act of 1992 (EPAct). EPAct, Pub. L. No. 102-486, 106 Stat. 2776 (1992) (codified, among other places, at 15 U.S.C. § 79z-5a (1997), and 16 U.S.C. §§ 796(22-25), 824j (1985)). There, Congress required the FERC to force utilities to deliver power from generators to other utilities and electricity wholesalers at reasonable, nondiscriminatory, cost-based rates. *See id.* This legislative mandate led the FERC to issue its open access rule, Order 888.

41. *See* Order 888, *supra* note 3; Order 889, *supra* note 3.

42. *See* Order 888, *supra* note 3, at 21,552.

43. Order 889, *supra* note 3, at 21,737.

44. *See* Order 888, *supra* note 3, at 21,541.

45. *See id.* at 21,542.

46. *See* U.S. Energy Information Administration, *Status of State Electricity Restructuring Activity as of March 2000* (visited Apr. 1, 2000) <http://www.eia.doe.gov/cneaf/electricity/chg_str/tab5rev.html>.

47. *See id.*

48. The greatest challenge to deregulation may be the issue of stranded costs. Deregulation would make many utilities' past investments economically unviable. The costs of these commitments, or "stranded cost," could amount to between 10 and 200 billion dollars. *See* BRENNAN, *supra* note 1, at 96. Who will bear these costs is controversial. Order 888 guarantees utilities may "recover their legitimate, prudent and verifiable stranded costs." Order 888, *supra* note 3, at 21,628. Stranded cost recovery is standard in deregulation bills. Still, in both California and Massachusetts, ballot initiatives were proposed that would limit the recovery of stranded costs. *See* California Proposition 9 (1998); *Massachusetts Question 4: Referendum on an Existing Law* (1998) (last modified Jan. 29, 2000) <<http://www.state.ma.us/sec/ele/elebq98/bq98qst4.htm>> (limiting the recovery of stranded

tion, some state PSCs have been primarily responsible for state deregulation.⁴⁹ In fact, some legislatures have passed bills instructing their PSCs to instigate the deregulation of the electric utility industry.⁵⁰ However, when PSCs have attempted to instigate deregulation without a delegation of authority from their legislatures, such as in New Mexico and Michigan,⁵¹ state supreme courts have struck down PSC deregulation orders.⁵²

Electricity rates vary substantially throughout the country, which leads to different concerns regarding deregulation in different regions. States with higher-than average rates are most anxious to experiment with deregulation while ratepayers in low-rate states worry that regionalization will lead their utilities to seek more profitable markets and subsequently increase their rates.⁵³ Florida was among those states that advised the FERC that the above concerns should not be allowed to impede state deregulation.⁵⁴

D. Focus on the Transmission Segment of the Industry

At present, reforms of the regulatory policy for the electric utility industry are comprehensive and attempt to restructure the industry as a holistic unit. The several schemes now in place are building a useful foundation for creating a wholly market-driven industry.⁵⁵ However, as discussed above, the transmission segment of the industry resists market alternatives for reasons based in both the physical characteristics of electricity as a product and the economic realities of transmitting electric current through bulk transmission systems.⁵⁶ Thus, special attention must be placed on the transmission segment for the entire industry to emerge as market-driven.

1. Emergence of the ISO Solution

The dominant approach to restructuring the transmission segment of the electric utility industry revolves around the development of independent transmission system operators (ISOs). Many experts urge that the best method for ensuring nondiscriminatory transmission of electricity is to place management, if not ownership and op-

costs would have required a *no vote* to the ballot question, which asked whether voters approved of the state's electric utility restructuring act passed the previous year).

49. See U.S. Energy Information Administration, *supra* note 46.

50. See *id.*

51. See *id.*

52. See *Sandel v. New Mexico Pub. Util. Comm'n*, 980 P.2d 55, 64 (N.M. 1999).

53. See U.S. Energy Information Administration, *supra* note 46.

54. See RTO NOPR, *supra* note 7, at 31,412.

55. See U.S. Energy Information Administration, *Evolving Regulatory Reform: The Federal and State Role in Promoting Competition* (visited Apr. 1, 2000) <http://www.eia.doe.gov/cneaff/electricity/chg_str/chapter7.html>.

56. See *supra* Part II.A.1.

eration, in the hands of an independent entity.⁵⁷ If the management function can be segregated from the business of transmission, the independent management could operate the grid to facilitate the emergence of a market-driven regime without the contamination inherent in being a market participant.⁵⁸

An ISO has two complementary roles: (1) "daily operation" of a specified transmission grid, the scope of which can be controversial, and (2) implementation of a "bidding system that would determine which generators provide power to the grid" at any given price and "point in time."⁵⁹ The ISO would "use existing algorithms that reflect the characteristics of the grid, including the capacity constraints and network interactions that exist in varying generation and load conditions."⁶⁰ These capacity or *congestion* constraints define the value of the transmission operation, and the ISO would optimize transmission capacity so that the least costly electricity flows to the consumers who value it the most.⁶¹

The ISO, alone or coordinated with another entity, would engage in this complicated operation in addition to the technical operation of managing the flow of electricity. The ISO would either run or be affiliated with a "power exchange."⁶² For each half hour, "each purchaser would submit a bid that consists of the quantity of electricity" the purchaser desires at any particular price, and each generator plant "would submit a bid that consists of the quantity of electricity" that the plant "is willing to sell" at any given price; thus, the prices for each bid may vary for different delivery points and extraction points, often referred to as "nodes."⁶³ The ISO "would then input the bids and run the algorithm."⁶⁴ The output from the algorithm would include (1) "the quantity of electricity that flows in and out of the grid at each node during that half hour;" (2) "the price paid and received at each node;" and (3) "the per unit cost of transmission on each path."⁶⁵ The ISO "would automatically implement an efficient transmission pricing policy" because the "marginal cost of transmission from one node to any other node would be the difference between the time-specific prices of electricity at the two nodes."⁶⁶

57. See Order 888, *supra* note 3, at 21,595-97.

58. See *id.* at 21,596.

59. Pierce, *supra* note 10, at 40 (discussing the "Poolco" model).

60. *Id.*

61. See *id.*

62. Andrew Noceto et al., *Public Utilities Commission*, 16 CA. REG. L. REP. 158, 159 (1999) (specifically examining the experiences of the California Public Utilities Commission).

63. Pierce, *supra* note 10, at 40.

64. *Id.*

65. *Id.*

66. *Id.*

Both state and regional restructuring of the electric utility industry have incorporated versions of the ISO.⁶⁷ While these restructuring efforts that employ ISOs incorporate practical design elements, they are based on theoretical models.⁶⁸ Many states have chosen to install various forms of transmission organizations that include ISOs, Power Exchanges (PXs), or organizations that combine functions of both.⁶⁹ The Desert Southwest Transmission and Reliability Operator (Desert STAR) presents an interesting new design that requires further examination. The Desert STAR is an Independent Scheduling Administrator (ISA), also known as an "ISO lite."⁷⁰ Ohio is one of a few states with two competing ISOs, the Alliance⁷¹ and the Midwest ISO.⁷²

Given the variety of options, the kind of transmission organizations states will implement is unclear. Moreover, how many states will have transmission organizations designated by state, such as California, remains unclear.⁷³ Most ISOs seem to be regional, such as the Pennsylvania-Jersey-Maryland (PJM) Interconnection, Alliance ISO, and Midwest ISO.⁷⁴ The trend is toward regional transmission organizations, and the FERC is promoting that option.⁷⁵ Still, the Florida's PSC has urged the FERC not to impose a one-size-fits-all approach to transmission organization design.⁷⁶ The FERC appears inclined to follow the Florida PSC's advice, and Florida will soon need to give its attention to developing its own transmission organization design.

A number of countries adopted some form of the ISO when they restructured their electric utility industries, including Great Britain,

67. For a valuable and comprehensive exploration of the governance of four power pools outside the United States, see James Barker et al., *Regulation of Power Pools and System Operators: An International Comparison*, 18 ENERGY L.J. 261 (1997).

68. See J.P. Pfeifenberger et al., *In What Shape is Your ISO?*, ELECTRICITY J., July 1998, at 80-81.

69. See Robert J. Michaels, *The Governance of Transmission Operators*, 20 ENERGY L.J. 233, 246-249 (1999).

70. K.R. Saline & Associates, *Desert STAR Update (May-June 1998)* (visited June 21, 1999) <<http://www.swrta.org/desert.html>>. The Desert STAR appears to represent Arizona, New Mexico, Texas, and Las Vegas. See *id.*

71. The Alliance ISO includes American Electric Power, Consumers Energy, Detroit Edison, First Energy Corp., and the Virginia Electric and Power Company, and First Energy Corp. (Ohio). See generally U.S. Energy Information Administration, *Summary Information on Approved and Planned Independent System Operators as of March 31, 1998* (visited Apr. 1, 2000) <http://www.eia.doe.gov/cneaf/electricity/chg_str_issu/chg_iss_rpt/table15.html> (table presenting information on approved and planned ISOs).

72. The Midwest ISO includes Ohio companies Cinergy, Commonwealth Edison, Illinois Power, CILCO, and Louisville Gas and Electric. Midwest ISO serves Illinois, Indiana, Kentucky, Maryland, Michigan, Missouri, Ohio, Pennsylvania, Virginia, West Virginia, and Wisconsin. See *id.*

73. See *id.*

74. See *id.*

75. See *infra* Part II.D.2.

76. See RTO NOPR, *supra* note 7, at 31,411.

Norway, New Zealand, Argentina, and Chile.⁷⁷ Most relevant to the United States is the design of Canadian systems.⁷⁸ Ontario, which is connected with Michigan, New York, and Minnesota, designed its transmission system around an independent "grid company."⁷⁹ Alberta, which is connected with the Northwest, has already restructured its electricity market by creating a grid company, "Alberta Gridco," that administers a single transmission facility.⁸⁰ Under the Alberta Gridco structure, transmission-owning utilities have no control over the rates and conditions that are governed by the provincial utility board.⁸¹

2. *FERC Explores Transmission Organization Options*

The ISO serves as the fulcrum upon which a market regime can be established for the electric utility industry. Order 888 did not focus on the special problems of restructuring the transmission segment of the industry, but Order 888 does encourage ISOs.⁸² While not mandating the use of ISOs, Order 888 suggests that a restructuring proposal be facilitated through the FERC's regulatory machinery if authority over transmission was delegated to some form of ISO.⁸³ While Order 888 did not prescribe a particular form for the management function of electric utilities, it did provide eleven principles that provide guidance.⁸⁴

77. See Pierce, *supra* note 10, at 40.

78. The FERC's open access regulation has been resisted by some Canadian utilities. See Mary K. Strahan, Comment: *Connecting Currents: Toward the Integration of North American Electricity Markets*, 21 HOUS. J. INT'L L. 291, 311 (1999).

