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Jim Rossi, *The Political Economy of Energy and Its Implications for
Climate Change Legislation*, originally published in 84 Tul. L. Rev.
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The Political Economy of Energy and Its Implications for Climate Change Legislation

Jim Rossi*

Public choice themes have arisen throughout the history of U.S. energy regulation and continue to be relevant today, particularly with widespread discussion of deregulation and increased attention to climate change. This Article surveys how public choice themes are relevant to understanding a host of issues of importance to the electric power industry today, including the structure of the industry, the significance of wholesale markets, and the division of regulatory power between state and federal authorities. The Article highlights how an understanding of how public choice has contributed to these features of the electric power industry will prove important to the successes and failures of national climate change policy.

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I. INTRODUCTION

Recent debates about climate change view the energy industry with regulatory mandates in mind. For example, pending legislation before Congress has announced carbon targets, ambitious goals for renewable energy, and subsidies and tax breaks for new technologies.¹ This Article argues that U.S. climate change reforms should not be approached without placing the regulation of energy within the history and context of its economic regulation. The extent to which the interaction between private stakeholders and governmental actors in energy industries reflects self-interest rather than sound economic policy was studied by classic scholars of modern public choice scholarship as early as the 1960s and continues to hold the attention of economists and political scientists today.

As we approach climate change reform, these issues cannot be ignored, as they will impact the success of climate change policies. It is perhaps obvious that environmental regulation of an infrastructure-heavy industry, such as electric power, cannot be successful without some basic attention to economics. However, economic aspects of electric power and its operation receive little or no attention in debates surrounding climate change. The history of economic regulation of electric power helps us to understand why the industry is structured the way it is, as well as why regulating one aspect of the industry without paying attention to incentives and broader system impacts of behavior can thwart, if not undermine altogether, broader regulatory goals.

This Article takes as its starting point the history of public utility regulation. Certain economic features and legal doctrines that are commonplace under traditional public utility regulation—the predominant approach by which many energy resources were price regulated throughout the twentieth century—may reflect rent seeking on the part of private stakeholders as much as enlightened public

1. As of October 2009, there are several pending bills before Congress, addressing topics that range from cap and trade programs for carbon emissions, renewable portfolio standards, and expanded federal authority over high-voltage transmission lines. The House of Representatives has adopted landmark legislation, The American Clean Energy and Security Act of 2009 (commonly known as the “Waxman-Markey” bill). Waxman-Markey adopts a national renewable portfolio standard, expands FERC’s authority over transmission siting and planning, and mandates a complex cap and trade system for carbon emissions. H.R. 2454, 111th Cong. (2009). On the Senate side, The Clean Energy Jobs and American Power Act was introduced by Senators Barbara Boxer and John Kerry in fall 2009, but has yet to be adopted. This bill focuses primarily on carbon cap and trade. Another bill that has been approved by the Senate Energy and Natural Resources Committee addresses electric power renewable goals and expands FERC’s authority over transmission planning and siting. American Clean Energy Leadership Act of 2009, § 1462.

interest by lawmakers. For example, the preferences of various interest groups have bolstered the stability of public utility legal doctrines, such as consumer protection requirements and the judicial reluctance to extend strong constitutional protections to energy firms. Public choice approaches also can illuminate the regulatory and institutional arrangements that have evolved in national energy regulation. Many energy resources are geographically limited in source and extraction, yet nationwide in consumption. An interest group approach to legislation sheds light on why Congress has elected to address some energy issues at the national level, while ignoring others altogether, or leaving them to subnational governments. In addition, logrolling, which has characterized most recent congressional energy legislation, helps to illustrate how seemingly disparate energy issues have become connected in national energy policy and how national energy policy has been largely unsatisfactory and unstable across time. It also advises caution in reading specific purposes into general energy legislation.

In addition to understanding the history of regulation, this Article highlights that national climate change policy must also recognize developments related to deregulation of the electric power industry. Recent efforts to privatize and deregulate energy resources have been celebrated by many as a triumph of markets over regulation. However, the interest group story surrounding the movement towards new energy markets is itself heavily dependent on governmental processes and is subject to the same kind of public choice critique that has been applied to traditional energy regulation. Competitive restructuring of energy markets can be understood as motivated by private self-interest in the political process, rather than as an entirely pro-free market policy, making public choice insights relevant in new ways. In addition, as we approach regulation with climate goals in mind, understanding the political economy of the legal structure that contributes to constrained transmission capacity is a fundamental predicate to increased dependency on renewable sources, as well as new technologies.

Part II addresses public choice foundations for public utility regulation and how this legal framework contributed to the current industry structure in electric power. Part III highlights the nature of federalism in energy, and the dual regulatory structure that continues to predominate discussions today. It also highlights how national energy legislation—while undeniably important—historically has been, and will likely continue to be, oversold as a solution to many regulatory

problems. Part IV illustrates the political economy implications of deregulation, highlighting how deregulation itself is a type of public choice failure, and how public law remains highly relevant in a deregulated environment. Part V concludes, suggesting that modern climate change efforts must recognize these political economy foundations by confronting carbon neutrality in transmission at the national level; by retaining a substantial sphere for leadership in climate policy by state and local governments; and by approaching climate change against the backdrop of wholesale deregulation and the economic incentives facing private firms in that context, rather than by relying entirely on outdated regulatory assumptions about the energy industry.

II. RENT SEEKING IN STATE AND LOCAL REGULATION OF ENERGY AND THE POLITICAL ECONOMY SOURCES OF CONSTRAINED TRANSMISSION

Public choice has been said to embrace a “cynical” perspective regarding regulation’s promise and effectiveness.² As Martha Derthick and Paul Quick have observed of twentieth-century regulation generally,

The predominant view of both economists and political scientists was that regulation presented a case in which the benefits of government policy were concentrated in a few well-organized interests—the firms and unions that were protected from competition—whereas the costs were widely dispersed among consumers whose incentives to organize to protect their interests were insufficient to induce political action.³

At its least controversial, this account views governmental regulation as motivated by private self interest and, at times, ineffective.⁴ Much public choice scholarship has emphasized how governmental regulation of energy reflects rent-seeking behavior by private actors as well as government officials, in ways that sometimes limit or reduce aggregate wealth. An extreme strand of this work views regulation as

2. JERRY L. MASHAW, *GREED, CHAOS, AND GOVERNANCE: USING PUBLIC CHOICE TO IMPROVE PUBLIC LAW* 27 (1997).

3. MARTHA DERTHICK & PAUL J. QUIRK, *THE POLITICS OF DEREGULATION* 9-10 (1985).

4. Robert L. Bradley Jr., *The Origins and Development of Electric Power Regulation*, in *THE END OF A NATURAL MONOPOLY: DEREGULATION AND COMPETITION IN THE ELECTRIC POWER INDUSTRY* 47-49 (Peter Z. Grossman & Daniel H. Cole eds., 2003).

an abysmal failure in which governmental officials are “captured” by those they regulate.⁵

A. Public Utility Regulation: Market Failure or Rent Seeking?

Price regulation of energy firms was frequently based on the premise that the production and distribution of energy is a natural monopoly and, if firms were left unregulated, they would underproduce and charge excessive rates. For example, the modern, investor-owned electric utility was conceived in late nineteenth-century Chicago, by Samuel Insull, an associate of Thomas Edison. Eventually, Chicago Edison (Commonwealth Edison’s predecessor), competing for increased service territory, realized that ownership of multiple generators within the same firm allowed significant coordination economies.⁶ Because of its technical characteristics (for example, it cannot be stored), electricity must be moved on a closely coordinated, integrated transmission system that displays large economies of scale.⁷ Insull was able to consolidate a geographic service territory for a single utility, Chicago Edison; the utility was required to provide service, and in return the utility was given an exclusive franchise, precluding others from providing service within its assigned area.

Under the traditional approach to natural monopoly regulation of gas and electric utilities, regulators define a franchise service area for a public utility, guaranteeing it access to customers within this area. Once a franchise is defined, the traditional approach to regulating the electric utility is to regulate rates in a manner designed to approximate the results of a competitive market. In a competitive market, price equals long-run marginal economic cost, including a normal rate of return on capital. In contrast, though, a monopolist can increase its profits by charging prices that exceed marginal cost. Because marginal cost is difficult to measure directly, regulators approximate marginal cost by computing the utility’s invested capital (rate base), determining an allowable rate of return on that invested capital, and

5. BARRY M. MITNICK, *THE POLITICAL ECONOMY OF REGULATION: CREATING, DESIGNING, AND REMOVING REGULATORY FORMS* 206-40 (1980).

6. HAROLD L. PLATT, *THE ELECTRIC CITY: ENERGY AND THE GROWTH OF THE CHICAGO AREA, 1880-1930*, at 74-82 (1991).

7. The differences between electricity and other commodities are only differences in degree. For instance, other industries face physical constraints on transportation (e.g., railroads) and other commodities are difficult and costly to store (e.g., natural gas). Firms in the electricity industry, like firms in other industries, have found ways to economize on the costly technical characteristics of electricity.

setting rates designed to produce the prescribed rate of return on capital.

As historians such as Richard Hirsh describe it, electric utility managers themselves sought the proliferation of the natural monopoly price regulation model in individual states.⁸ Insull himself headed a trade association called the National Electric Light Association (NELA), which played a key role in proposing and lobbying for state regulation of electric utilities throughout the United States. NELA viewed municipal ownership of utilities as the main alternative to price regulation, but opposed public ownership. A compromise position forged by the University of Wisconsin economist John Commons, who worked together with Insull, supported state price regulation of privately owned utilities in states such as Wisconsin and New York.⁹

During most of the twentieth century, the production of other energy resources, such as oil and gas, was not directly price regulated by federal regulators but was heavily regulated by states to stabilize production and to define and protect contract and property interests over time. Ownership of oil and gas was largely determined by a “rule of capture,” which was first articulated as a nineteenth century common law principle.¹⁰ Under the rule of capture, the owner of land has an incentive to quickly appropriate as much of an energy resource as possible to limit the owner’s neighbor from winning the race to appropriate the resource. The race to acquire wealth contributed to enormous waste, with entire pools of oil and gas drained within a few short years. In response to this problem, many states adopted conservation regulations, limiting the number of wells that could be drilled and the amount of oil that could be pumped. “Unitization” was a contractual approach in which multiple adjacent producers in an oil field delegated authority to a single field operator; the operator then apportioned rents among various producers, achieving a similar purpose. Some states made unitization compulsory.