79. ADVISORY COMMITTEE ON COMPETITION IN ONTARIO'S ELECTRICITY SYSTEM, A FRAMEWORK FOR COMPETITION: THE REPORT OF THE ADVISORY COMMITTEE ON COMPETITION IN ONTARIO'S ELECTRICITY SYSTEM TO THE ONTARIO MINISTER OF ENVIRONMENT AND ENERGY 53 (1996).

80. TransAlta Enterprises Corp., 75 FERC ¶ 61,268, at 61,875 (1996).

81. See *id.*

82. See Order 888, *supra* note 3, at 21,565.

83. See *id.* at 21,595.

84. See *id.* at 21,595-97. Briefly those principles are:

1. Fair and non-discriminatory governance
2. no conflicts of interest
3. "[a] single, unbundled, grid-wide tariff [rates and other conditions] that applies to all eligible users in a non-discriminatory manner;"
4. responsibility for assuring reliability
5. control over interconnection
6. promote efficient trading of electricity
7. establish incentives for efficient management
8. non-discriminatory provision of ancillary services
9. assure that information is publicly available
10. coordinate among grids; and
11. establish alternative dispute resolution processes.

The FERC recognized the need to move transmission development from the "traditional means of grid management" to a second stage in which information about ISOs' actual operation will emerge and certain crucial issues, previously bypassed, will be confronted.⁸⁵ To achieve this goal, the FERC issued a notice of proposed rulemaking (NOPR) regarding transmission organizations.⁸⁶ The NOPR stated:

Our objective is for all transmission owning entities in the Nation, including non-public utility entities, to place their transmission facilities under the control of appropriate regional transmission institutions in a timely manner. We seek to accomplish our objective by encouraging voluntary participation. We are therefore proposing in this rulemaking minimum characteristics and functions for appropriate regional transmission institutions; a collaborative process by which public utilities and non-public utilities that own, operate or control interstate transmission facilities, in consultation with the state officials as appropriate, will consider and develop regional transmission institutions; a willingness to consider incentive pricing on a case-specific basis and an offer of non-monetary regulatory benefits, such as deference in dispute resolution, reduced or eliminated codes of conduct, and streamlined filing and approval procedures; and a time line for public utilities to make appropriate filings with the Commission and initiate operation of regional transmission institutions. As a result, we expect jurisdictional utilities to form Regional Transmission Organizations (RTOs).⁸⁷

These objectives raise a deceptively contentious list of issues, not the least of which is the encouragement of "Regional Transmission Organizations,"⁸⁸ which implies that the transmission systems will operate on a regional basis rather than a state basis. The recommendation of using Regional Transmission Organizations portends a power struggle between the FERC and state regulators that may also involve state legislatures.

Equally controversial is the NOPR's apparent indifference to "transcos," which are private systems operators and not-for-profit ISOs. Because systems managers will be able to capture or distribute substantial benefits from their dominant position, many academics and regulators fear delegating the power to control transmission organizations to a commercial entity and, hence, advocate the commercial independence of not-for-profit ISOs.⁸⁹ Others have faith that pri-

85. RTO NOPR, *supra* note 7, at 31,391.

86. *See id.* at 31,390.

87. *Id.* at 31,391.

88. *Id.*

89. *See* William L. Massey, *Policy on Regional Transmission Organizations: Five Pitfalls FERC Must Avoid*, *ELECTRICITY J.*, Mar. 1999, at 18-19.

vate ownership will offer the most efficient and reliable transmission services.⁹⁰

Although immediate attention will be given to the regional and commercial aspects of the transmission organization, the governance and process alternatives will also be crucial to the ultimate success of any redesign of the transmission organization. Such issues as stakeholder governance, participation in policymaking, processes for setting standards, and individual dispute resolution procedures must be resolved in any transmission organization design.

III. REGIONAL APPROACH

The FERC's regional transmission organization NOPR, while continuing the theme of voluntary participation from Order 888, boldly states: "we expect jurisdictional utilities to form Regional Transmission Organizations (RTOs)." ⁹¹ The FERC's expectation of regional transmission organizations (RTOs) creates conflict between the traditional roles of the FERC and state regulators. The FERC's current delegation of authority, as it has been historically interpreted, limits the FERC's authority to the interstate and wholesale segments of the electric utility industry, while states traditionally have had authority over the retail delivery function of the industry.⁹² A shift to RTOs compromises both the FERC's and the state regulator's traditional realms of authority.

The transmission system was partitioned along state lines to take advantage of state regulation.⁹³ Today, technology permits high voltage current to be efficiently transmitted up to 1,000 miles from the point of generation, and the transmission lines are interconnected to form a national grid for electrical power.⁹⁴ The interconnection of transmission lines was created so that various systems could support each other, but this goal has been hindered by the very limited capacity of transmission lines.⁹⁵ Despite the limited capacity of transmission lines, the electricity market has been regional not local.⁹⁶

At present, both state and regional transmission organizations exist or are being developed. State-centered operating transmission organizations exist in California and Texas, and the FERC has condi-

90. *See id.* at 19.

91. RTO NOPR, *supra* note 7, at 31,391.

92. *See* 42 U.S.C. § 7172 (1994).

93. *See* STEPHEN G. BREYER & PAUL W. MACAVOY, *ENERGY REGULATION BY THE FEDERAL POWER COMMISSION* 91 (Brookings Inst. ed. 1974); *Public Util. Comm'n of Rhode Island v. Attleboro Steam & Electricity Co.*, 273 U.S. 83, 89 (1927) (electricity sold across state lines was held to be interstate commerce and under federal jurisdiction).

94. *See* Black & Pierce, *supra* note 19, at 1345.

95. *See id.*

96. *See id.*

tionally approved one in New York.⁹⁷ Additionally, Arizona and Nevada have begun the process for approval of state-centered transmission organizations.⁹⁸ In contrast, several RTOs are in operation or in various stages of development.⁹⁹ Therefore, the FERC should instigate a debate over the optimum geographic configuration for transmission organizations.¹⁰⁰ The FERC's tardiness in facilitating this debate will likely be blamed for the high cost incurred from the delay in implementing RTOs.¹⁰¹

A. *Reasons for a Regional Approach*

The FERC presumes that regional organizations are superior, and the FERC's NOPR listed five major benefits of RTOs, each benefit with several substantial subpoints.¹⁰² These benefits of RTOs support three arguments: (1) regional organization offers the most efficient market; (2) regional organization enables self-regulation in which government regulators withdraw to a position of monitoring the private regulation; and (3) regional organization enhances the growth and reliability of the electricity market.¹⁰³ Reconfiguring the industry into a few large, RTOs will create an efficient market.¹⁰⁴ As explained above, electricity does not actually flow from the generator plant to the purchaser of that generator plant's production; rather the generator plants add their electricity into the flow, and the purchaser draws electricity from the flow.¹⁰⁵

Resulting from the fiction of the contract flow, that the consumed electricity is the same as the electricity for which the consumer contracts, any price for transmission is artificial. Due to the contract path, transmission charges have been based on the distance the electricity *travels* from the assigned source.¹⁰⁶ A large RTO makes realistic transmission charges possible, and the total charges can reflect operating costs, including salaries to employees and managers, investment returns, and incentives.¹⁰⁷ The RTO facilitates uniform charges so all RTO customers cover their share of the costs of opera-

97. See Massey, *supra* note 89, at 15.

98. See *id.*

99. See U.S. Energy Information Administration, *supra* note 71.

100. The Commission acknowledges that it has recognized the benefits of regional organization for some time. See RTO NOPR, *supra* note 7, at 31,407.

101. See Richard J. Pierce, Jr., *Why FERC Must Mandate Efficiently Structured Regional ISOs-Now!*, *ELECTRICITY J.*, Jan. 1999, at 54.

102. See RTO NOPR, *supra* note 7, at 31,407-11.

103. See *id.*

104. See Pierce, *supra* note 101, at 51.

105. See *supra* Part II.A.

106. See Pierce, *supra* note 101, at 50.

107. See *id.* at 50-52. See generally RTO NOPR, *supra* note 7, at 31,407-11 (discussing the benefits of RTOs).

tion and transmission.¹⁰⁸ The unified operation can figure the capacity of the entire system and allocate capacity to avoid congestion.¹⁰⁹ This system encourages charges to represent actual costs, cuts transaction costs, and encourages necessary investment. A unified pricing system encourages competition by creating trust in the system.¹¹⁰ In sum, the major market advantage of the RTO is that it creates uniform and tradable units of electricity.¹¹¹ Natural forces, without the artificiality of government ratemaking, will therefore set rates.¹¹²

A major obstacle to competition is entrenched opportunities for former utilities to maintain their dominance through a system of affiliates. Hence RTOs, especially if commercially independent as discussed below, must make objective decisions and, perhaps more importantly, must be perceived by stakeholders as making objective decisions.¹¹³ Due to this objective decision-making, many regulatory-type decisions can be left in the RTOs' hands. Administering a transmission system requires extremely high performance standards, and industry members are in a better position to set those standards than federal or state regulators.¹¹⁴ The RTO can make uniform standards for a large portion of the electric utility industry. The FERC anticipates that its direct regulatory duties will diminish with the development of RTOs. Similarly, the FERC perceives that a trusted RTO will provide individual dispute resolution services without involving the federal government.¹¹⁵ Thus, the FERC's role will shift to monitoring the performance of the self-regulatory RTO much like the relationship among the SEC and the large securities exchanges.

The trust between RTOs and stakeholders will also enhance the growth and reliability of RTOs. Investors in RTOs will know that their investment will not be compromised by discriminatory self-dealing by insiders.¹¹⁶ Reliability will also be increased by RTOs superiority in planning for future needs and meeting those needs due to the more comprehensive view the RTO is positioned to take.¹¹⁷

B. Authority for Mandating a Regional Approach

Nonetheless, the RTO presents a tremendous source of tension as evidenced in the FERC's consultation with the states that unsur-

108. See Pierce, *supra* note 101, at 50-52.

109. See *id.*

110. See *id.*

111. See *id.*

112. See *id.*

113. See *infra* Part III.B.

114. See Pierce, *supra* note 101, 49-50.

115. See RTO NOPR, *supra* note 7, at 31,410.

116. See Massey, *supra* note 89, at 15.

117. See *id.*

prisingly revealed substantial opposition to RTOs.¹¹⁸ The creation of RTOs intrudes upon traditional areas of state power and well-entrenched state regulatory authorities. Moreover, opposition came from the existing electric utilities. They have traditionally exercised substantial influence over state regulators, and may not be able to wield the same influence over RTOs where the utilities' interest will compete with those of consumers and independent generator plants, as well as with other RTO owners.¹¹⁹

The FERC, in the NOPR, sought cooperation from the states in shifting to a national system of a few RTOs.¹²⁰ Indeed, the only way for a market-driven electric utility industry to be successful is for the FERC to design a system of RTOs. Therefore, the FERC should be assertive in exercising its authority to design such a system. The two recent major restructuring bills grant the FERC authority to create RTOs in recognition of the need for the FERC's leadership on this issue.¹²¹

Even without the recent bills, the FERC's authority to design a system of RTOs under existing legislation is undisputed. The FERC timidly asserts its authority to mandate RTOs, citing particularly its authority under Section 202(a) of the Federal Power Act (FPA).¹²² Section 202(a) of the FPA states that "the Commission is empowered and directed to divide the country into regional districts"¹²³ A superficial ambiguity is created by the phrase "for the voluntary interconnection and coordination of facilities."¹²⁴ However, the voluntariness refers to the coordination in the RTO and not to the power of the FERC to create such authorities.¹²⁵

Key to deriving the FERC's authority to design a system of RTOs from section 202(a) is the section's explicit delegation of authority to make policy. The final command of section 202(a) delegates to the FERC the responsibility to make decisions regarding electric utility policy and to implement these decisions. Section 202(a) sets the goal of "assuring an abundant supply of electric energy throughout the United States with the greatest possible economy and with regard to the proper utilization and conservation of natural resources."¹²⁶ Sec-

118. See RTO NOPR, *supra* note 7, at 31,411 ("Most states oppose a FERC mandate to form RTOs.").

119. See *id.* at 31,390.

120. See *id.* at 31,391.

121. See H.R. 1828, 106th Cong. (1999); S. 1047, 106th Cong. (1999); Electric Consumers' Power to Choose Act of 1999, H.R. 2050, 106th Cong.

122. See RTO NOPR, *supra* note 7, at 31,391.

123. 16 U.S.C. § 824a. (a) (1994).

124. *Id.*

125. See Pierce, *supra* note 101, at 55.

126. 16 U.S.C. § 824a. (a) (1994).

tion 202(a), thus, provides ample authority to support the conclusion that the nation's transmission system must operate through RTOs.¹²⁷

A long and well-established principle of administrative law extends great deference to an agency charged with policymaking responsibility.¹²⁸ This long-standing principle was confirmed in the celebrated opinion of *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.*¹²⁹ When challenging an agency's construction of a statutory provision involving its own duties, Justice Stevens concluded the agency interpretation must prevail where the question "really centers on the wisdom of the agency's policy, rather than whether it is a reasonable choice within a gap left open by Congress."¹³⁰ Such policymaking discretion has long been recognized under the FPA.¹³¹ Applying the conclusions of Justice Stevens and the recognition of discretion from the FPA, the FERC's implementation of a policy that favors RTOs would be within the FERC's policymaking responsibility and a reasonable exercise of the FERC's authority.

However, a bold assertion of the FERC's authority may be tempered by the U.S. Supreme Court's recent inclination to protect state sovereignty.¹³² The Court's strongest protection of state sovereignty occurred in *Printz v. United States*¹³³ in which county sheriffs sought to enjoin enforcement of the provision of the Brady Handgun Violence Prevention Act that imposed enforcement responsibilities on the county sheriffs.¹³⁴ The Court's commitment to protecting state sovereignty is poignantly illustrated by the following statement: "It is the very *principal* of separate state sovereignty that such a law of-

127. Section 210, granting the FERC authority over interconnection, supplements its authority under section 202(a). Section 210 expands its authority to require new interconnections, see 16 U.S.C. § 824i. (a)(1)(A), and authorizes "such action as may be necessary to make effective any physical connection . . . [that] is ineffective for any reason." 16 U.S.C. § 824i. (a)(1)(B) (emphasis added).

128. See generally 3 CHARLES H. KOCH, JR., ADMINISTRATIVE LAW AND PRACTICE, § 12.31 (2d. ed. 1997) (discussing policymaking as the "zenith" of administrative authority).

129. 467 U.S. 837 (1984).

130. *Id.* at 866.

131. Deference to the FERC's policymaking discretion, from the FPC, was established in the classic statement of Judge Leventhal: "[W]e observe that the breadth of agency discretion is, if anything, at zenith when the action assailed relates primarily . . . to the fashioning of policies . . ." *Niagara Mohawk Power Corp. v. Federal Power Comm'n*, 379 F.2d 153, 159 (D.C. Cir. 1967). Although an intermediate appellate court opinion, Judge Leventhal's statement became one of the most venerated expressions of this principle.

132. See *Alden v. Maine*, 119 S.Ct. 2240, 2246 (1999) (holding that states may not be sued in their own courts by state employees for violations of the Fair Labor Standards Act); *Florida Prepaid v. College Savings Bank*, 119 S.Ct. 2199, 2202 (1999) (holding that states are immune from patent infringement suits); *College Savings Bank v. Florida Prepaid*, 119 S.Ct. 2219, 2220 (1999) (holding that states are immune from trademark suits).

133. 521 U.S. 898 (1997).

134. See *id.* at 901.

fends, and no comparative assessment of the various interests can overcome that fundamental defect."¹³⁵

Still, control over the transmission of electricity is not an inherent component of state sovereignty. The Court in *Printz* expressly distinguished a case, *FERC v. Mississippi*,¹³⁶ involving a similar state sovereignty challenge to the FERC's exercising regulatory authority over the states.¹³⁷ In *FERC v. Mississippi*, the Court "upheld the statutory provision at issue precisely because . . . [it] merely imposed preconditions to continued state regulation of an otherwise preempted field."¹³⁸ In reviewing the regulatory actions of the FERC's predecessor, the FPC, the Court found, in the *Permian Basin Area Rate Cases*,¹³⁹ that the FPC "must be free, within the limitations imposed by pertinent constitutional and statutory commands, to devise methods of regulation capable of equitably reconciling diverse and conflicting interests."¹⁴⁰

Traditionally, the electric utility industry and, specifically, the transmission segment of the industry have been considered interstate commerce, and as a consequence, the state's regulatory authority over the industry derives purely from congressional delegation.¹⁴¹ If the FERC chooses to exercise its authority over wholesale transmission in a manner that diminishes state regulatory authority, the states' challenge to the FERC's actions cannot be based on the principle of state sovereignty.¹⁴² In fact, if the FERC finds with adequate support that RTOs are preferable to an individualized state system, a reviewing court would overstep its authority by second-guessing a policy choice that is within the FERC's discretion and based on its expertise.

135. *Id.* at 932.

136. 456 U.S. 742 (1982).

137. See 521 U.S. at 929 (distinguishing *FERC*, 456 U.S. at 761-62).

138. 456 U.S. at 761-62.

139. 390 U.S. 747 (1968).

140. *Id.* at 767.

141. See 16 U.S.C. § 824 a. (a) (1994).

142. On the other hand, the Eighth Circuit accepted the argument that the FERC regulation that indirectly affects state jurisdiction is unauthorized. See *Northern States Power Co. v. FERC*, 176 F.3d 1090, 1096 (8th Cir. 1999) ("[T]he indirect effect of Order No. 888 . . . has transgressed its Congressional authority which limits its jurisdiction to interstate transactions."). The FERC, however, is correct that national regulation will often necessarily indirectly affect state options and, hence, that effect alone cannot be allowed to interfere with the exercise of the FERC interstate authority. The Eighth Circuit also impermissibly substituted its policy judgment. If found best for the national electricity grid, mandated regionalization of bulk transmission operation will be within the FERC's delegated authority no matter how it affects state authority over retail operations.

IV. CONTROL OF THE TRANSMISSION ORGANIZATION

All transmission organization proposals are based on the theme of independence that arises in three distinct ways. First, the whole deregulation and restructuring effort is motivated by the desire to be independent from state and federal government regulators.¹⁴³ Second, many transmission organization proposals offer designs that are independent from the pitfalls of commercial allures such as discrimination and self-dealing.¹⁴⁴ In fact, the FERC's list of minimum characteristics provides that "The RTO Must be Independent of Market Participants."¹⁴⁵ Third, other proposals offer a transmission organization that is independent from the other segments of the electric utility industry.¹⁴⁶ In deciding which transmission organization design is best, all three independence concerns must be evaluated.

As discussed above, the dominant vision for the design of the transmission organization revolves around an independent authority that is insulated from commercial forces.¹⁴⁷ As more proposals are put forward, some designers are now suggesting that the transmission organization, as well as the generation and distribution/marketing segments, could be structured as a for-profit entity. Since the nomenclature for these models are still unsettled, "transco" will designate a for-profit transmission organization model, and ISO (independent system operator) will designate a not-for-profit model. Both models are explicated and evaluated below.

A. *Transco: The For-Profit Transmission Organization Model*1. *The Transco Concept*

Prior to restructuring, transmission grids were owned and managed by private utilities, referred to as investor-owned utilities (IOUs), that provided the transmission facilities and the ancillary services necessary to transmit electricity.¹⁴⁸ IOUs are vertically-

143. See U.S. Energy Information Administration, *Factors Underlying the Restructuring of the Electric Power Industry* (visited Apr. 1, 2000) <http://www.eia.doe.gov/cneaf/electricity/chg_str/chapter5.html>.

144. See Massey, *supra* note 89, at 15.

145. RTO NOPR, *supra* note 7, at 31,414.

146. See Massey, *supra* note 89, at 14.

147. See RTO NOPR, *supra* note 6, at 31,414.

148. Ancillary services or *interconnection operation services* are necessary to support the transmission operation. The FERC proposed six ancillary services: "(1) scheduling and dispatching services, (2) load following service, (3) energy imbalance service, (4) system protection service, (5) reactive power/voltage control service, and (6) loss compensation service." Order 888, *supra* note 3, at 21,579. One commentator observed: "Discussions of specific ISOs can be confusing at this stage because the range of services that grid operators provide or manage can be disaggregated or decomposed in different ways, depending

integrated business entities that owned not only the transmission segments of the electric utility industry, but also the generation and marketing/distribution segments.¹⁴⁹ IOUs provided capital, made decisions about investment, and took risks for future development, and thereby assured the reliability of the system.¹⁵⁰ IOUs generally did a complicated job well.

Restructuring of the industry requires a fundamental decision: should the vertically-integrated IOUs divest themselves of the generation and marketing/distribution segments. The FERC, in Order 888, concluded that "functional unbundling" would be sufficient.¹⁵¹ Functional unbundling requires that the utilities separate the different segments of their operation, make interaction among the segments open to the public, and open transmission access to competitors of the utilities' former affiliates.¹⁵²

The transco structure would transfer the transmission operation over to a for-profit firm that would both own and operate the transmission organization.¹⁵³ The transco structure would differ from the ISO in that the for-profit firm would own, operate, and *manage* the transmission facilities.¹⁵⁴ Whereas an ISO would independently manage the transmission wires without interference from commercial interests, the transco would manage and operate transmission wires for profit while remaining structurally independent from the generator plants and marketers/distributors.¹⁵⁵ The transco conforms to functional unbundling but allows the utilities to continue to own the wires and compete in other segments of the industry through affiliates.¹⁵⁶

Transco proponents urge that the profit motive will lead to an efficient management of the transmission wires.¹⁵⁷ Further, transco proponents doubt that not-for-profit ISO managers will operate under

in part on the overall structure of the [future transmission organization]." FOX-PENNER, *supra* note 25, at 202.