Although a market failure story can be told to support traditional utility regulation and oil and gas conservation requirements, public choice theory provides an alternative account of the origins and purposes of governmental intervention. One of the earliest empirical studies in the public choice literature, by George Stigler and Claire Friedland, focused on the electric power industry. Their study found

8. RICHARD F. HIRSH, *POWER LOSS: THE ORIGINS OF DEREGULATION AND RESTRUCTURING IN THE AMERICAN ELECTRIC UTILITY SYSTEM* 23 (1999).

9. Bradley, *supra* note 4, at 48.

10. *Westmoreland & Cambria Natural Gas Co. v. De Witt*, 18 A. 724, 725 (Pa. 1889).

no significant variation in any measure associated with regulation (including prices and revenues) across states, with or without commissions, or across periods, before or after the initiation of commission regulation.¹¹ These early findings raise a serious question about the purpose of regulation. If regulation of electricity does not lower rates or revenues, then what purpose does it serve?

An early response developed by public choice scholars answered this question with cynicism towards government regulation. These forms of regulation could be understood as a type of rent seeking by large firms, which lobbied government to protect their market share in ways that may have reduced or limited aggregate wealth. In advocating government auctioning of monopoly franchises, Harold Demsetz argued that “the rivalry of the open market place disciplines more effectively than do the regulatory processes of the commission.”¹² George Stigler advanced Demsetz’s cynicism in a path breaking article, in which he argued that regulation can be understood economically as a commodity, and is prone to influence by powerful interest groups such as regulated industries.¹³ At the extreme, this lent support for the “regulatory capture” theory of the regulatory process, in which bureaucrats were understood to be captured by the powerful business groups they regulated.¹⁴ Richard Posner contrasted the “capture” view to “public interest” accounts, stressing how price increases could be attributed to regulation of oil and other industries and how producers’ surplus was largely dissipated through rent-seeking outlays.¹⁵ Gary Becker elaborated that regulators will find most policies that concentrate their benefits on a few powerful interest groups while dispersing their costs among many most attractive.¹⁶ Electric and natural gas utilities, which were powerful producer interest groups at the state and local level, were exactly the kind of strong, homogenous interest group economists initially predicted to exploit the regulatory process under the Stigler and Becker model. An early empirical study by Gregg Jarrell found strong empirical evidence

11. George J. Stigler & Claire Friedland, *What Can Regulators Regulate? The Case of Electricity*, 5 J.L. & ECON. 1, 11 (1962).

12. Harold Demsetz, *Why Regulate Utilities?*, 11 J.L. & ECON. 55, 65 (1968).

13. George J. Stigler, *The Theory of Economic Regulation*, 2 BELL J. ECON. & MGMT. SCI. 3, 4 (1971).

14. MARVER H. BERNSTEIN, REGULATING BUSINESS BY INDEPENDENT COMMISSION 184 (1955).

15. See Richard A. Posner, *Theories of Economic Regulation*, 5 BELL J. ECON. & MGMT. SCI. 335 (1974).

16. Gary S. Becker, *A Theory of Competition Among Pressure Groups for Political Influence*, 98 Q. J. OF ECON. 371, 385 (1983).

favoring state regulation of electric power as pro-producer, supporting the industry capture thesis.¹⁷

Later studies, however, are far less sanguine about the plausibility of industry capture or of a simplistic, producer rent seeking dominated account of energy regulation at the state and local level. Sam Peltzman extended Stigler's model, focusing on consumer as well as producer interests.¹⁸ Political scientists have found this approach attractive, taking into account consumer interests as well as producer interests in their assessment of the regulatory process.¹⁹ More recent economic studies of the issue find little direct support for the industry capture thesis in the context of state electric power regulation. One recent study draws on Peltzman's extension of Stigler's interest group model to emphasize that state regulation of utilities was a response to both consumer interest groups and inefficiencies in municipal regulation.²⁰ Consumer interest groups have also been found to be quite influential in recent modifications to state utility regulation, such as the creation of government-funded consumer advocates.²¹ As George Priest emphasized in his survey of the state adoption of utility regulators, neither the pure "capture" explanation nor the altruistic "public interest" model of regulation adequately addresses the nuances of the interactions that occur among regulated firms, other stakeholders, and regulators.²² Nuanced study of such interactions is fundamental to any theory of the origin and source of change of regulation.

Regulation of oil and gas production at the state level provides a parallel example of what might be characterized as rent seeking by producers to establish quotas on production to protect their contract and property interests. By limiting supply through conservation requirements, or through unitization, such restrictions had the effect of keeping oil and gas prices artificially high, nicely aligning regulatory policies with the interests of incumbent producers. However,

17. Gregg A. Jarrell, *The Demand for State Regulation of the Electric Utility Industry*, 21 J.L. & ECON. 269, 293 (1978).

18. See Sam Peltzman, *The Economic Theory of Regulation After a Decade of Deregulation*, 1989 BROOKINGS PAPERS ON ECON. ACTIVITY: MICROECONOMICS 1 (1989).

19. William D. Berry, *An Alternative to the Capture Theory of Regulation: The Case of State Public Utility Commissions*, 28 AM. J. POL. SCI. 524, 526 (1984).

20. See Christopher R. Knittel, *The Adoption of State Electricity Regulation: The Role of Interest Groups*, 54 J. INDUS. ECON. 201 (2006).

21. Guy L.F. Holburn & Richard G. Vanden Bergh, *Consumer Capture of Regulatory Institutions: The Creation of Public Utility Consumer Advocates in the United States*, 126 PUB. CHOICE 45, 62 (2006).

22. George L. Priest, *The Origins of Utility Regulation and the "Theories of Regulation" Debate*, 36 J.L. & ECON. 289, 293-94 (1993).

producers in oil and gas have varied interests, given the different concerns of large and small producers. Empirical support that state regulation was primarily due to producer rent seeking—as opposed to the inefficiency of the alternative regulatory approach represented by the legal rule of capture—is mixed at best. Gary Libecap’s study of the Texas Railroad Commission’s regulation of oil production concluded that regulators raised and stabilized prices to the advantage of small producer interests.²³ In a separate study analyzing oil field unitization, Libecap and Steven Wiggins conclude that the approach of states such as Texas and Oklahoma was largely ineffective in comparison to the federal approach because it only allowed for compulsory unitization after oil fields were fully explored and developed.²⁴ These requirements were primarily favored by smaller producers rather than large producers.

While public choice theory has advocated for some cynicism regarding regulation—especially where state and local regulation is at issue²⁵—public choice models (and empirical analysis of their hypotheses) do not universally lead to the condemnation of state and local regulation as captured by energy producers. Public choice theory has long recognized that even competitive firms engage in rent seeking. Concentrated industries with powerful interests, such as energy supply industries at the state and local level, may not be as successful as less powerful, more numerous interest groups. As Gordon Tullock observes, “Such monster industries as big oil and the natural gas producers do not do as well in dealing with the government as do little oil or, in the gas case, households.”²⁶ Tullock’s work highlights how different interest groups face different efficiency returns to rent seeking. Indeed, the fact that consumer groups, and even environmental concerns, have been as successful as they have in influencing legislation and regulation at the subnational level indicates that the interest group impact on energy regulation is not limited to producers.

23. Gary D. Libecap, *The Political Economy of Crude Oil Cartelization in the United States, 1933-1972*, 49 J. ECON. HIST. 833, 854 (1989).

24. Gary D. Libecap & Steven N. Wiggins, *The Influence of Private Contractual Failure on Regulation: The Case of Oil Field Unitization*, 93 J. POL. ECON. 690, 692 (1985).

25. MASHAW, *supra* note 2, at 199.

26. Gordon Tullock, *Efficient Rent Seeking*, in EFFICIENT RENT-SEEKING: CHRONICLE OF AN INTELLECTUAL QUAGMIRE 3 (Alan A. Lockard & Gordon Tullock eds., 2000).

B. Public Choice, the Stability of the Regulatory Contract and Traditional Doctrines of Public Utility Law

Regulatory lawyers often view natural monopoly regulation as a “regulatory compact,” a fictional contract between the utility and the state.²⁷ Under this compact, the utility consents to certain obligations, such as the duty to serve customers, in return for its geographic franchise and expected recovery of its costs of service through regulated rates.²⁸ In the parlance of economists, the relationship between a utility and government can be understood within a long term contract framework, given the large amounts of capital required for network infrastructure and the complexity of the underlying environment, leading to poor specification of contractual terms.²⁹ This is not a mere bilateral contract between a firm and the government but a contract that also includes consumer and environmental interest groups.

Twentieth century regulatory law imposed a duty to serve on natural gas and electric utilities, requiring them to provide service to customers even where it was not economically profitable.³⁰ For all the rhetoric in American law about “universal service” and the “duty to serve,” during the era of rate regulation consumer service obligations were frequently undertaken voluntarily by utilities as opposed to by legal mandate. Companies (beginning with utilities such as Chicago Edison) relied on the scale economies claim to support their monopolies but, in return for an exclusive franchise (precluding others from providing service within a defined geographic area) and rate regulation (guaranteeing recovery of capital costs), these firms understood that they were agreeing to an important condition: the extension and continued provision of service to all customers. Universal service was considered a key part of the natural monopoly

27. J. GREGORY SIDAK & DANIEL F. SPULBER, DEREGULATORY TAKINGS AND THE REGULATORY CONTRACT: THE COMPETITIVE TRANSFORMATION OF NETWORK INDUSTRIES IN THE UNITED STATES 204-07 (1997).

28. Hirsh, *supra* note 8, at 26-29.

29. Victor P. Goldberg, *Regulation and Administered Contracts*, 7 BELL J. ECON. & MGMT. SCI. 426, 441-44 (1976); Priest, *supra* note 22, at 294; Oliver E. Williamson, *Transaction-Cost Economics: The Governance of Contractual Relations*, 22 J.L. & ECON. 233, 257-58 (1979).

30. CHARLES M. HAAR & DANIEL WM. FESSLER, THE WRONG SIDE OF THE TRACKS: A REVOLUTIONARY REDISCOVERY OF THE COMMON LAW TRADITION OF FAIRNESS IN THE STRUGGLE AGAINST INEQUALITY 178-83 (1986).

franchise bargain even where it was not an express term of the bargain.³¹

Twentieth century U.S. regulators built on an ancient common law duty that applied to public utilities such as ferries, flour mills, and railroads. This duty imposed on electric utilities a “duty to serve”—an obligation to provide extraordinary levels of service to customers, especially small residential customers. As applied by courts and regulators in most states, the public utility duty to serve entailed several obligations, among them duties to interconnect and extend service if requested, to provide continuing reliable service, to provide advanced notice of service disconnection, and to continue service even though a customer could not make full payment. Unlike other obligations that applied to private firms, including those such as inns and restaurants representing or holding themselves out as serving the public, in the public utility context the duty to serve required service where it was not ordinarily considered profitable.

The link between the public utility concept and the duty to serve survived many different regulatory eras and institutional arrangements, garnering a variety of intellectual explanations. There are strong fairness and distributional arguments supporting a duty to serve. However, public choice aspects of the regulatory contract also provide a strong explanation for the service obligations imposed on gas and electric utilities. Under the natural monopoly regulatory framework, the duty to provide service, even where it is not immediately profitable, presented some benefits to producers as well as to consumers. An electric or gas utility was allowed to seek compensation for the costs of providing service through regulated rates, while also providing customers adequate opportunities to contest service curtailment or to seek an alternative supplier. The service continuation obligation facilitated intra-class cross-subsidization by building into all customers’ rates the costs of customers who cannot afford to pay the full costs of their bills. Although this likely led to mismatches between any one customer’s costs and rates, it allowed utilities to spread these risks among all customers and thus was not necessarily inefficient. When a utility removed a customer who could not afford full payment from its system by disconnecting service, two things occurred. First, the utility avoided the variable costs of producing energy, typically the price of the fuel required to deliver the units of energy to the customer. Second, because service continuation gave the utility leverage in

31. PLATT, *supra* note 6, at 24-25.

collection, the utility forewent any revenue that it might have been able to collect from the household if service were continued. So, assuming excess capacity, there may have been a general economic advantage to all ratepayers in keeping as many customers as possible on the system. Service continuation obligations allowed the utility to spread fixed costs (for existing capacity) over a larger number of customers and to reduce the portion of each customer's bill allocated to fixed costs.³² Thus, even in the event of "nonpayment, it may be cost-effective for a utility with excess capacity to continue service to a customer and to accommodate the nonpaying customer by working out a partial payment plan, so long as it [is] reasonably expected that the customer can pay at least the variable cost of service."³³

Both consumer groups and utilities saw it as to their benefit to allow regulators to strike a balance to ensure that the benefits of universal access to utility service offset these costs, allowing the duty to serve to have a relatively continuous and stable coexistence with franchise and price regulation under natural monopoly regulation. As consumer service obligations illustrate, the general approach of the traditional rate regulation model aligned many consumer interests and the interests of the regulated firm. For similar reasons, the rate regulation process lived in relative harmony with many environmental interest groups, as it was generally expected that the costs of environmental controls would be approved by state regulators in the rate-making process.

The public utility regulatory bargain presented a relatively stable regulatory equilibrium at the state and local level in energy industries throughout the twentieth century for two reasons. To begin, the iterated structure of rate regulation created expectations of stability for the firm and helped to reduce the asymmetry of information between the firm and the regulator. If in one period the firm was under-compensated for its activities, the regulator could make up the difference in the next period. Likewise, if the firm incurred windfalls, regulators might recoup some of these in a future period. In this sense, repeated iterations made the rate-making process self-correcting from the perspective of the firm and its costs. This might explain part of the

32. Roger Colton, *A Cost-Based Response to Low-Income Energy Problems*, 127 *PUB. UTIL. FORT.* 31, 34-35 (1991).

33. Jim Rossi, *The Common Law "Duty To Serve" and Protection of Consumers in an Age of Competitive Retail Public Utility Restructuring*, 51 *VAND. L. REV.* 1233, 1273 (1998).

traditional preference of regulatory agencies for case-by-case regulation of the firm over industry-wide rulemaking.³⁴

The iterated negotiation of rate making also provided a stable backdrop due to the historical structure of industry and interest group stakeholders. Although traditional rate regulation did present some significant problems (such as the Averch-Johnson effect discussed below), price regulation of natural monopolies concentrated the benefits and dispersed the costs of regulation.³⁵

Regulated industries also provided a relatively stable equilibrium for the primary nonfirm interest group stakeholders, such as consumer and environmental concerns.³⁶ Rate making provided stability in rates for customers, while also subsidizing access to service for low-income and rural customers. For environmental interest groups as well, the rate-making process produced great opportunities. With only a few large firms providing service in a given state jurisdiction, the politics of environmental regulation at the state and national levels could portray large monopolies as the primary targets for pollution control and other environmental mandates. While utilities were not always complacent about pollution controls—especially those imposed on existing plants with little or no guarantee of cost recovery—firms were also not unaware of the low stakes most locally-sanctioned, forward-looking environmental controls presented to them. Through the rate making process, the cost of complying with these mandates could be spread among all customers, rather than concentrated upon the firm or its shareholders.

Because the homogenous, vertically-integrated utility could negotiate for regulation at relatively low costs, coordinated solutions to most conflicts were worked out before regulatory commissions, not courts. A good example is the application of constitutional takings protections to utility rate-making proceedings. In the early days of utility regulation at the end of the nineteenth century, the United States Supreme Court endorsed a “fair value” test, an approach that thrust courts into the business of valuing utility rates on substantive due process grounds.³⁷ These early rate-making cases, decided largely during the *Lochner* era (in which courts looked with disfavor on state regulation of economic activity), take an ad hoc approach to

34. PAUL J. QUIRK, *INDUSTRY INFLUENCE IN FEDERAL REGULATORY AGENCIES* 11 (1981).

35. Derthick & Quirk, *supra* note 3, at 9-10.

36. JIM ROSSI, *REGULATORY BARGAINING AND PUBLIC LAW* 43 (2005).

37. *See Smyth v. Ames*, 169 U.S. 466, 541 (1898).

adjudicating whether government-set rates are constitutional. The inquiry into fair value required courts to consider a range of facts—“to be given such weight as may be just and right in each case”—in determining whether fair value was provided.³⁸ Takings cases of the period have been described as ad hoc and unpredictable, leading to “endless litigation” and calling into question the role of courts in reviewing economic matters.³⁹ Justice Brandeis, joined by Justice Holmes, famously criticized the substantive judicial inquiry into fair value for requiring courts to invest substantial resources into determining utility rates without producing a very useful economic rate structure.⁴⁰

Following Justice Brandeis’ advice, the Supreme Court repudiated this activist position in the 1940s, adopting instead an “end results” test. In *Federal Power Commission v. Hope Natural Gas Co.*,⁴¹ the Court indicated that it will focus on the result rather than the method of rate making. According to Justice Douglas, “It is not theory but the impact of the rate order which counts. If the total effect of the rate order cannot be said to be unjust and unreasonable, judicial inquiry . . . is at an end.”⁴² This approach is consistent with the Court’s repudiation of *Lochner* and its generally deferential judicial review of economic regulation in the New Deal era.

The Supreme Court has reaffirmed this deferential approach to reviewing utility price regulation in every case decided since 1944. In *Market Street Railway v. Railroad Commission*, the Court refused to require compensation where the government did not authorize full recovery of the costs of obsolete technology.⁴³ Later, in the *Permian Basin Rate Cases* the Court rejected a challenge to the Federal Power Commission’s ability to set area-wide rates for natural gas, reasoning that there is no constitutional obligation to determine individual rates on a cost of service basis.⁴⁴ The most recent rate-making case

38. *Id.* at 546-47.

39. Jim Chen, *The Second Coming of Smyth v. Ames*, 77 TEX. L. REV. 1535, 1556 (1999).

40. *See Missouri v. Pub. Serv. Comm’n*, 262 U.S. 276, 299-302 (1923) (Brandeis, J., concurring).

41. *Fed. Power Comm’n v. Hope Natural Gas Co.*, 320 U.S. 591, 602 (1944).

42. *Id.*

43. *Mkt. St. Ry. v. R.R. Comm’n of Cal.*, 324 U.S. 548, 557, 564-65 (1945) (deferring to regulators’ decision not to allow recovery of San Francisco street cars and bus lines valued by regulators at less than one-third the amount at which they would have been valued using historical or reproduction costs).

44. *In re Permian Basin Area Rate Cases*, 390 U.S. 747, 768 (1968).

considered by the Court, *Duquesne Light Co. v. Barasch*,⁴⁵ upheld a lower court's disallowance of nuclear assets that were not "used and useful" and expressly reaffirmed *Hope*. "Today we reaffirm these teachings of *Hope Natural Gas*."⁴⁶ Although the Court frequently does review the procedures used by regulatory bodies, it continues its reluctance to review the economic reasoning of regulatory decisions involving public utilities.

Two rationales explain the Supreme Court's deferential approach to utility rate-making cases. First, because the rate-making process is an ongoing interaction between firms and other stakeholders and regulators, the process is largely self-correcting. Regulators may underestimate the cost of capital in one year, but in a later year, through modifications, they can correct any deficiency in utility earnings and revenues by adjusting cost of capital. Hence, there is little in terms of increased accuracy to be gained from judicial review.

Second, in a nod to the insights of public choice perspectives on the regulatory process, courts seem to recognize that the political process already provides adequate protections for utilities and their investors. Utility rate making, which tends to be a transparent and well-developed regulatory procedure, provides a forum for regulators to balance the interests of investors, firms, consumers, and the state. According to Richard Pierce:

Detailed judicial review of ratemaking had little, if any, effect in constraining the political process. Moreover, the judicial review process imposed high error costs and high judicial resource costs. Thus, the "end result" test announced in *Hope* can be seen as a decision to allocate to the political institutions of government near total power to protect the constitutional values underlying the takings clause in the ratemaking context. This is required by the severe institutional limitations of the judiciary as a potential source of protection of those values.⁴⁷

In utility regulation controversies, courts use the deferential approaches of cases like *Hope*, *Market Street Railway*, *Permian Basin*, and *Duquesne* over the more ad hoc approach to review, such as those they have adopted in some recent land use takings cases.⁴⁸

45. *Duquesne Light Co. v. Barasch*, 488 U.S. 299, 302 (1989).

46. *Id.* at 310.

47. Richard J. Pierce, Jr., *Public Utility Regulatory Takings: Should the Judiciary Attempt To Police the Political Institutions?*, 77 GEO. L.J. 2031, 2046 (1989).