149. See U.S. Energy Information Administration, *Electric Power Generation Components* (visited Apr. 1, 2000) <http://www.eia.doe.gov/cneaf/electricity/chg_str/chapter3.html>.

150. Indeed, this Author has observed that the electric utility industry consistently receives high marks from consumers.

151. Order 888, *supra* note 3, at 21,552 ("In the absence of evidence that functional unbundling will not work, we are not prepared to adopt a more costly mechanism—corporate unbundling [i.e. divestiture]—at this time.").

152. See *id.*

153. Commissioner Herbert is the leading proponent inside the Commission. See Curt L. Herbert, Jr., *Moving the RTO Debate*, *ELECTRICITY J.*, Mar. 1999, 20.

154. See RTO NOPR, *supra* note 7, at 31,396 ("[T]he preference of certain transmission owners to sell or transfer their transmission assets to a for-profit transmission company in lieu of handing over control to a non-profit ISO" has made it difficult to form voluntary, multi-state ISOs.).

155. See *id.*

156. See *id.*

157. See Herbert, *supra* note 153, at 22.

an incentive system that will result in an efficient and reliable delivery of transmission services.¹⁵⁸ The for-profit transco, which is subject to market forces, is expected by proponents to provide optimum transmission services, in the same manner as the other for-profit segments of the restructured industry are expected to optimize their functions.¹⁵⁹

2. *Transco Will Continue Entrenched Market Power*

Transmission organizations will be regional monopolies, and opponents of the transco model fear a single for-profit entity having control over the transmission segment absent any natural forces to prevent an abuse of this dominant position.¹⁶⁰ This concern is exacerbated by the incomplete separation between transcos and affiliates that permits the owners of transmission wires to unfairly advantage their partners in other segments of the electric utility industry.¹⁶¹

Recent economic theory provides that even the power of a monopoly can be constrained if the monopoly's market is "contestable."¹⁶² Contestable markets are those dominated by a single firm, but where "different firms may compete to be the single supplier."¹⁶³ Contestability, however, cannot bring market forces to bear on a monopoly in the absence of potential entry by competitors.¹⁶⁴ Entry by competitors into a regional transmission area will be virtually impossible because transcos "may draw narrow boundaries" that "achieve control over key gateways of transmission commerce;" thus, the general conditions for contestability are not present.¹⁶⁵ Transcos, as a result, will be able to exercise their dominance in the market without any restraints. The very nature of the industry's transmission segment and the continuing commitment to and need for regulation under the transco model leads to the conclusion that contestability will not eliminate or even modify the exercise of monopoly power by transco entities.¹⁶⁶

158. *See id.*

159. *See id.*

160. *See Massey, supra* note 89, at 16.

161. *See Pierce, supra* note 101, at 50.

162. WILLIAM J. BAUMOL ET AL., *CONTESTABLE MARKETS AND THE THEORY OF INDUSTRY STRUCTURE* 6-7 (Rev. ed. 1988).

163. HIRSHLEIFER & HIRSHLEIFER, *supra* note 15, at 242.

164. "[W]e have presented several examples in which some or all of the feasible price vectors available to the monopolist are unsustainable in the absence of entry barriers. However, we have also shown that while the pressure of potential entry can, in some circumstances, lead to instability in the market place, it is also a potent force extending the benefits of Adam Smith's 'invisible hand' to monopoly markets." *Id.* at 217.

165. *Massey, supra* note 89, at 16.

166. *See generally* HIRSHLEIFER & HIRSHLEIFER, *supra* note 15, at 242. In the context of the transmission industry, the competition stage will have been completed, leaving the transcos in the dominant position.

The "weak invisible hand" of contestability may operate to constrain the exercise of monopolistic power when entry is possible, but competition in the transmission segment through duplicate transmission wires is highly implausible.¹⁶⁷ Still, competition among different grids might occur if transco entities take extreme advantage of their market positions.¹⁶⁸ As the FERC observed: "Many power sales and transmission service contracts are written under the assumption that the power delivered will flow on a particular contract path However, this assumption often does not accurately reflect what actually occurs . . . [as] some power may flow over the lines of adjoining transmission systems."¹⁶⁹ The presence of *parallel paths* suggests that alternative paths might actually exist. Nevertheless, the number of these paths is currently very limited, and a situation in which competing transcos will offer such alternative paths to neighboring transcos is unlikely.¹⁷⁰ Availability of parallel paths will be virtually eliminated by the shift to large RTOs in which only those customers at the border of the region could switch to such a parallel path.¹⁷¹ Few purchasers of electricity are sophisticated enough to take advantage of these alternatives even if the alternatives were available; thus, parallel paths will remain a hidden reliability alternative.

In sum, transcos will have total market power within their regions, and this market power will be enhanced as the generation and distribution/marketing segments become more competitive in supplying transmission services.¹⁷² Purchasers of transmission services, either generators or distributors/consumers, will compete with each other for transmission rights, and these purchasers will become more vulnerable to transco operations as a result. Purchasers, dependent on transcos for transmission services, will be unable to pursue strategies to counterbalance the transcos' market power.¹⁷³

The exploitation of this market power makes it unlikely that the transco model will enhance planning for future needs, which is the

167. The theory's developers warn, for example: "[W]here entry costs are present, the nonsustainability of natural monopoly means that a monopoly cannot find prices that permit it to earn rent equal to the entry costs and prevent wasteful entry simultaneously. But that does not preclude the possibility that a natural monopoly can find prices that yield a slightly lower rent and leave it invulnerable to entry. In such a case, despite the unsustainability, the threat of entry may still force the monopoly to behave better than it otherwise would have." BAUMOLE ET AL., *supra* note 162, at 221.

168. See Joshua Rokach, *Transcos: How FERC Can Lend a Hand*, *ELECTRICITY J.*, Jan./Feb. 1999, at 68.

169. RTO NOPR, *supra* note 7, at 31,424.

170. See *id.*

171. See Rokach, *supra* note 167, at 68.

172. See Massey, *supra* note 89, at 16.

173. See Pierce, *supra* note 10, at 50 ("Ordinarily, a highly concentrated buyer market reduces concerns about potential exercised of market power by sellers because buyers then have strategies available that render exercise of market power more difficult.").

chief advantage touted by transco advocates.¹⁷⁴ Commissioner Herbert, for example, asserted simply: "It is not clear that a non-profit ISO will be able to perform the functions required to build new transmission. In the end, if we [the for-profit sector] do not build it, the electrons will not come."¹⁷⁵ Herbert's proposition is inconsistent with the traditional vision of monopolist behavior.¹⁷⁶ Indeed, the Federal Trade Commission's economists in a recent opposition to a proposed transco asserted: "As a general proposition, a for-profit Transco may have incentives to perpetuate transmission congestion."¹⁷⁷ The creation of congestion can result in a lower supply of transmission capacity and higher profits for the transco.¹⁷⁸

Accordingly, a transco can be expected to create scarcity in transmission capacity, rather than to expand it. Monopolists manage to charge higher prices than firms in competitive industries by controlling the quantity of service or product supplied, rather than by simply raising prices.¹⁷⁹ The transco model will not result in natural pressures to meet growing demand, but will result in monopolistic efforts to take advantage of that growth by limiting transmission capacity in order to reap a greater profit. Perpetuation of this transco monopoly would, therefore, artificially create both higher prices and lower capacity, resulting in a net social welfare loss.

Similarly, the ISO model will not find inherent incentives for expansion of capacity, and special planning devices may be required to achieve this goal. The ISO model, however, does not have a similar profit incentive of the transco model to increase congestion and scarcity of transmission capacity. Recognizing this dilemma, at least subconsciously, the transco advocates offer traditional regulatory solutions such as capital investment incentives.¹⁸⁰ Capital investment incentives are merely subsidies traditionally found in regulatory regimes. This incentive rate approach is simply regression to old-

174. See Herbert, *supra* note 153, at 22.

175. *Id.* at 21.

176. See sources cited at *supra* note 15 (discussing monopolies).

177. Comment of the Staff of the Bureau of Economics of the Federal Trade Commission, In the Matter of Energy Services, Inc. Doc. # EL 99-57-000 (May 27, 1999).

178. See *id.*

179. While a monopolist might be said to choose a price and hence accept a quantity, most consistent with actual behavior is the view that the monopolist controls the quantity in order to set the price. See HIRSHLEIFER & HIRSHLEIFER, *supra* note 15, at 226. This behavior has been observed at least since Adam Smith's first articulation of the free market theory. See ADAM SMITH, AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS 147-48 (Modern Library 1937).

180. Compare the view of the two FERC Commissioners: Herbert, *supra* note 153, at 20 ("The case for incentive rates . . . is more compelling than ever."); Massey, *supra* note 89, at 13, 17 ("First, and fundamental to this debate, is the question of whether it is necessary to dispense FERC candy to achieve our pro-competitive goals . . . [W]ill the candy treat we give out be so great that they overshadow or even eliminate the consumer benefits that could result from our grid regionalization policies?") (emphasis added).

fashioned regulatory thinking,¹⁸¹ and is antithetical to creating a market-driven industry.¹⁸²

The transco model will continue the old "regulatory compact" whereby it, like its predecessor IOUs, will be expected by government regulators to perform in the public interest in exchange for a dominant market position. The impact of such a massive consolidation of market power in one for-profit entity is one of the many fears expressed by its opponents.¹⁸³ Many transco critics fear that transcos, as former IOUs, will use their dominant market power and ability to create transmission congestion to benefit their "affiliates," who are typically their former IOU partners operating the generation and distribution/marketing segments of the industry.¹⁸⁴ The genesis of this concern is the FERC's choice of "functional unbundling" rather than divestiture or "corporate unbundling."¹⁸⁵ As long as a continued corporate identity exists among the major entities in what should be truly competitive and distinct segments of the electricity market, discrimination and under-the-table deals among affiliates will be difficult to prevent.¹⁸⁶ Any adoption of the transco model must mandate a strict separation among the transco and other participants in the electricity market.¹⁸⁷

The FERC would allow a deviation from strict corporate segregation of one percent, which means that market participants could own one percent of the transco, but potential transco owners can be expected to negotiate for higher allowable percentages of ownership.¹⁸⁸ For example, securities laws allow a tolerance of five percent ownership before the SEC assumes control of the situation. Even a percentage of control as low as one percent raises potential problems, however, because it grants market participants' access to the transco's decisionmaking process.¹⁸⁹

181. The famous Averch-Johnson analysis suggests that regulators must accurately set rates at the true cost of capital or else regulated monopolies will overinvest. See Averch & Johnson, *supra* note 32. But see BREYER & MACAVOY, *supra* note 93, at 108 (positing that Averch-Johnson analysis "does not readily apply to electricity production."). The Averch-Johnson analysis seems unavoidable where regulators intentionally offer bonus rates for capital expenditures.