48. Susan Rose-Ackerman & Jim Rossi, *Disentangling Deregulatory Takings*, 86 VA. L. REV. 1435, 1453-56 (2000).

In addressing the application of takings jurisprudence to changes in utility regulation, Gregory Sidak and Daniel Spulber rely on public choice type arguments to conclude that the regulatory contract imposes constitutional obligations on the state to fulfill the terms of the regulatory bargain.⁴⁹ However, Justice Black's articulation of the purpose of regulatory takings—"to bar Government from forcing some people alone to bear public burdens which, in all fairness and justice, should be borne by the public as a whole"—is simply not a central concern in utility regulation.⁵⁰ As Richard Goldsmith argues: "[R]ate regulators do not allocate burdens between the 'public' on the one hand and the 'few' on the other" but balance "the cost of utility service between large classes of investors and consumers."⁵¹ It would be particularly odd to invoke takings protections to the advantage of investors and the utility industry since they have an overwhelming advantage in information, wealth, and political power and "boast a superior ability to bear risk and to mitigate damage from unforeseen contingencies—the precise economic attributes that justify the imposition of liability in virtually every other legal context."⁵² In fact, given their comparative institutional disadvantage in making politically accountable policy decisions, courts generally defer to regulators and avoid involving themselves actively in the policing of utility rate regulation.⁵³

This is not to suggest that the takings clause is without *any* application to utility price regulation. In *Duquesne*, the Supreme Court expressly recognized that there is a constitutional limit in setting utility prices; if regulators threaten the financial integrity of a utility or provide inadequate compensation to current equity owners for the risks associated with their investments, they may effectuate a taking.⁵⁴ Although lower courts occasionally raise such concerns,⁵⁵ the Court

49. SIDAK & SPULBER, *supra* note 27, at 119-26.

50. *Armstrong v. United States*, 364 U.S. 40, 49 (1960).

51. Richard Goldsmith, *Utility Rates and "Takings,"* 10 ENERGY L.J. 241, 255 (1989).

52. *See* Chen, *supra* note 39, at 1559.

53. *See* Pierce, *supra* note 47, at 2032.

54. *Duquesne Light Co. v. Barasch*, 488 U.S. 299, 312-14 (1989) ("No argument has been made that these slightly reduced rates jeopardize the financial integrity of the companies, either by leaving them insufficient operating capital or by impeding their ability to raise future capital. Nor has it been demonstrated that these rates are inadequate to compensate current equity holders for the risk associated with their investments under a modified prudent investment scheme?").

55. *See, e.g., Jersey Cent. Power & Light Co. v. Fed. Energy Reg. Comm'n*, 810 F.2d 1168, 1181-82 (D.C. Cir. 1987) (reversing and remanding FERC's disallowance of unamortized nuclear investment from rate base for failure to provide an explanation); *id.* at

has not applied these limits in the utility rate-setting context and its cases over the past fifty years do not suggest any eagerness to engage in a more activist review of utility price setting. In fact, despite *Duquesne's* anticipation that takings claims may legitimately be asserted against regulators' price setting, some lower courts interpret the cases as allowing a significant public interest to justify the financial destruction of a regulated utility.⁵⁶

The implications of public choice for traditional public utility regulation in the energy sector are not unidirectional. Public choice focuses primarily on the behavior of government actors in response to private influence, but once a government has selected a specific policy, public choice also highlights how expectations regarding government behavior can affect private behavior. Specifically, an expectation of favorable regulatory treatment can influence the behavior of firms in their private investment decisions. If courts were to provide the kind of constitutional protections that commentators such as Sidak and Spulber envision, this could perversely encourage firms to over-invest in uneconomic projects with an expectation that the government would compensate them if the investments do not yield an adequate return.

For example, economists have noted that traditional price regulation may create incentive for an industry to adopt a higher than optimal capital to labor ratio in the industry. This phenomenon, known among economists as the "Averch-Johnson" effect,⁵⁷ has some empirical support in the context of electric power,⁵⁸ although its magnitude is widely debated among economists.⁵⁹ Regardless of the

1193 (Starr, J., concurring) (arguing that a "reasoned consideration" of investor interests requires more than a mechanical application of rules but consideration of what expectations exist under a regulatory compact).

56. See *Ohio Edison Co. v. Pub. Utils. Comm'n*, 589 N.E.2d 1292, 1300 n.8 (Ohio 1992) (asserting boldly that the Constitution "no longer provides any special protection for the utility investor" (internal quotation marks omitted)); *Gulf States Utils. Co. v. La. Pub. Serv. Comm'n*, 578 So. 2d 71, 106 (La. 1991) (holding that a taking will be found only when the state "failed to consider the legitimate interests of the utility and its investors in a higher rate of return, and to weigh those interests against the competing concerns of the rate-payers").

57. Harvey Averch & Leland L. Johnson, *Behavior of the Firm Under Regulatory Constraint*, 52 AM. ECON. REV. 1052, 1068 (1962).

58. Economists have found some empirical support for existence of the Averch-Johnson effect. See Léon Courville, *Regulation and Efficiency in the Electric Utility Industry*, 5 BELL J. ECON. & MGMT. SCI. 53, 72 (1974); H. Craig Petersen, *An Empirical Test of Regulatory Effects*, 6 BELL J. ECON. 111, 124 (1975); Robert M. Spann, *Rate of Return Regulation and Efficiency in Production: An Empirical Test of the Averch-Johnson Thesis*, 5 BELL J. ECON. & MGMT. SCI. 38, 50 (1974).

59. If the expected rate of return used by regulators is below the cost of capital, the empirical results seem mixed, at best. See William J. Boyes, *An Empirical Examination of the Averch-Johnson Effect*, 14 ECON. INQUIRY 25 (1976); W. Davis Dechert, *Has the Averch-*

size of the Averch-Johnson effect, it is commonly recognized that many firms in the electric power industry over-invested in certain types of capital, such as power generation. In the 1960s and 1970s, utilities made many investments (often with the blessing of regulators) that, with hindsight, do not seem prudent. For instance, in the late 1960s and early 1970s, power plants in excess of 1100 megawatts were designed and installed using extrapolation by growth methods.⁶⁰ The new machines were not as efficient as previously installed plants, yet once decisions were made to site and build these plants, customers were forced to pay for the older, less efficient plants. Regulators approved many of these decisions to build mammoth power plants. In many circumstances, regulators even encouraged construction of these plants using extrapolation by growth to predict continuing growth in electricity, even though sales growth figures declined drastically post-1960. For instance, the five-year moving average of sales declined from around seven percent in 1960 to two percent in 1996, so if regulators used this data they would greatly overestimate growth rates in certain generation markets.⁶¹ Over time, the result of regulators' decisions to approve these plants was a higher than optimal capital to labor ratio in the industry.

The investment decisions of firms under this regulatory order at the state and local level have had an enormous practical impact on the structure of energy industries. For example, decisions to approve utility-operated power plants for local customers served as a substitute for investing capital to expand transmission facilities to wheel power from more remote sources have a continuing effect on the structure of the industry today. For most of the twentieth century, the vertically-integrated utility treated on-system generation as a substitute for the expansion of transmission, leading to serious underinvestment in transmission infrastructure in key regions of the nation. Limited transmission capacity—a constraint shaped by the old regulatory order—remains the most significant problem in the electric power industry today. For example, in states such as Texas and Vermont, wind producers do not have adequate access to transmission to reach customers, threatening the financing and economic viability of the new generation of renewable power projects. Private incentives for

Johnson Effect Been Theoretically Justified?, 8 J. ECON. DYNAMICS & CONTROL (1984). For a review of the evidence, see Paul L. Joskow & Roger G. Noll, *Regulation in Theory and Practice: An Overview*, in *STUDIES IN PUBLIC REGULATION 1* (Gary Fromm ed., 1977).

60. Hirsh, *supra* note 8, at 58.

61. *Id.*

expanding transmission, which remains a natural monopoly, are widely seen by industry experts as somewhere between nonexistent and inadequate. Public choice implications for private investment decisions under the existing legal framework may well have contributed to this failed incentive structure. Federal regulators approaching climate change policy cannot ignore it.

III. THE GROWTH OF NATIONAL REGULATION: PUBLIC CHOICE, FEDERALISM, AND LOGROLLING IN ENERGY LEGISLATION

During the twentieth century, national energy legislation also rose to prominence. Major national legislative initiatives span several eras. During the New Deal era, Congress adopted both the Federal Power Act and the Natural Gas Act. Since the New Deal, several major energy statutes have been enacted, primarily in reaction to international events. During the energy crisis of the 1970s and the international swirl surrounding the OPEC Oil Embargo, Congress adopted comprehensive energy legislation that includes statutes such as the Natural Gas Policy Act and the Public Utilities Regulatory Policies Act.⁶² Following the first Gulf War, Congress adopted the Energy Policy Act of 1992, and in 2005, Congress passed a major post-9/11 energy statute designed to enhance energy independence.

Two public choice themes recur in national energy legislation. The first theme is the ongoing relevance of federalism and the division of authority between states and the national government. Public choice approaches help to shed light on why some energy issues remain within the purview of state and local regulators and outside of the scope of national legislation. Second, energy legislation illustrates the significance of—and problems with—logrolling in the process of congressional lawmaking. Logrolling is responsible for the inclusion of many significant and controversial elements in U.S. national energy policy, but also has become a necessary component of the comprehensive approach that Congress has invoked in recent energy legislation.

A. *Public Choice and Federalism in Energy Policy*

Public choice theory generally views local governments as preferable to a centralized government. Since local governments are

62. Congress, of course, adopted major environmental legislation during the same era, some of which affects energy industries, but the topic of environmental regulation is discussed in another chapter.

relatively small, homogenous, and possess a limited range of functions, they will have the fewest democratic problems in adopting policies that reflect and are responsive to the preferences of voters. This political insight of public choice theory converges with efficiency defenses of federalism. Charles Tiebout presents a systematic defense of how a decentralized structure can achieve economic efficiency in the provision of public goods.⁶³ Tiebout's model assumes that households are freely mobile and that they shop between subnational jurisdictions for a preferred package of services, taxes, and regulations. On this view of competitive federalism, if any subnational jurisdiction is to provide inefficient services, households and firms will move to a more efficient jurisdiction.

Building on Tiebout, Wallace Oates's account of fiscal federalism sees a central government as assigned primary responsibility for regulatory activities involving spatially dispersed populations and presenting significant externalities.⁶⁴ State and local governments, in contrast, are more effective in addressing activities for which spillovers are limited or absent. As Oates has stated, "The tailoring of outputs to local circumstances will, in general, produce higher levels of well-being than a centralized decision to provide some uniform level of output across all jurisdictions."⁶⁵ Inefficiencies may result in regulation at the state and local level where there are significant externalities, however, and assigning responsibility to central government in such circumstances could be justified.

Inman and Rubinfeld build on Oates's model to describe some of the failings with a centralized approach to regulation.⁶⁶ As they highlight, cooperative federalism, or relying on unanimous interjurisdictional bargains between states and the federal government, has not been very effective as a regulatory strategy. The costs of reaching unanimity may be so high that no bargains are struck, and excessive competition between jurisdictions may produce waste. As a result, they suggest that federalism is subject to majoritarian, rather than unanimity, constitutional requirements. But, echoing classic public choice themes about democracy, the choice of centralized approaches can have adverse implications for political participation,

63. See Charles M. Tiebout, *A Pure Theory of Local Expenditures*, 64 J. POL. ECON. 416 (1956).

64. WALLACE E. OATES, *FISCAL FEDERALISM* 14-17 (1972).

65. Wallace E. Oates, *Federalism and Government Finance*, in *MODERN PUBLIC FINANCE* 126 (John M. Quigley & Eugene Smolensky eds., 1994).

66. Robert P. Inman & Daniel L. Rubinfeld, *Rethinking Federalism*, 11 J. ECON. PERSP. 43, 47-48 (1997).

and this needs to be balanced against any efficiency gains from centralization.

Jonathan Macey further elaborates by developing a “franchise theory of federalism” that draws on public choice insights. His model explains when Congress is likely to leave responsibility for regulating an activity to state or local regulators.⁶⁷ In Macey’s view, Congress leaves matters to state or local regulators only when the political support it is likely to obtain by doing so is greater than the political support it obtains from regulating itself. In other words, congressional deference to state and local regulators is a strategy members of Congress can use to maximize political support from interest groups. Macey concludes that Congress will “franchise” regulation to state or local governments where: (1) a noncentralized jurisdiction has already developed a body of regulation that is a valuable capital asset which federal regulation would dissipate; (2) where the outcome likely to maximize political support varies across jurisdictions due to the existence of spatial monopolies, differences in political optima, and variations in voter preference across regions; and (3) where Congress can avoid damaging political opposition from special interest groups by placing responsibility for controversial issues on state and local governments.⁶⁸

In the context of energy regulation, these public choice insights hold explanatory power for understanding why Congress has chosen to regulate certain activities at the national level, while leaving other activities to state and local regulators. At the national level, the strongest interest groups are homogenous across various geographic regions and include producers of primary resources (such as those who own mineral rights), producers of secondary energy resources (such as electric utilities), and large wholesale consumers of energy (such as municipal utilities). Industrial customers are the only well-organized consumer interest group that has had much impact on energy legislation at the national level. At the state and local level, the strongest interest groups are much more localized. They include landowners, developers, and consumers, which can be industrial, commercial, or residential. Residential consumers are much better organized at the state level than at the national level.

67. Jonathan R. Macey, *Federal Deference to Local Regulators and the Economic Theory of Regulation: Toward a Public-Choice Explanation of Federalism*, 76 VA. L. REV. 265, 268 (1990).

68. *Id.*

When regulating electric utilities in 1935, Congress adopted a fairly bright line separation between federal regulation of wholesale markets and state regulation of retail activities. This legislative divide has endured through multiple amendments to the Federal Power Act, including major amendments in 1992 and 2005. This jurisdictional divide has effectively left state and local regulators largely responsible for the regulatory decisions that immediately affect retail customers. Yet, it is fairly obvious how federal regulation of wholesale power markets can further efficiency goals. Because electric utilities are interconnected on a national power grid, a state's decisions to limit production or sale of bulk power, or to limit access to its portion of the grid, can impose a significant externality on other states. The costs to states for unanimously agreeing to cooperate in production and sale of power and access to electricity transmission are very high. Utility interest groups have therefore lobbied Congress for a majoritarian solution in the Federal Power Act, which authorized the Federal Power Commission (the predecessor to the Federal Energy Regulatory Commission (FERC)) to regulate bulk power sales. The 1978 amendments to the FPA, which were clarified in 1992 legislation, gave FERC authority to regulate the interstate transmission grid, allowing all utilities fair access to the power grid.

By contrast, interest groups such as landowners and nonindustrial consumer groups are not homogenous across various geographic regions. Land use interests are most powerful at the state and local level, and if Congress were to co-opt regulation of this activity it would generate substantial political opposition at the national level. Consumer interests also are very powerful at the state level, but are hardly a homogenous group in strength and interests given that the costs of energy and the need for it at various times of the year differ from state to state. Some states have relatively low energy costs and low demand, while others face high demand and higher costs. Some states are net energy consumers, while others are net energy producers. Industrial consumers hold particular influence at the state level (as well as in national debates), as they are highly mobile. For many of them, energy represents a significant portion of their operating costs, allowing state regulators to compete in their location decisions. However, residential consumer locational decisions are less elastic when it comes to changes in energy prices, but residential consumers can remain a strong interest group when organized collectively at the state and local level. In addition, consumer interests may have a longstanding interest in preserving the stability of public utility

regulation at the state and local level, which has allowed many pro-consumer policies to continue and even to flourish against the backdrop of wholesale regulation of the industry by FERC.

Of course, state and local governments have taken a particularly aggressive approach to addressing climate change, in many instances beating federal regulators and Congress to the punch. States have adopted aggressive building codes, ambitious fuel efficiency standards, cap and trade approaches to carbon emissions, and renewable portfolio standards.⁶⁹ As Congress approaches similar programs, and enacts them into law, energy's political economy origins highlight the significance of retaining a substantial sphere of authority to encourage and promote state innovation. Congress should approach preemption of such programs with caution, and courts should err against implied preemption of state climate change programs that are more ambitious than federal goals.

B. Logrolling and National Energy Legislation

Public choice can also provide an explanation for the comprehensive approach Congress has taken in recent national energy legislation. Given that most energy legislation over the past three decades was passed in reaction to international concerns with oil markets and high energy prices, the rhetoric of much energy legislation reflects populist values. National energy debates frequently invoke ideological positions on issues such as energy consumption, energy prices, dependence on foreign oil, the desirability of nuclear power, and exploration and drilling in coastal areas.

Despite the ideological framing that occurs in public debates, in some institutional settings the actual political process of adoption may be said frequently to reflect the convergence of self-interest on the part of legislators whose constituents may be focused on very different issues. For example, an early study on congressional energy voting found members from coal-producing states likely to oppose market oriented reforms to oil prices, while members from oil-producing states and others were more likely to support such reforms regardless

69. For recent discussion, see William L. Andreen, *Federal Climate Change Legislation and Preemption*, 3 ENVTL. & ENERGY L. & POL'Y J. 261, 274-78 (2008); Robert L. Glicksman & Richard E. Levy, *A Collective Action Perspective on Ceiling Preemption by Federal Environmental Regulation: The Case of Global Climate Change*, 102 NW. U. L. REV. 579, 600-01 (2008).

of party.⁷⁰ Such studies should not be taken to mean that economic self-interest always motivates congressional voting and is determinative of outcomes. Often, ideology is a strong predictor of congressional votes, even in the context of energy legislation. For example, a study of natural gas deregulation legislation concluded that more than ninety percent of the votes could be predicted by a member's score on the annual ratings given by the Americans for Democratic Action.⁷¹ A leading study of congressional adoption of the Surface Mining Control and Reclamation Act suggests that ideological or altruistic preferences have an important explanatory role in explaining congressional votes and that models that focus exclusively on narrow economic self-interest are poor predictors of voting behavior.⁷² A stronger approach to addressing the political process in the adoption of energy legislation is the hybrid approach, or "a mixed model in which constituent interest, special interest groups, and ideology all help determine legislative conduct."⁷³

Of course, because congressional bills frequently involve more than one issue, are packaged in one massive bill as a part of omnibus legislation, or are tied to budgeting, there are many opportunities for logrolling, or vote trading, in energy legislation. Buchanan and Tullock's theory of logrolling in the legislative process highlights that voting separately on an individual issue allows an outcome that reflects a politician's preferences but does not reflect the intensity of those preferences.⁷⁴ By logrolling, a politician is able to express the intensity of her preferences, effectively treating the voting process like a private marketplace. For example, a member of Congress from West Virginia, who is more or less indifferent to the issue of a federal ban on oil exploration and drilling off the coast of Florida, may support such an effort in return for the support a member of Congress from Florida gives to initiatives favoring the West Virginia coal industry, which are more important to the West Virginia member's district. Such vote

70. Albert L. Danielsen & Paul H. Rubin, *An Empirical Investigation of Voting on Energy Issues*, 31 PUB. CHOICE 121, 127 (1977).

71. Edward J. Mitchell, *The Basis of Congressional Energy Policy*, 57 TEX. L. REV. 591, 602 (1979).

72. Joseph P. Kalt & Mark A. Zupan, *Capture and Ideology in the Economic Theory of Politics*, 74 AM. ECON. REV. 279, 279 (1984).

73. DANIEL A. FARBER & PHILIP P. FRICKEY, *LAW AND PUBLIC CHOICE: A CRITICAL INTRODUCTION* 33 (1991).

74. See JAMES M. BUCHANAN & GORDON TULLOCK, *THE CALCULUS OF CONSENT: LOGICAL FOUNDATIONS OF CONSTITUTIONAL DEMOCRACY* (1990).

trading may allow a legislature to achieve results that are closer to the provision of a socially optimal level of public good.⁷⁵

Energy legislation provides a fertile ground for studying congressional logrolling behavior. In the context of the Public Utility Regulatory Policies Act of 1978 (PURPA), for example, Congress adopted reforms that were designed to encourage new efficiencies in power generation, including the use of renewable resources, and also adopted provisions designed to give greater flexibility in energy consumption for large industrial ratepayers.⁷⁶ Large corporate interests favored the reforms, as did environmental groups. These interest groups' support for PURPA allowed logrolling between members with different constituent pressures. In legislation adopted in 2005, Congress addressed a range of core energy issues, but tied these to agriculture and transportation, allowing for similar logrolling. Although further study is needed regarding how these specific constituent groups influence legislative behavior, the potential for logrolling in such contexts seems strong. It may be quite possible that Congress passes energy legislation when a minority of legislators strongly favors such legislation while a majority strongly opposes it. Further, the fact that Congress continually addresses energy issues in comprehensive legislation indicates that the bargains are struck on the basis of logrolling are, at some fundamental level, unstable as legislative coalitions change.