182. In the natural gas industry, incentives paved the way for new pipelines. See Robert Michaels & Arthur De Vany, *Market-Based Rates for Interstate Pipelines: The Relevant Market and the Real Market*, 16 ENERGY L.J. 299 (1995). In the natural gas industry, the market precludes any seller from exercising market power. Several factors suggest that such a preclusion does not exist in the electric utility industry. See Pierce, *supra* note 10, at 46.

183. See Massey, *supra* note 89, at 16.

184. See *id.*

185. See Order 888, *supra* note 3, at 21,552.

186. See *id.*

187. See *id.*

188. See RTO NOPR, *supra* note 7, at 31,415.

189. See *id.*

Regardless, separation will be insufficient to offset the transco's market power. Unfortunately, discrimination is just one way for a transco to exercise its market power. The idea that a firm can only exercise market power once is axiomatic.¹⁹⁰ A firm may use its market power to favor one part of its operation, say one in a competitive industry, or a firm can reap the benefits directly. However, a firm does not increase its market power by diffusing among its various units. Discrimination, however, may be used to avoid detection of the exercise of market power, and rate regulation may provide a strong incentive to engage in such practices.¹⁹¹

Ultimately, policy must focus on the market power conferred on transcos and not on how they might use it. The transcos will have substantial market power. Since market forces do not exist to temper transcos' market power, regulation is the only alternative to the current system.

3. *The Transco Model Will Preclude Independence from Regulation*

The transco model assumes continued regulation of the transmission segment.¹⁹² The restructured electric utility industry would foster competition in the generation and distribution/marketing segments, but transmission rates would still require regulation because each transco will be a regional monopoly.¹⁹³ Arguably, the old partnership between utilities and regulators will be the best structure for the transmission segment since this regime's performance has been at a minimum satisfactory to the majority of consumers.¹⁹⁴ Still, the old regulatory regime offends the current desire for independence from government involvement in the industry.

Seeing their direct regulatory authority diminishing, regulators advocate an industry model necessarily committed to traditional regulation.¹⁹⁵ Explaining regulators' proposals through a public choice model would be facile. As Commissioner Bailey observed: "It's hard for a regulator not to regulate."¹⁹⁶ Unsurprisingly, Commis-

190. See George J. Stigler, *United States v. Loew's Inc.: A Note on Block-Booking*, in 1963 SUP. CT. REV. 152 (Philip B. Kurkland ed.); Alan Meese, *Tying Meets the New Institutional Economics: Farewell to the Chimera of Forcing*, 146 U. PA. L. REV. 1, 23 (1997).

191. See FREDERICK R. WARREN-BOULTON, *VERTICAL CONTROL OF MARKETS: BUSINESS AND LABOR PRACTICES*, 40-41 (1978).

192. See Vicky A. Bailey, *Reassessing the Role of Regulators of Competitive Energy Markets, or: Walking the Walk of Competition*, 20 ENERGY L.J. 1, 10 (1999) (After expressing indifference between the transco and ISO models, Commissioner Bailey observed: "Transco alternatives to not-for-profit ISOs should lack vertical integration and will continue to be regulated as public utilities by the FERC."); see also Rokach, *supra* note 167, at 65 (concurring with Bailey's observation).

193. See Massey, *supra* note 89, at 16.

194. As observed by this Author.

195. See Herbert, *supra* note 153, at 20; Rokach, *supra* note 167, at 64.

196. Bailey, *supra* note 191, at 1.

sioner Bailey's colleagues and their staff are drawn to the transco approach that necessarily continues a core of regulatory authority.¹⁹⁷

Giving its proponents the benefit of the doubt, the transco model can honestly be seen as furthering a strong national commitment to private ownership and control.¹⁹⁸ In addition, the transco model appears less risky because it perpetuates government control over this segment of the electric utility industry. Even though the transco will be privately owned and operated, the model nevertheless requires government regulation, which will disappoint advocates of pure deregulation.

B. ISO: Not-For-Profit Transmission Organizations

Until recently, a system built around various forms of grid manager entities has dominated the transmission design debate. A special type of ISO, known as independent system managers, has been proposed and adopted.¹⁹⁹ In this scheme, the ISO directs and manages transmission, but does not own or operate the facilities and is thus unaffected by commercial pressure. The FERC continues to provide that "the principle of independence is the bedrock upon which the ISO must be built."²⁰⁰ The conditions for independence require a separation of ISO decision-makers and employees from market participants.²⁰¹ The advantage of the ISO model over the transco model is that the ISO has a direct duty to function for the benefit of all market participants and, ultimately, for the benefit of consumers.²⁰² Because the ISO is not driven by a profit motive, the ISO will not require regulation to prevent an abuse of its dominant market position.

Separating the grid manager from economic forces also has drawbacks. The core drawback involves removal of the profit based incentive structure. The system cannot depend on market forces to ensure that transmission wires deliver optimum service. Since ISOs will be insulated from the direct operation of market forces, they will require an entirely different set of incentives than the profit incentive driving transcos, as well as some form of direct monitoring by a regulatory entity.²⁰³ Thus, a design must be developed that will motivate

197. See Herbert, *supra* note 153, at 20; Rokach, *supra* note 167, at 64.

198. See Herbert, *supra* note 153, at 20; Rokach, *supra* note 167, at 64.

199. See U.S. Energy Information Administration, *supra* note 71.

200. RTO NOPR, *supra* note 7, at 31,414 (quoting Atlantic City Elec. Co., *et al.*, 77 FERC ¶¶ 61,148, 61,574 (1996)). The FERC noted an agreement from the Department of Energy Reliability Task Force that concluded the transmission organization must be: "truly independent of commercial interests so that their reliability actions are—and are seen to be—unbiased and untainted." *Id.* at 31,414 n.186.

201. See *id.* at 31,414.

202. See Order 888, *supra* note 3, at 21,596.

203. See Herbert, *supra* note 153, at 22 ("Through performance based regulation, FERC can provide incentives for maximum efficiency of operation . . .").

ISO managers, in the absence of market forces, to optimize the use of transmission facilities.

Designing such an incentive structure for ISO managers presents the greatest challenge to implementing the ISO model. Market incentives are overwhelmingly preferable to the alternatives, which have either failed or fallen short of expectations.²⁰⁴ Efficiency incentives may be the plausible alternative to market incentives and may be the key to implementing a successful ISO.²⁰⁵

The choice between for-profit transcos and not-for-profit ISOs has hinged on which alternative offers the best opportunity for future reliability of the transmission system. The ISO model is preferable to the transco model because the for-profit transco can be expected to resist expansion of its transmission capacity in an attempt to increase profitability,²⁰⁶ whereas the ISO will not resist expansion.²⁰⁷ Since ISO managers are not self-interested and will not inhibit expansion of transmission capacity, the key is to prescribe incentives for ISO managers to promote future reliability.²⁰⁸ Designing incentives that encourage ISO managers to engage in the proper level of expansion will be particularly challenging.

An additional complication is inherent in the ISO model's dependency on ISO managers to devise incentives for private, for-profit firms to invest in infrastructure and build for the future. ISOs are essentially management organizations and must implement reliability plans by encouraging capital commitment, and unless an ISO has the tools to encourage future investment, capacity will be endangered.²⁰⁹ In turn, if the ISO creates investment incentives allowing private transmission companies to profit from investment, the ISO must ensure that the investment incentives do not grant rights to the private transmission companies that encourage the bottleneck phenomenon of decreasing transmission capacity to increase profits. Thus, the provision of profit incentives to private investors by ISOs could result in the same supply problems presented by the transco model. ISOs appear to ensure reliability, but devising proper incentives that encourage investment remain problematic.

204. See Pierce, *supra* note 101, at 50.

205. See *id.*

206. See *supra* Part III.A.2.

207. See Pierce, *supra* note 101, at 51.

208. See *id.* at 52.

209. Potential solutions to this task have been developed. See William Hogan, *Contract Networks for Electric Power Transmission*, 4 J. REG. ECON. 211 (1992); James B. Bushnell & Steven E. Stoft, *Electric Grid Investment Under a Contract Network Regime*, 10 J. REG. ECON. 61 (1996). The solutions might be summarized as involving credits for relieving congestions or some form of *transmission congestion credit*.

V. GOVERNANCE OF THE TRANSMISSION ORGANIZATION

Electricity is central to our modern society, and governance of the electric utilities' core segment, the transmission organization, is crucial to the effectiveness and public approval of a restructured industry. Well-designed governance mechanisms will guard against the exploitation of transmission's dominant position in the electric utility industry. However, governance mechanisms have more than a disciplinary role. Because electricity is so pervasive in modern society, public involvement in transmission operations is imperative for public satisfaction with the restructured industry. Yet neither the fear of transmission's dominant market position, nor the need for broad participation can be allowed to encumber the transmission organizations' ability to deliver adequate electric service. The design of governance structures will require a careful balance between openness of process and necessary restraints on the one hand, and efficient management and operational freedom on the other.

A. Governance Mechanisms

Design of the governance mechanisms must reflect the fundamental role electricity plays in everyone's life in the United States. In some way, individual interests must be represented in the transmission organization's decisionmaking process, but individual interests cannot be represented in a homogeneous manner. Finding the proper vehicle for representing a wide spectrum of interests must be the overarching goal of governance design. Governance of the transmission organization will, of course, be affected by the choice between the transco and ISO models. The choice might involve both a practical and a normative judgment as to whether control, but not necessarily ownership, of the transmission facilities should be vested in "shareholders" or "stakeholders."²¹⁰

A transco will primarily be a reconfiguration of the traditional Investor Owned Utility (IOU), and control will remain in the hands of the shareholders, owners or investors.²¹¹ Managers in a transco will have a duty to maximize profits for the shareholders. In contrast, the ISO is an independent organization with a duty to all of its stakeholders. The governing process of the ISO must reflect the large and diverse group that is affected by the ISO's actions. Given the dominant position of the transmission segment, a transco governance

210. The FERC uses the term "stakeholder" interchangeably with "market participant," to mean any entity that buys or sells electricity who might be affected by the RTO's actions. See RTO NOPR, *supra* note 7, at 31,414 n.187. In this article, the term "stakeholder" is used to include all those who have a stake in the proper operation of the electric utility industry, including ultimate consumers.

211. See *supra* Part III.A.

structure should likewise include more open and broad participation than the archetypical corporate governance structure. Yet, even with openness and participation, the transco model will require pervasive external monitoring.²¹²

Whereas adoption of the transco model commits to the tradition of self-interested management and government oversight, the ISO model requires careful innovation in governance design. Because public interest decision-making is expected in the ISO model, conflicts of interest are a much greater concern.²¹³ Self-interested decisions will be expected and appropriately monitored in the transco model, but the ISO will be expected to act for the greater good of the entire system and, due to the lack of monitoring, will present many more opportunities for clandestine self-dealing.²¹⁴

Division of power is the dominant strategy for dealing with conflicts of interests and abuses by managers. For example, the PJM regional transmission organization has a "board of managers" that governs two component sections: a "members committee" and the "Office of the Interconnection."²¹⁵ In a similar commitment to divided power, the FERC envisions a governing board of "non-stakeholders," which the FERC terms "non-market participants."²¹⁶ The FERC provides that "[t]he non-stakeholder board would be the ultimate decision making authority, though it could choose to delegate decisions to its staff or committees of stakeholders."²¹⁷ By dividing power and forcing transparency of decisionmaking, self-interested decisions should be extremely difficult.

Expressing concern that the non-stakeholder board fails to grasp the practical problems faced by market participants, the FERC requested comments on whether stakeholders should be represented on that governing board.²¹⁸ The FERC's non-stakeholder category does not encompass the diversity of interests that must be addressed in any electric utility governance structure.²¹⁹ No other industry has such a broad array of discrete interests as does the electric utility industry, which includes market participants, non-market participants, and various government institutions. Each of these groups is comprised of subgroups with distinct interests and goals.²²⁰ These

212. See Massey, *supra* note 89, at 16.

213. See Michaels, *supra* note 69, at 234.

214. See *id.*

215. PJM Interconnection, L.L.C., *Amended and Restated Operating Agreement of the PJM Interconnection, L.L.C.*, § 7.7(i)-(xv), 14-16 (1997) (visited Jan. 20, 2000) <<http://www.pjm.com/index.html>>.

216. See RTO NOPR, *supra* note 7, at 31,415.

217. *Id.*

218. See *id.*

219. See *id.*

220. See Pierce, *supra* note 101, at 51 (discussing large stakeholder boards as "structurally flawed").

subgroups are only facially united by the overarching goal of having the industry function efficiently.

Thus, one readily apparent design defect is the forced compilation of too many groups into one governing body. The ISO design should examine European government operations that often include external committees with real power. The European Union's (EU's) organic laws establish, for example, two representative committees, a committee representing "various categories of economic and social activity," and a committee representing "regional and local bodies."²²¹ These committees "must be consulted" by the government institutions,²²² and although the law only requires consultation, these committees do have practical power. The EU's governing bodies also delegate "legislative"²²³ authority to "management committees."²²⁴ Some of these committees are consultative only, but some are "regulatory committees," who have real formal power. Any measure issued by these governing bodies cannot take effect until it receives a favorable opinion from the management committees.

Instead of attempting to provide representation for these numerous groups of diverse interests on one or two governing boards, ISO governance should formally disperse power among committees consisting of various categories of interests.²²⁵ A consumer committee, for example, will present a united consumer perspective²²⁶ that any governing body must consider. Certain specialized committees could have special powers of approval for decisions involving the committees' areas of expertise. A pure delegation of authority and power to specialized committees might be dangerous, while an open process of consultation with specialized committees could provide effective representation of all stakeholders.²²⁷

Still, one governing body must have final decisionmaking authority, and a broad representation of interests on that body is crucial. The New York Stock Exchange (NYSE) alleviated a similar representation problem by creating a board of directors consisting of equal

221. TREATY ESTABLISHING THE EUROPEAN COMMUNITY, arts. 193, 198a, Feb. 7, 1992, O.J. (C 224) 1 (1992), [1992] 1. C.M.L.R. 573 (1992).

222. See *id.* art. 198.

223. See *id.* art. 198c.

224. See GEORGE A. BERMAN ET AL., CASES AND MATERIALS ON EUROPEAN COMMUNITY LAW 60-63 (1993).

225. This opinion is informed by personal experience with student representation in law school governance. Over many years, this Author has observed that students are better represented by their own committees, which report to a faculty committee, rather than by representation on the faculty committee in which they are generally overwhelmed or co-opted.

226. Consumers are themselves a diverse group, including big industrials, smaller businesses, residentials, and disadvantaged consumers.

227. The FERC noted problems with delegation at least to market participant committees. See RTO NOPR, *supra* note 7, at 31,415 n.190.

numbers of public and industry directors. The NYSE's constitution designates which groups the public directors should represent.²²⁸ A similar structure may be effective in the electric utility industry. A separate nominating committee that generally reflects the representation on the board nominates the NYSE board members. This separate nominating committee, while not totally insulating the process from manipulation, at least opens the process to public scrutiny.

B. Regulatory Aspects of Transmission Organizations

The Department of Justice aptly characterized the ISO as a self-regulatory organization (SRO) that is comparable to a stock exchange.²²⁹ The extensive experience of the securities industry SROs, particularly the NYSE and the National Association of Stock Dealers (NASD), should provide some insight into private regulatory operations. The SRO regulatory strategy is to allow the industry to police itself. The government agency's role is to monitor the SRO.²³⁰ The SROs have the advantage of understanding the industry and balancing effective regulation with its practical needs. The SROs' commitment to effective regulation is ensured by the threat that governmental entities will resume regulation if the SROs' performance proves inadequate. The ISO model will allow the electric utility industry to employ the SRO strategy. The ISO would establish policies, set standards, conduct compliance operations, and provide enforcement dispute resolution processes.²³¹ The FERC would monitor the ISOs to ensure that they fairly and effectively perform their regulatory responsibilities.²³²

In contrast, the transco choice requires direct regulation because its governing body will have a fiduciary duty to its shareholders to maximize its profit.²³³ That duty constrains the transco manager's power to make public interest motivated decisions. Thus to ensure social welfare, regulators must be directly involved in overseeing transco management decisions rather than assuming a monitoring role as prescribed under the ISO model.²³⁴ Still, the transco might be designed to be more sensitive to interests other than those of its shareholders. An alternative, for example, might be to delegate special legislative authority with the directive to include certain public interest considerations in transco decisionmaking. While the transco

228. See NEW YORK STOCK EXCHANGE, INC., CONSTITUTION AND RULES ¶ 1152 (1998).

229. See Antitrust Div., U.S. Dept. of Justice, Comments in Response to the FERC NOPR (1995).

230. In the context of securities, the monitoring government agencies are the Securities and Exchange Commission and the Commodities Future Trading Commission.

231. See Order 888, *supra* note 3, at 21,595-97.

232. See *id.*

233. See Michaels, *supra* note 69, at 233.

234. See Herbert, *supra* note 153, at 22.

manager's business judgment might undervalue public interest considerations, transcos will be forced to justify choices on public interest grounds and will be criticized for choices inimical to that interest.²³⁵ To enforce this policy, legislation might even allow some type of formal *utlra vires* challenge to specifically designated transco management decisions.

C. Process for Policy-Making in Transmission Organizations

In addition to the independence of the ultimate decisionmaking authority, the process of formulating transmission organization policy and setting standards must be open and must facilitate participation by interested parties. As with government agencies, transmission organizations will exercise quasi-legislative authority through its promulgation of rules.²³⁶ Federal and state agencies are required to use "notice and comment" procedures to promulgate rules with binding effect.²³⁷ The rulemaking process has four general requirements: notice, an opportunity for comments, a statement justifying the rule, and publication.²³⁸ The notice and comment procedures create an extremely effective method for openness, participation, and information gathering.²³⁹

However, the shift to a non-governmental entity, such as an ISO, may cause abandonment of the standard procedure for governmental rulemaking. The NYSE's constitution delegates rulemaking authority to its board, but does not mandate a participatory process.²⁴⁰ Existing ISOs also do not require such procedures.²⁴¹ The FERC's own

235. See *id.* (discussing transcos promotion of reliability, efficiency, coordination, and investment).

236. Delegations to private entities have been accepted, but are not without critics. See *Railway Labor Executive's Ass'n v. Burnley*, 839 F.2d 575, 590 (9th Cir. 1988) (holding that the Secretary of Transportation could delegate drug testing authority to the railroads), *rev'd on other grounds*, 489 U.S. 602 (1989). For instance, the Secretary of Agriculture may issue *marketing orders* governing the amount of a commodity that growers can produce and market. The Secretary generally offers to amend a marketing order to include any terms favored by some super-majority, often 75%, of the growers. In *Sequoia Orange Co. v. Yeutter*, 985 F.2d 1419 (9th Cir. 1993), the court decided that the Secretary's practice was not an unconstitutional delegation of power to private persons. Neil Kinkopf considered the effect of separation of powers on congressional delegation to nonfederal authorities. See Neil Kinkopf, *Of Devolution, Privatization, and Globalization: Separation of Powers Limits on Congressional Authority to Assign Federal Power to Non-Federal Actors*, 50 RUTGERS L. REV. 331, 355 (1998) ("[T]he same general separation of powers principles applies to all nonfederal actors; there is not a peculiar principle that applies to states as opposed to private parties . . .").

237. See 1 KOCH, *supra* note 128, §§ 4.32 & 4.33 (2d. ed. 1997).

238. See *id.* §§ 4.32, 4.33, 4.45, & 4.46.

239. See *id.* §§ 4.32 & 4.33.

240. See NEW YORK STOCK EXCHANGE, INC., *supra* note 227, at ¶ 1351.

241. But see *Bylaws of the California Independent System Operator Corporation and the California ISO Open Meeting Policy adopted April 23, 1998* (visited June 29, 1999)

rules should require public access to the rulemaking processes of transmission organizations. The FERC should employ its own experience with notice and comment requirements to provide guidance to transmission organizations on developing open processes.

The key to the fairness and effectiveness of informal rulemaking is the adequacy of notice. The electric utility industry has established a sophisticated electronic network system that could be used to provide effective electronic notice. The Open Access Same-time Information System (OASIS) will provide interested parties with real notice, as opposed to the publication of notice in the federal register.²⁴² Using only electronic notice, however, may be insufficient because the general public will not be monitoring systems such as OASIS.

Electronic technology may also enhance participation in the comment process. One study shows that agencies that offer the opportunity to comment in electronic form receive far greater numbers of comments.²⁴³ Moreover, a process whereby comments are submitted in electronic form enables use of computerized organization and search capabilities. Electronic capacity and storage, therefore, will mitigate one of the most difficult problems in rulemaking: the management of a lengthy and complex record.²⁴⁴

Transmission organizations should also employ negotiated rulemaking as it is applied in federal administrative law. Negotiated rulemaking facilitates the development of rules by interested parties.²⁴⁵ Ultimately, the negotiated rule will still be presented for public comment so that those excluded from the negotiation will have an opportunity to contribute.²⁴⁶ ISOs, even more than government agencies, should use negotiation to effectively incorporate all the key interests in setting policy and standards with a minimum of formal procedures.

Negotiated rulemaking is an established element in federal administrative law.²⁴⁷ When interested people are brought together and develop a rule, the process is more efficient, effective, and sensitive to

<http://www.caiso.com/pubinfo/corpdoc/> (describing a procedure similar to notice and comment rulemaking).

242. See Order 889, *supra* note 3, established OASIS, which provides transmission users with information about transmission capacity and prices. Since it will, by necessity, be the core information source for participants, it might well be adapted to operational communications, including requests for comments.

243. See Peter Strauss, "The Challenges of Globally Accessible Process," George Ber- man, Matthias Hegeden, & Peter Lindseth, *Transatlantic Regulatory Cooperation* (forthcoming 2000) (manuscript on file with authors).