The normative significance of logrolling for energy legislation is unclear. On the positive side, by allowing some valuation of the intensity of preferences, logrolling may allow Congress to pass comprehensive initiatives whose component parts may not otherwise have sufficient political support to be adopted into law.⁷⁷ However, logrolling can have negative implications for political transparency, especially where interest groups do not have similar access to information or the ability to monitor legislation. In addition, logrolling may not enhance welfare where the electoral system fails to define jurisdictions according to the spillover of public goods.⁷⁸ To the extent logrolling exists, it may also indicate an instability in the bargains reflected in certain legislation as later shifts in coalitions may

75. *Id.*

76. Public Utility Regulatory Policies Act of 1978, Pub. L. No. 95-617, 92 Stat. 3117 (codified as amended at 16 U.S.C. §§ 824a-1 to a-3, 824i-k) (2006).

77. *Id.*

78. Gordon Tullock, *Problems of Majority Voting*, 67 J. POL. ECON. 571, 578-79 (1959).

undermine bargaining that does not have strong overall political support.⁷⁹

At a minimum, however, the existence of logrolling in the context of comprehensive energy legislation highlights the importance to public law of paying careful attention to statutory language in interpreting comprehensive energy legislation. The presence of logrolling cautions that the legislative bargains Congress struck in attempting comprehensive approaches in reaction to high profile events such as the Gulf Crisis may be less stable regulatory solutions for energy markets than approaches at the state and local level, where logrolling is less likely.⁸⁰ It also cautions suspicion with general appeals to statutory purpose in the context of energy legislation absent some specific evidence of legislative purpose. Where the purpose of such legislation is unclear, there are compelling public choice arguments that courts should generally favor the interpretation that would benefit the interest groups that have had the least impact at the national level, such as residential customers or new technologies.⁸¹ As climate change legislation is approached, similar interpretive tools should be applied by courts in addressing ambiguous statutory language.

IV. PUBLIC CHOICE AND ENERGY DEREGULATION

Climate change legislation also cannot ignore that most energy industries have been deregulated in the past three decades. This does not mean, however, that markets prevail in every energy context. Instead, deregulation itself presents a complex maze of regulatory approaches that needs to be integrated into climate change discussions. In a sense, the change in regulatory approach to energy industries represented by deregulation presents a puzzle for public choice theorists. To the extent that the benefits of traditional regulation are narrowly focused on a few interest groups and its costs are diffused among many less powerful interests, a stable equilibrium exists in favor of the status quo of traditional public utility regulation. Under such circumstances, it is puzzling why various interests groups would

79. Dennis C. Mueller, *The Possibility of a Social Welfare Function: Comment*, 57 AM. ECON. REV. 1304, 1307 (1967); R.E. Park, *The Possibility of Social Welfare Function: Comment*, 57 AM. ECON. REV. 1300, 1301 (1967).

80. The constituents of different state legislators face stronger regional commonalities than the constituents of members of Congress from different states. In addition, state legislatures have stronger single-subject requirements than does Congress.

81. See Einer Elhauge, *Preference-Eliciting Statutory Default Rules*, 102 COLUM. L. REV. 2162 (2002).

favor deregulation. If traditional modes of utility regulation were so effective at appeasing various interest groups and coalitions, what might explain the movement away from the traditional regulatory bargain? The answer to this question is complex and will require additional study by economists and political scientists. Public choice insights, however, can provide some perspective on what led to various types of reforms, as well as on the failures and challenges recent reforms will face. They are especially relevant as we approach the issues of how to address climate change in the context of deregulated markets.

A. *Public Choice and the Politics of Deregulation*

A common public choice theme in the politics of regulation is to respond to government failures by embracing market-oriented reforms, such as deregulation. Deregulation typically entails reducing the barriers to entry, determining prices through competition rather than cost of service regulation, and unbundling the constituent service traditionally provided by a vertically integrated firm. However, in the energy context, “deregulation” is a bit of a misleading term, insofar as it implies the complete dismantling of regulatory oversight by government. Pro-market reforms to energy industries such as natural gas and electric power entail a mixture of both market-oriented reforms and new regulatory approaches.⁸² For instance, in both industries, policy makers have moved towards competition in the supply of the energy resource, such as in gas production and electric power generation, but have simultaneously continued to embrace traditional regulation of transmission and distribution networks as natural monopolies.⁸³

Because such restructuring itself reflects a combination of governmental policies, the movement to deregulated energy markets is fundamentally a reflection of shifts in coalition politics.⁸⁴ Public choice theorists have chronicled that private lobbying is focused as much on avoiding government regulation as on trying to influence its substantive content.⁸⁵ Thus, even with respect to completely

82. Severin Borenstein & James Bushnell, *Electricity Restructuring: Deregulation or Reregulation?*, 23 REG. 46, 50-51 (2000).

83. PAUL L. JOSKOW & RICHARD SCHMALENSEE, MARKETS FOR POWER: AN ANALYSIS OF ELECTRIC UTILITY DEREGULATION 11-23 (1983).

84. Peltzman, *supra* note 18.

85. See FRED S. MCCHESENEY, MONEY FOR NOTHING: POLITICIANS, RENT EXTRACTION, AND POLITICAL EXTORTION (1997).

deregulated activities, interest group behavior remains relevant. Because deregulation is itself a political decision regarding the role of government in addressing markets, it is not immune from the same public choice analysis that has been applied to traditional forms of regulation.

For most of the twentieth century, growth and demand for most energy resources were relatively predictable. Consumers were happy because rates declined⁸⁶ and utilities were content with the regulatory bargain that provided them a predictable and stable return on investment.⁸⁷ Restructuring gained momentum due in part to exogenous changes in economic conditions and technology, which created price differentials across various states; such differences in price led to shifts in the political coalitions that previously sustained natural monopoly price regulation.⁸⁸ As Matthew White puts it in his careful empirical study of when states deregulated electricity, “[T]o observe deregulation, the magnitude of the price gap must be sufficiently large that the pressure to bring existing prices into line with the market equilibrium cannot be accommodated within the institutional constraints of the regulatory process.”⁸⁹ Price gaps and cost differentials between different geographic areas changed the incentives for interest groups—consumers and new entrants, such as independent power producers—to look for relief beyond the framework of price regulation by state and local utility commissions.

In addition, for utilities themselves, changes in economic conditions contributed to an erosion of the utility consensus that sustained utility regulation for most of the twentieth century. For instance, from the 1940s through the 1960s, electric power prices declined in both real and absolute terms. Beginning in the 1970s, however, fuel costs began to rise substantially and, when firms sought major rate increases, regulators faced increasing political pressure from consumer and environmental groups to reassess the utility

86. See WILLIAM T. GORMLEY, JR., *THE POLITICS OF PUBLIC UTILITY REGULATION* (1983).

87. SIDAK & SPULBER, *supra* note 27, at 188-90.

88. Of course, ideology played an undeniably important role in these shifting coalitions. Mavericks, such as Robert Crandall in the airline industry, captured the imagination of reform-minded politicians, as well as new incumbents, but deregulation was not merely an issue for one side of the political spectrum.

89. Michael W. White, *Power Struggles: Explaining Deregulatory Reforms in Electricity Markets*, 1996 BROOKINGS PAPERS ON ECON. ACTIVITY: MICROECONOMICS 201 (1996).

consensus, leading to an increasingly adversarial relationship between utilities and rate regulators—particularly in states.⁹⁰

So understood, public choice theory does not merely describe how governmental institutions are inherently unlikely to maximize welfare but can prove helpful to assessing how we structure legal institutions to maximize welfare against the backdrop of such changes. While some political reform efforts that draw on public choice theory see rate regulation as inherently flawed, to the extent it licenses over investment by self-interested firms who have largely captured the agenda of regulators, a broader institutional perspective highlights a different issue altogether. The rate regulation process did not adequately address the economic structure of the firm, and of the industries comprised of firms, and how under different technological and economic conditions services could be more efficiently provided through the marketplace and other institutional arrangements. As incentives for private participants in the regulatory process change, due primarily to changes in technology and economic conditions, some of the tacit coalitions that may have supported a specific institutional arrangement also will change. Interest group coalitions in the industry have changed substantially from the twentieth century utility consensus that sustained rate regulation.

In electric power, for example, at the federal level, when new efficiencies in generation became available and utilities found themselves locked into older technologies, a coalition in favor of competitive reform to wholesale power markets was formed among industrial customers, new entrants such as independent power producers, and large wholesale utilities with high costs. At the same time, deregulation policies at the state level have been more varied, but generally high retail cost conditions in certain geographic areas have led a coalition to develop between large consumers and producers. In both contexts, public choice perspectives highlight how the political coalitions that supported the traditional institutional arrangement are not fixed, but produce benefits if they are modified in response to changes in technology and economic conditions.

As a matter of interest group politics, when the consensus—or regulatory contract—behind natural monopoly regulation began to unravel,⁹¹ stakeholders increasingly looked to Congress and federal

90. John O. Sillin, *The Blackout of 2003: Why We Fell into the Heart of Darkness: The Road to the Current Reliability Crisis Is Paved with Four Decades of Bad Policy Decisions*, 141 PUB. UTIL. FORT. 30, 31-32 (2003).

91. Hirsh, *supra* note 8, at 68-70.

regulators for solutions. Against the backdrop of high fuel prices in the 1970s, Congress passed PURPA as a part of President Carter's energy plan, which fueled the growth of new entrants in power generation, known as cogeneration facilities. PURPA spawned the growth of a significant independent power producer sector, which challenged incumbent utility market power in electric power generation. Congress again expanded efforts to develop power markets when it passed the Energy Policy Act of 1992, expanding FERC's authority to mandate transmission access.⁹² FERC began to explore mechanisms for introducing competition to wholesale generation markets, culminating in the adoption of Order No. 888 in the mid-1990s, which mandated access to transmission for wholesale power supply markets.⁹³ Such federal policies encouraged the growth of independent power producers and have led to the proposal of merchant power plants and some new transmission lines across the nation as well.

Meanwhile, many states also began to experiment with retail deregulation. Due to the incentives created by PURPA and technological innovations, independent power producers began to proliferate in the 1980s. As new entrants entered the industry, the limits of state-maintained price regulation became more obvious. Cost of service regulation may have worked well to align consumer interests when prices were decreasing, but when costs began to increase, consumers were no longer a single homogenous interest group but began to splinter into different interest groups reflecting differing usage patterns and price elasticities—such as industrial, commercial and residential consumers. In some states that deregulated, like California, large industrial customers lobbied heavily for low cost power, demanding reforms to the traditional state approach to regulating electricity prices, while residential consumers generally opposed deregulation. As David Spence emphasizes, “[I]ndustrial retail customers with large, stable loads pushed for restructuring to free themselves from the subsidy they paid to residential (and to a lesser extent, commercial) customers under traditional rate structures.”⁹⁴

92. Energy Policy Act of 1992, Pub. L. No. 102-486, 106 Stat. 2776 (amending the Federal Power Act, 16 U.S.C. § 824(j-k) (1992)).

93. Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities, 61 Fed. Reg. 21,540 (May 10, 1996) (codified at 18 C.F.R. pts. 35 and 385).

94. David B. Spence, *Can Law Manage Competitive Energy Markets?*, 93 CORNELL L. REV. 765, 791 (2008).

The practical economic consequence of state-side deregulation was exacerbated by the significant price differentials that emerged across states by the mid-1990s. Fuel costs began to rise drastically in the 1970s. Over time, states had adopted different mixes of power generation (ranging from hydroelectric, to natural gas, coal, and expensive nuclear plants) and had made a wide range of commitments to approve the building of plants during periods using different size and technological assumptions. Consequently, the costs of power generation differed drastically from state to state, varying from around \$.02 per kilowatt hour to over \$.08 per kilowatt hour. As one economist describes it:

Changes in the economics of power generation have undercut the cost structure of incumbents to the point where the costs of small-scale entry into the power generation business are well below the average costs of many incumbent utilities. The result is a substantial increase in the opportunity cost of statutory entry barriers and political pressure on regulators to close the price gap. In high-cost states the magnitude of the price gap suggests fairly strong incentives for consumers to press for regulatory changes, and deregulatory reforms are the natural result.⁹⁵

The price gap was not only a differential between new supply entrants and incumbents. Entrants often had some ability to purchase power on the wholesale market at a fraction of the cost of generating their own on-system power, but the incumbent was frequently locked into long-term contracts or, even it was not, faced little incentive to procure power at a more competitive cost since it owned its own generation facilities and stood to benefit by expanding its generation rather than opening transmission to new entrants.

New entrants certainly had an impact on the unraveling of the utility consensus, but their power in the reform process was bolstered by the decline of the homogenous public utility firm which typically operated in a single state jurisdiction. By 1990, even the incumbent utility firms in the industry were no longer homogenous. Due to mergers in the industry, many utilities operated in multiple states. While some operated their own systems to allow generation to act as a substitute for transmission, others possessed excess transmission capacity and relied on off-system generation procured through wholesale market transactions. The former generally opposed competitive reforms, while the latter embraced them. Utilities

95. White, *supra* note 89, at 230.

increasingly merged to bolster their efficiency and market position, including their control over transmission.

Together, new entrants without service obligations (such as independent power plants and merchant facilities), large industrial customers demanding lower cost power, and utilities possessing excess transmission capacity forged an informal alliance favoring reforms to the industry. A large focus of this effort involved looking to federal regulators for a consistent national policy that would overcome the equilibrium of the state-centered natural monopoly model and stabilize the disequilibrium of heterogeneous regulatory approaches between states. Apart from isolated incumbent utilities, only residential consumers and environmental interest groups, both of whom benefited from the taxation allowed by the old locally run system, continued to prefer the traditional approach. This newly aligned set of interests led to demand for many new regulatory approaches, including the possibility of a new system of federal regulation.

“Deregulation” was co-opted by the reform coalition as a nonthreatening way to package these restructuring efforts, many of which (contrary to the decentralized ideals of deregulation) involved substantial increases in federal authority over certain parts of the industry. Yet at best the reform coalition favoring deregulation of electric power was a loose one. It has had modest success in influencing FERC (which signed onto most of its agenda by the mid-1990s), but has failed to garner sufficient support for clear congressional action on many important issues in energy markets. Thus, imperfect as localism may be, state and local regulation remain an essential component of the process in which competitive markets are being implemented in the United States.

Deregulation also led to substantial changes in the firm and industry-wide structure of the electric power industry. The traditional utility was a vertically-integrated natural monopoly, typically legally sanctioned to operate as a monopolist within a geographically-defined service territory. Beginning with technological innovation in the 1980s and continuing through the 1990s, however, the generation sector of the electric power industry increasingly came to be recognized as structurally competitive.⁹⁶ Today, it is no longer considered economically efficient for a single firm to provide power generation. Most markets can efficiently sustain two or more firms generating electric power. In recent years, the generation sector of the industry

96. JOSKOW & SCHMALENSEE, *supra* note 83, at 11-23.

has grown remarkably and is currently seen as competitive in nature. New firms, such as independent power producers and merchant plants compete aggressively with incumbent utilities in many markets. Rate regulation of generation has largely been abandoned in wholesale power markets (regulated at the national level) and many states have begun to deregulate the prices of retail generation as well. While prices have largely been deregulated in the United States, many states actively continue to regulate the environmental aspects of locating, or siting, power generation, and emissions remain heavily regulated at the federal and state levels. In larger power markets in the United States, there may be dozens of options for purchasing electric power. Small consumers may not have these options to the extent a state has not deregulated its retail markets, but utilities have them and they are increasingly available to large industrial customers as well.

By contrast—and presenting a particular challenge for regulatory law—the transmission and distribution sectors of the industry continue to be seen as natural monopolies. Previously, transmission and distribution were often (but not always) provided by the same, vertically-integrated firm, but today they are more frequently disentangled. A local distribution utility often provides distribution to the end use retail customer, while transmission is frequently provided by a larger, multistate utility. Both transmission and distribution continue to be heavily regulated. Although there is some jurisdictional overlap, transmission prices are most extensively regulated by the federal government through the FERC, while distribution prices are regulated most extensively by the states. Transmission and distribution continue to be considered classic network infrastructure networks, physical access to which will be essential for competition to thrive. FERC may regulate many transmission access and pricing issues, but many issues relating to transmission infrastructure (including whether to build and where to locate it) and nearly all issues regarding power distribution remain entirely within the jurisdictional realm of state and local regulators. In 2005, Congress expanded FERC's authority over power transmission, but transmission remains a serious concern for both competitive wholesale markets.⁹⁷ Recently, the United States Court of Appeals for the Fourth Circuit interpreted FERC's new authority narrowly, not allowing it to exercise jurisdiction over

97. For a discussion of the barriers presented by the state transmission siting process, see Ashley C. Brown & Jim Rossi, *Siting Transmission Lines in a Changed Milieu: Evolving Notions of the 'Public Interest' in Balancing State and Regional Considerations*, 81 COLO. L. REV. (forthcoming 2010).

applications for transmission siting that had been denied by state regulators within one year.⁹⁸ It is also well recognized that climate change goals will require expanded federal authority, given the distance between many renewable resources—like wind—and large customer bases.⁹⁹ But expanding federal authority alone over transmission is not likely to solve problems faced by renewable power developers. New transmission facilities could easily become a Trojan horse for lower cost sources of power, such as coal, as lower cost resources are favored given the deregulated wholesale markets. Approaches to climate change must be designed to work within, rather than against, the deregulated wholesale market, by finding ways to encourage investment in transmission infrastructure to address new power sources while simultaneously recognizing that open access will require carbon-neutral approaches to transmission cost allocation pricing.¹⁰⁰

B. Government Failure Versus Market Failure in Evaluating Market-Oriented Energy Policies

In summer 2003, a massive blackout left fifty million customers throughout much of the Northeast and portions of the Midwest without electric power. The blackout affected an area extending from New York, Massachusetts, and New Jersey west to Michigan, and from Ohio north to Toronto and Ottawa, Ontario. The economic costs it imposed are staggering.¹⁰¹ Media accounts were quick to blame the blackout on deregulatory policies the electric power industry adopted through the 1980s and 1990s.¹⁰² However, there is little reason to expect traditional rate regulation would have fared better in avoiding the 2003 blackout. Moreover, while intuitively appealing, efforts to

98. *Piedmont Env'tl. Council v. Fed. Energy Reg. Comm'n*, 558 F.3d 304, 309-10 (4th Cir. 2009).

99. *See Hearing on Legislation Regarding Electric Transmission Lines Before the Comm. on Energy and Natural Resources*, 111th Cong. (2009) (testimony of John Wellinghoff, Acting Chairman, Federal Energy Regulatory Comm'n).

100. For discussion, see Jim Rossi, *The Trojan Horse of Transmission Line Siting Authority*, 40 ENVTL. L. (forthcoming 2010).

101. *See* ELECTRICITY CONSUMERS RESOURCE COUNCIL, *THE ECONOMIC IMPACTS OF THE AUGUST 2003 BLACKOUT* (2004), <http://www.elcon.org/Documents/EconomicImpactsOfAugust2003Blackout.pdf>. Some estimated the costs of the 2003 blackout to be as high as \$5 billion. Nancy Gibbs, *Lights Out*, TIME, Aug. 25, 2003, at 30.

102. On one account, "The current industry-centered deregulation of the national power grid has created market-driven chaos, with electric bills skyrocketing as high as 300 percent in California while power systems become less and less reliable—all at a time when the shrinking cost of renewable energy should be providing lower costs and a more reliable system." Michael I. Niman, *Why the Lights Went Out*, HUMANIST, Nov. 1, 2003, at 4.

blame deregulation for the problem fail utterly to explain *the mechanism* by which deregulation policies might have contributed to the problem. Public choice insights help in unraveling this mechanism.

As the California deregulation debacle illustrates, the policies pursued in furtherance of deregulation itself are often the result of private self-interest's influence on governmental decision makers rather than sound economic policy. At both the federal and state levels, deregulation policies have been supported by a new political coalition that includes large industrial consumers as well as utility producers, particularly new entrants. However, various policy compromises at both federal and state levels have produced some seriously suspicious deregulation policies and, in many instances, these policies are to blame for failures in the operation of deregulated markets. In other markets, the failures with deregulation may have as much to do with the political choices that are being made in adopting pro-market reforms as with markets themselves.

The popular press's account of deregulation's failure in the energy context is that the dismantling of government regulation coupled with enhanced competition between firms led to predatory market conduct by private firms that harmed consumers. In California's newly deregulated electric power market in the late 1990s, energy supply firms were able to manipulate supply and prices, seeking short-term gain at a cost to consumers.¹⁰³ Similarly, in deregulated wholesale power markets (structured primarily by federal as opposed to state regulators), private greed is seen as contributing to a serious shortage in generation supply and transmission capacity, exacerbating the blackouts that left New York City and much of the northeastern United States in the dark in summer 2003.¹⁰⁴ On this account of deregulation's weakness, private greed in the marketplace is the core cause of failures in the transition to competitive markets.