244. See 1 KOCH, *supra* note 128, § 4.44.

245. See *id.* § 4.36.

246. See *id.*

247. Between 1983 and 1996, approximately 36 final rules have been negotiated by 17 agencies. See Cary Coglianese, *Assessing Consensus: The Promise and Performance of Negotiated Rulemaking*, 46 DUKE L.J. 1255, 1274 (1997).

all interests. Many commentators have promoted negotiated rulemaking as a cure for many of the problems with government rulemaking.²⁴⁸ Though initially viewed merely as an experiment to promote negotiated rulemaking, the Negotiated Rulemaking Act of 1990²⁴⁹ has encouraged use of the process by many federal agencies. The experience of these agencies with negotiated rulemaking may assist in the development of such processes by transmission organizations.²⁵⁰

Many theoretical and practical problems with negotiated rules exist such as which parties to include in the negotiations. This and other problems raise general questions about negotiated rulemaking,²⁵¹ but by anticipating these possible pitfalls, they can be avoided while developing a negotiation process for transmission organizations. The nature of the transmission organization itself will greatly affect the process. It will not so much participate as a party, as a government agency does in negotiated rulemaking, but more as a mediator attempting to work out an agreement among the stakeholders. Thus, negotiation processes should be one of the alternative procedures available in transmission organization policy-making and standard setting.

Government regulators will monitor policymaking by transmission organizations, as they do with other SROs, but courts must also

248. See Conference, *Harvard Electricity Policy Group: Regulatory Decisionmaking Reform*, 8 ADMIN. L.J. 789, 875 (1995) (Professor Michael Asimow stating: "[Negotiated rulemaking] is the policymaking idea of the 21st Century."); Philip J. Harter, *Negotiating Regulations: A Cure for Malaise*, 71 GEO. L.J. 1, 112 (1982); Henry H. Perritt, Jr., *Negotiated Rulemaking Before Federal Agencies: Evaluation of Recommendations by the Administrative Conference of the United States*, 74 GEO. L.J. 1625, 1717 (1986); DAVID M. PRITZKER, ADMINISTRATIVE CONFERENCE OF THE UNITED STATES, & DEBORAH S. DALTON, ENVIRONMENTAL PROTECTION AGENCY, *NEGOTIATED RULEMAKING SOURCEBOOK* (1990). An Administrative Conference study strongly urged the use of negotiated rules in many selected situations. See Recommendations of the Administrative Conference of the U.S., Procedures for Negotiating Proposed Regulations, Recommendation No. 82-4, 47 Fed. Reg. 30708 (1982) (codified at 1 C.F.R. part 305, but relevant of chapter 1 C.F.R., ch. III, entirely removed in 1996). An executive study also recommended negotiated rulemaking. See NATIONAL PERFORMANCE REVIEW, IMPROVING REGULATORY SYSTEMS: ACCOMPANYING REPORT OF THE NATIONAL PERFORMANCE REVIEW 30 (1993); Executive Order 12866, § 6 (a), 3 C.F.R. 1993 Comp. 638, 644. Congress ultimately agreed and passed the Negotiated Rulemaking Act of 1990, 5 U.S.C. §§ 561-570.

249. See 5 U.S.C. §§ 561-570 (1994). The act empowers the head of an agency to create a rulemaking committee to negotiate a rule if the agency head determines that such a procedure would be "in the public interest." See 5 U.S.C. § 563(a). The agency may use a "convenor" to help identify those who might serve on a rulemaking committee and to frame the issues for negotiation, see 5 U.S.C. § 563(b), and a "facilitator" chairs the meetings, see 5 U.S.C. § 566(d). The agency may use the committee report as the basis for a proposed rule, following ordinary notice and comment procedures. In general, the Act establishes a "consultative process in advance of the more formal arms' length procedure of notice and comment rulemaking." *USA Group Loan Servs., Inc. v. Riley*, 82 F.3d 708, 715 (7th Cir. 1996).

250. See ADMINISTRATIVE CONFERENCE OF THE UNITED STATES, *BUILDING CONSENSUS IN AGENCY RULEMAKING: IMPLEMENTING THE NEGOTIATED RULEMAKING ACT* (1995).

251. See 1 KOCH, *supra* note 128, § 4.36.

have a role. Appropriately defined judicial review will contribute to the policy dialogue and add political legitimacy to the decisions of the transmission organization.²⁵² Such legitimacy is imperative for an industry that affects every citizen. The key is to carefully define a judicial role in transmission organization policymaking that takes advantage of its monitoring and legitimizing functions while still enabling the process to benefit from the expertise and efficiencies of transmission organization governance.²⁵³ Accordingly, the judicial presence should be well defined and minimal.²⁵⁴ Unless experience dictates otherwise, judicial review should be confined to decisions made by government monitors of transmission organization policymaking.

VI. INDIVIDUAL DISPUTE RESOLUTION

The market approach to the electric utility industry will raise a variety of individual disputes that were not problematic under the private management and regulatory regime. Because the industry was vertically integrated, most decisions were handled as part of internal management. As the industry becomes more functionally and structurally unbundled, categories of these management decisions become private disputes. Private, governmental, or judicial dispute resolution, therefore, will become a key factor in both the cost-effectiveness and the appearance of fairness of the restructured industry. The FERC should take a leadership role in the formulation and implementation of dispute resolution procedures for transmission organizations and the industry.

A. *The Need for Individual Dispute Resolution*

Since these disputes are private, they might be resolved within the ordinary judicial process; however, the creation of a massive new body of litigation could be avoided through implementation of alternative dispute resolution processes (ADR). In Order 888's eleven principles, the FERC recommends including ADR procedures in all transmission organization design.²⁵⁵ The appropriateness of ADR in a transmission organization is affected by the choice between for-profit and not-for-profit entities. The transcos will be active participants with a clear interest in the resolution of many disputes, and the

252. See Jim Rossi, *Redeeming Judicial Review: The Hard Look Doctrine and Federal Regulatory Efforts to Restructure the Electric Utility Industry*, 1994 WIS. L. REV. 763, 826 (1994) (noting that the limited review authorized by "[t]he hard look doctrine, properly applied, contributes to the political conversation between governmental branches, enhances deliberative democratic decisionmaking and contributes to legitimacy").

253. See *id.* at 823-24.

254. See *id.* at 823-25.

255. See Order 888, *supra* note 3, at 21,597.

transcos will often be one of the parties in the disputes. Thus, avoiding conflicts of interest militates against transcos managing the dispute resolution process. ISOs, on the other hand, are by definition independent third parties and could appropriately operate a dispute resolution process for the benefit of the market participants. Alleged misconduct by the ISO itself will in any event be presented to regulatory authorities or to the judiciary.

Government regulatory authorities could also provide the ADR process as an alternative or supplement to private processes. As the system moves inexorably towards regional transmission organizations, the FERC becomes the only feasible government institution to provide ADR services. A FERC administered ADR service would be particularly appropriate for transcos. The legitimacy of the FERC providing the mechanism for resolving private disputes arising directly from electricity transmission is unquestionable. In *Commodity Futures Trading Commission v. Schor*,²⁵⁶ the U.S. Supreme Court even allowed the agency's dispute resolution service to resolve "a narrow class of common law claims as an incident to the [agency's] primary, and unchallenged, adjudicative function."²⁵⁷ Nonetheless, the FERC's observation is accurate that "[i]t is generally more efficient for these organizations to resolve many disputes internally rather than bringing every dispute to the Commission."²⁵⁸

The transmission organization could rely on existing arbitration and mediation mechanisms.²⁵⁹ Existing ISO arrangements incorporate arbitration and mediation devices.²⁶⁰ Arbitration can be successful for the transco, as well as for the ISO model. Contracts made between either variety of transmission organization and other market participants should require that disputes be taken to an independent dispute resolution authority. Thus, ADR will be appropriate even when the transco itself is a party to the dispute. Compulsory arbitration has been consistently upheld.²⁶¹ The Supreme Court in *Gilmer v. Interstate/Johnson Lane Corp.*,²⁶² held that an individual employee who had signed an arbitration agreement as part of his application for registration with the NYSE was bound to arbitrate.²⁶³ The Court

256. 478 U.S. 833 (1986).

257. *Id.* at 854.

258. RTO NOPR, *supra* note 7, at 31,410.

259. See Arbitration Act, 9 U.S.C. §§ 1-307 (1994); Administrative Procedure Technical Amendments Act of 1991, 5 U.S.C. §§ 571-583 (1994).

260. See PJM Interconnection, L.L.C., *PJM Open Access Transmission Tariff*, § 12.3 (visited Jan. 20, 2000) <<http://www.pjm.com/index.html>>.

261. See *Shearson/American Express, Inc. v. McMahon*, 482 U.S. 220, 238-39 (1987).

262. 500 U.S. 20 (1991).

263. See *id.* at 26.

rejected the argument that arbitration is procedurally and substantively inadequate.²⁶⁴

The FERC, nonetheless, should adhere to its original principle that "[a]n ISO should establish an ADR process to resolve disputes in the first instance."²⁶⁵ Existing ISOs or their equivalent have established their own dispute resolution processes. For example, the by-laws of the California ISO require that "to the extent practicable, reasonable and permitted by law," dispute resolution procedures should be included in each contract.²⁶⁶ The PJM regional transmission organization has a fairly elaborate process and has established an Alternative Dispute Resolution Committee to deal with conflicts.²⁶⁷

Procedures for electric utility ADR should be uniquely designed to handle disputes replete with a wide range of expert opinions regarding engineering, finance, and industry specific practices.²⁶⁸ ADR in the United States, unlike ADR in other countries, employs generalist judges and a single procedural form. However, disputes in the electric utility industry will require specialist decisionmakers and tailored processes.²⁶⁹ The rejection of regulation does not mean that one should ignore the consistent finding of administrative law that traditional judicial practice must be modified under many administrative conditions.

B. FERC's Contribution to Transmission Organization ADR

1. FERC Must Assure Procedural Adequacy

The best dispute resolution option is probably the one provided by an independent transmission organization. Still, the FERC has ultimate responsibility for ensuring that the procedures will be adequate.²⁷⁰ Courts are not inclined to second-guess private procedural design, but the FERC's scrutiny should be thorough.

264. See *id.* at 27-32.

265. Order 888, *supra* note 3, at 21,597.

266. California Electricity Oversight Board decision 97-01-01, Appendix A, Article IV, § 5.

267. See PJM Interconnection, L.L.C., *Alternative Dispute Resolution Committee* (visited April 1, 2000), <<http://www.pjm.com/index.html>>.

268. To this end, the PJM Alternative Dispute Resolution Committee has the power to craft procedures. See PJM Interconnection, L.L.C., *PJM Revised Operating Agreement of September 3, 1999, Schedule 5*, § 5.5(vii) (visited Jan. 20, 2000) <<http://www.pjm.com/index.html>>.

269. See Stanley W. Hulett, *Restructuring the Electrical Utility Industry*, 53 DISP. RESOL. J. 26, 27 (1998).

270. In 1998, Congress sought to improve ADR generally by enacting the Alternative Dispute Resolution Act of 1998, Pub. L. No. 105-315, 112 Stat. 2993 (1998).

Procedural due process might apply to transmission organization adjudications. First, these adjudications are so intertwined with government authorization that they may constitute "state action."²⁷¹ Since *Silver v. New York Stock Exchange*,²⁷² a SRO's procedures have been subject to review, if not under due process, then under some fundamental notion of fairness.²⁷³ But procedural due process has long been understood as a flexible concept amendable to practical considerations.²⁷⁴

Because reasonable ADR designs will be accepted when justified by the circumstances, the FERC should actively participate in developing procedural ADR designs. The experience from both due process jurisprudence and administrative law is vast and should be carefully examined in developing designs tailored to the various adjudicative tasks arising from the restructured electric utility industry. Moreover, actual experience with such dispute resolution is growing within the industry and is well developed in other SRO contexts.

The RTO NOPR seeks comment on the types of issues that would be appropriate for ISO dispute resolution.²⁷⁵ The FERC should follow this line of inquiry further, take steps to develop categories of disputes that will arise in the restructured electric utility industry, and encourage uniform procedures tailored to each category. For example, electricity operations will generate disputes about the failure to perform, compensation for coverage of such failures by the transmission organization, unfair practices, disciplinary actions against certain market participants, claims of violation of open access principles, and implementation of curtailment priorities. Each of these issues should generate carefully crafted procedures for uniform use in all the transmission regions. The FERC should add its own specialized experience in electricity adjudications to the formation of procedural ADR designs.

The FERC should lead the search for innovative procedural ADR approaches. Many of the disputes will demand very expeditious and cost-conscious processes. The FERC and its practitioners have considerable experience with written hearings and, especially in disputes involving expert considerations, the FERC should apply its ex-

271. A private entity may have a sufficient relationship with the state to convert action by its employees into state action. See *Milo v. Cushing Mun. Hosp.*, 861 F.2d 1194, 1196 (10th Cir. 1988). However, the fact that a private entity is highly regulated by the federal government does not suffice to bring it within the meaning of "state action." See *Jesinger v. Nevada Fed. Credit Union*, 24 F.3d 1127, 1132 (9th Cir. 1994).

272. 373 U.S. 341 (1963).

273. See *id.* at 364 ("Congress in effecting a scheme of self-regulation designed to insure fair dealing cannot be thought to have sanctioned and protected self-regulative activity when carried out in a fundamentally unfair manner.").

274. See *Mathews v. Eldridge*, 424 U.S. 319, 334 (1976); *Cafeteria & Restaurant Workers Union Local, 473 v. McElroy*, 367 U.S. 886, 895 (1961).

275. See RTO NOPR, *supra* note 7, at 31,410.

perience to procedural ADR design.²⁷⁶ Off-site technology should also be examined since the growing comfort with technology has led to the acceptance of telephone hearings or interactive video hearings. In the busy world of the restructured electric utility industry, such alternatives to face-to-face confrontation may be preferable to the parties involved in disputes.

2. *FERC Should Promote a Specialized Presiding Official Pool*

The FERC should facilitate the development of a national pool of electricity adjudicators. Judge Friendly, in his seminal work on administrative procedures, observed that an impartial decisionmaker is the most essential element to fair adjudications.²⁷⁷ The FERC should focus on ensuring the availability of competent, impartial, and expert adjudicators.

Central panels comprised of administrative presiding officials have been created in nearly half of the states.²⁷⁸ The central panel is administrated by an independent agency that provides presiding officials to agencies. The presiding officials have the advantage of independence from the agencies and thereby create both the appearance and the reality of impartiality. This independence from the parties, even from the agency, also allows for the management of presiding officials without compromising their impartiality.

The FERC should also facilitate the establishment of an independent national panel of judges, specializing in electricity issues, to whom transmission organizations may request hearing of their disputes. As with states' central panels of administrative officials, this pool of specialized 'electricity' judges will be independent of the transmission organizations and market participants. Indeed, if the transco model is adopted, this appearance of independence will be crucial. At present, the default approach seems to be reliance on a general pool of arbitrators who lack specialized knowledge of the electric utility industry. While the default approach might ensure independence, it cannot ensure the type of expertise necessary to adjudicate many of the disputes that will develop in the restructured electric utility industry. A panel of judges specializing in electricity issues could ensure expertise by imposing qualifying standards and continuing education.

This national panel of judges should be independent of the FERC. While the FERC should take the necessary steps to establish an electricity panel, the FERC should then allow the panel to operate as an

276. See Hulett, *supra* note 268, at 26.

277. See Henry J. Friendly, *Some Kind of Hearing*, 123 U. PA. L. REV. 1267, 1279 (1975).

278. See 2 KOCH, *supra* note 128, § 5.24(7).

independent private organization. The federal government could fund and establish standards for the panel. Alternatively, the panel could also easily be funded from fees assessed to the transmission organizations, and a panel governing board could establish its own management and performance standards.

The U.S. Supreme Court in *Schweiker v. McClure*²⁷⁹ found that a government-sponsored system employing private adjudicators did not violate due process.²⁸⁰ In this case involving reimbursement under Medicare,²⁸¹ the claimant charged that presiding officials were not impartial because the insurance companies had hired them.²⁸² In the absence of direct evidence showing partiality, the Court refused to infer bias from the fact that private judges were technically employees of the insurance companies.²⁸³ Further, the Court rejected the argument that government adjudication was necessary for due process.²⁸⁴ Thus, a panel of electricity judges would be a legitimate solution to the need for independent, expert presiding officials.²⁸⁵

C. Review of Law and Policy in an Electricity Dispute Resolution System

The independence of dispute resolutions, whether by private arbitration or special panels, might threaten presiding officers' faithfulness to both the law and transmission organization policy in individual application. Some review of individual decisions, therefore, must be available. A key to successful performance of the dispute resolution process within the larger system will depend on a clear articulation of review responsibilities. Three review authorities will operate in the system: transmission organization governing body review, government agency review, and judicial review.

1. Administrative Review of Individual Dispute Resolutions

As discussed above, the transmission organizations will generate a body of policy decisions and standards. The independent operation of a dispute resolution process may threaten the uniform application

279. 456 U.S. 188 (1982).

280. See *id.* at 200; see also *Thomas v. Union Carbide Agric. Prods. Co.*, 473 U.S. 568, 571 (1985) (concluding that Article III of the Constitution does not prohibit "[c]ongress from selecting binding arbitration with only limited judicial review as the mechanism for resolving disputes among participants in FIFRA's [Federal Insecticide, Fungicide, and Rodenticide Act] pesticide registration scheme").

281. See 456 U.S. at 189-90.

282. See *id.* at 192-93.

283. See *id.* at 195.

284. See *id.* at 198.

285. Delegation of adjudicatory authority to a private entity is constitutional. See Kinkopf, *supra* note 234, at 396.

of these policies.²⁸⁶ In addition, disappointed parties in the dispute resolution process will want a second review.

Existing transmission organizations' arrangements call for administrative review by the FERC or relevant state authorities.²⁸⁷ Appeal to these government authorities can certainly ensure adherence to tariffs and other agreements between the transmission organizations and the government authorities. The government authorities could also develop administrative review processes that would check unfairness or discrimination.

However, the transmission organization itself might provide such review.²⁸⁸ The transmission organization can best determine faithful adherence to its policies and standards. Moreover, internal self-correction will further eliminate the need for government involvement in the transmission process. As the experience in government agencies indicates, dealing with individual cases will sharpen the governing authorities' policymaking and standard setting.

2. *Judicial Review of Individual Dispute Resolutions*

The court's role in electricity dispute resolutions must be carefully circumscribed. The judicial process will often be inappropriate for the resolution of these disputes. Yet judicial involvement cannot be totally precluded; the courts must ensure compliance with the laws. Currently, the law accommodates a limited judicial role in dispute resolutions. Judicial review of arbitrators' decisions is limited to ensuring that those decisions comport with the law and documents authorizing the arbitration.²⁸⁹ Generally, courts do not review the merits of an arbitration award.²⁹⁰

The Supreme Court in *Thomas v. Union Carbide Agricultural Products Co.*²⁹¹ determined that in establishing an arbitration process administered by a federal agency, Congress could severely limit judicial review.²⁹² Judicial review was available in that program only for "fraud, misrepresentation, or other misconduct."²⁹³ The Court concluded that the arbitration scheme did not contravene Article III of the Constitution.²⁹⁴ Even though manufacturers' claims under the

286. See 2 KOCH, *supra* note 128, § 5.28.

287. See PJM Interconnection, L.L.C., *PJM Revised Operating Agreement of September 3, 1999, Schedule 5*, § 4.14 (visited Jan. 20, 2000) <<http://www.pjm.com/index.html>>; *California ISO Tariff*, § 13.4.3.2 (visited Jan. 20, 2000) <<http://www.caiso.com/pubinfo/tariffs/>>.

288. Disciplinary adjudications of the NYSE may be reviewed by its board of directors. See NEW YORK STOCK EXCHANGE, INC.: CONSTITUTION AND RULES, § 1406 (1998).

289. See *Kar Nut Prods. Co. v. Int'l Bd. of Teamsters Local 337*, 798 F. Supp. 1303, 1306 (E.D. Mich. 1992).

290. See *Marion Mfg. Co. v. Long*, 588 F.2d 538, 540 (6th Cir. 1978).

291. 473 U.S. 568 (1985).

292. See *id.* at 571.

293. *Id.* at 573-74.

294. See *id.* at 589.

Federal Insecticide, Fungicide, and Rodenticide Act had some aspects of "private rights" for which judicial protection is required, the Court concluded that these issues were not "purely" private rights and hence Congress could provide for arbitration.²⁹⁵ Likewise, the issues in electricity dispute resolution will not be purely private rights and, hence, limits on judicial review should be found acceptable.

Thus, judicial review can be limited in any transmission organization dispute resolution regime either by agreement or delegation. The key is properly defining those limits. In general, judicial review should be limited to questions of law and assertion of jurisdiction by the transmission organization's ADR authority.

VII. CONCLUSION

Design of the electricity transmission organization is, in fact, the keystone of the restructuring process. Failure here will handicap the restructured industry for the foreseeable future. Great care is called for in acceptance of proposed designs, in the regulation now before the FERC, and future legislative actions.

Hard choices will be made. Surely, the transmission organizations must be regional, and the FERC should mandate that option. The trend towards independent not-for-profit operators, the ISO model, should be continued. The for-profit, transco model, raises a real specter of unbridled market power, which, at best, will mean the perpetuation of the regulatory regime. Regardless of the outcome of these two basic choices, particular care must be taken in designing the internal policymaking, standard setting, and dispute resolution processes. Participants in that design, many of whom are not accustomed to confronting such issues, must ensure that the internal decisionmaking process fits the special needs of this restructured industry.

295. *See id.*