Public choice insights illustrate how this account fails to present the full story. For example, the failure of electric power deregulation in California was as much a consequence of ill-conceived government competition policies advocated by reform-oriented interest groups as it

103. Jacqueline Long Weaver, *Can Energy Markets Be Trusted? The Effect of the Rise and Fall of Enron on Energy Markets*, 4 HOUS. BUS. & TAX L.J. 1, 71 (2004).

104. Matthew L. Wald, *A Question Still Unanswered: How Did the Blackout Happen?*, N.Y. TIMES, May 10, 2004, <http://www.nytimes.com/2004/05/10/business/10blackout.html> (quoting Robert Blohm, an electricity consultant questioning whether deregulation impaired reliability and caused the blackout to spread).

was a consequence of private greed in deregulated markets. Like most deregulated markets, California's plan to deregulate retail electric power did not completely dismantle government regulation. Instead, it emphasized new types of regulation, such as a state-supervised power pool that prohibited certain types of transactions and sanctioned others. Wholesale power supply markets, largely deregulated by the federal government in the 1990s, before California's retail market opened, are subject to market-based supply decisions by private firms and large price swings. California retail power suppliers, on the other hand, were subject to a price cap imposed by state lawmakers¹⁰⁵ and were also prohibited from using long-term contracts to serve retail customers.¹⁰⁶ These policy choices by California lawmakers reflected a compromise designed to protect consumers. Due to the state-imposed price cap, California utilities were precluded from passing on their costs to customers, forcing them to absorb monumental losses in highly volatile short-term supply markets when wholesale power prices skyrocketed. Several electric power utilities in the state—previously considered risk-free investments under the traditional regulatory compact—went bankrupt. Undoubtedly, state policy decisions in California to cap retail prices and prohibit long-term contracts were influenced by strategic lobbying and other regulatory maneuvers on the part of private stakeholders in the California lawmaking process. Private manipulation of government regulation is as significant as, and may even eclipse, private abuse of competitive markets as the cause of California's failed approach to electric power deregulation.

Public choice themes also can inform regulatory failures in addressing the issue of transmission access and reliability—perhaps the greatest problem competitive markets in electric power will face in the coming decade. The massive blackout in summer 2003 left large portions of the Northeast and Midwest without power due to a cascading failure of the interstate transmission grid. The 2003 blackout may have been triggered by individual negligence (and perhaps even greed, though that is doubtful), but private behavior in the market was certainly not the immediate reason the blackout spread from Ohio, where it is widely reported the initial event leading to the

105. Jim Rossi, *The Electric Deregulation Fiasco: Looking to Regulatory Federalism To Promote a Balance Between Markets and the Provision of Public Goods*, 100 MICH. L. REV. 1768, 1769 (2002); Paul L. Joskow, *California's Electricity Crisis*, 17 OXFORD REV. ECON. POL'Y 365, 366 (2001).

106. See Severin Borenstein, *The Trouble with Electricity Markets: Understanding California's Restructuring Disaster*, 16 J. ECON. PERSP. 191, 201 (2002).

blackout occurred, to New York and other states. Consequences were made far worse for areas like New York City due to both public and private failures to expand transmission facilities over several decades. These failures were influenced by regulatory decisions as much as by deregulation itself. As one author observes, “Electricity consumption increased by 35 percent in the 1990s alone (and is twice the level of the early 1970s), with transmission carrying capacity increasing by only 10 percent.”¹⁰⁷

Private utilities—owning both transmission, a natural monopoly network, and generation, which is competitive—frequently resist the expansion of transmission where it is not in the interest of their profits, and the regulatory process has failed to create adequate incentives to expand this crucial network facility against the will of this strong private interest group. Their influence is magnified, perhaps even masked, by environmental interest groups, who are allied with powerful incumbent firms in favoring state and local regulation of the industry. For example, the state of Connecticut strongly opposed the Cross-Sound Cable, a twenty-three-mile merchant transmission line that would allow Long Island Power Authority to import power from New Haven, Connecticut. Connecticut regulators cited environmental concerns in support of their opposition to the project, such as impacts on shellfish beds and dredging operations into the New Haven Harbor, but the project complied with all state siting and environmental statutes. Backed by environmental interest groups and a major incumbent utility serving Connecticut customers (Northeast Utilities, which owns an older, parallel transmission line), Connecticut’s Attorney General threatened litigation if the Cross-Sound line was allowed to go live, delaying the project’s operation for several years.¹⁰⁸ As electric power transmission illustrates, the behavior of private stakeholders is not only relevant in the market sphere, but also to the regulatory process that implements the constitutive governance of deregulated markets. And, as in the case of California’s deregulation plan, prior to the 2003 blackout, interactions between governments were a major impediment to the expansion of transmission. Longstanding jurisdictional conflicts and gaps left both state and federal regulators unable to take action to expand transmission.

With deregulation, new coalitions are clearly influencing governmental policies, providing a fertile ground for how even pro-

107. Sillin, *supra* note 90, at 30-31.

108. Bruce W. Radford, *Cross-Sound Cable Puts Feds on the Spot*, FORT. SPARK, June 2004, at 2.

competition policies are motivated by interest group behavior. California illustrates how industrial consumers can join other consumers and new entrants to advocate for competition. State opposition to new transmission lines illustrates how environmental groups and incumbent utilities may join forces to oppose new infrastructure. Study of emerging new political coalitions in energy industries by public choice theorists holds some promise to shed light on the approach and success (or failure) of new deregulatory policies.

It also will hold important implications for climate change. Cap and trade approaches to carbon emissions regulation recognize the advantages of tradable allowances in allowing market mechanisms to work with broader emissions mandates. Ideally, this will allow flexibility and efficiency in complying with governmental mandates. However, the European approach to cap and trade is largely seen as a failure, given that powerful interest groups were able to lobby for exceptions.¹⁰⁹ As Congress is considering approaches to limit carbon emissions, such as cap and trade, it must be recognized that there is a need to protect against interest group manipulation of trading rules. Assigning such a program to an independent agency such as FERC, rather than EPA, could have important advantages.

C. New Challenges for Public Law in Energy Markets

Since the prevailing regime at both the federal and state level is a mixture of markets and regulation, public law remains relevant to the operation of new energy markets. Public choice theory also provides important insights for public law as it confronts the many issues presented by restructured energy markets. Two cutting edge issues for further public choice study include the potential abuse of the filed rate doctrine by private firms to manipulate regulatory enforcement in deregulated markets and the role of the dormant commerce clause in restoring a reciprocal balance in the imposition of state regulation.

1. Filed Rate Doctrine

Under the longstanding filed rate doctrine, courts refuse to adjudicate antitrust, contract and other private claims in instances where a firm has an approved rate, known as a “tariff,” on file with a federal or state regulator. For example, rate regulated utilities routinely

109. James Kanter & Jad Mouawad, *Pipe Dreams and Profits*, N.Y. TIMES, Dec. 11, 2008, at B1 (describing successful efforts by European lobbyists to exempt many polluters from cap and trade requirements).

filed their rates with state and federal regulators, and following evaluation of the actual cost of service these are routinely approved by regulators. Under the filed rate doctrine, a utility with a filed rate is prohibited from offering customers rebates and discounts that are at odds with the filed tariff, which historically reflected a regulator's careful evaluation and affirmative approval of costs and prices.¹¹⁰

Under traditional cost of service regulation, there was some suspicion that energy utilities may have manipulated their rate filings to their strategic advantage. For example, rate-regulated firms may have requested more than they actually needed to cover their costs of operation; by manipulating the timing of their requests in response to agency workloads and other political factors that influence the likelihood of approval,¹¹¹ they used the rate filing process to their advantage even under cost of service regulation. With competitive restructuring of utilities, in which markets rather than regulators will be the primary determinants of the price of power supply, it has been observed that applying the filed rate doctrine to preclude antitrust enforcement and other legal claims is akin to pounding "a square peg into a round hole."¹¹² However, as industries such as electric power and telecommunications have been competitively restructured, courts have continued to heed the filed rate doctrine, refusing to address the merits of many contract, tort, and antitrust claims against firms in newly restructured energy markets.

One of the cases that illustrates the broad scope—and potential cost—of the filed rate doctrine for the operation of deregulated energy markets involved a price squeeze claim by a municipal utility in Massachusetts against New England Power Company, alleging, among other claims, that the defendant offered the city's affiliates preferential treatment as customers over Norwood.¹¹³ FERC had purportedly approved these terms as "just and reasonable" as a part of New England Power Company's restructuring plan, which included approval of market-based tariffs; since both tariffs were on file with FERC, the United States Court of Appeals for the First Circuit invoked the filed rate doctrine as a complete bar to the price squeeze claim. As the court

110. The leading case in establishing the filed rate doctrine is *Keogh v. Chicago & Northwest Railway Co.*, 260 U.S. 156, 161-65 (1922).

111. Heather E. Campbell, *The Politics of Requesting: Strategic Behavior and Public Utility Regulation*, 15 J. POL'Y ANALYSIS & MGMT. 395, 408-09 (1996).

112. Richard Stavros, *Lost in Translation: Critics Say FERC's Filed Rate Doctrine Is Wrong for the Times*, 142 PUB. UTIL. FORT. 4, 7 (2004).

113. See *Town of Norwood v. New England Power Co.*, 202 F.3d 408, 418 (1st Cir. 2000).

reasoned, “It is the *filing* of the tariffs, and not any affirmative approval or scrutiny by the agency, that triggers the filed rate doctrine.”¹¹⁴ Because “the rationale for the filed rate doctrine is to protect the exclusive authority of the agency to accept or challenge such tariffs,”¹¹⁵ the First Circuit concluded that “this is not a case that calls out for revisiting the filed rate doctrine or for strenuous efforts to carve out exceptions.”¹¹⁶

Federal courts continue to endorse the filed rate shield vigorously, keeping competitor and consumer claims almost completely out of the hands of both state regulators and federal courts.¹¹⁷ For example, United States Court of Appeals for the Ninth Circuit applied the filed tariff doctrine to imply federal preemption of the California governor’s effort to protect consumers against strategic manipulation of its deregulated power market.¹¹⁸ In the court’s view, “interstate power rates filed with FERC . . . must be given binding effect” by state regulators, even when regulating in areas subject to state jurisdiction.¹¹⁹ Thus, the court stated with a sweeping confidence, “FERC-approved rates preempt conflicting regulations adopted by the States.”¹²⁰

Public choice themes reveal how the filed rate doctrine not only influences the course of litigation after a tariff has been filed with regulators, but also creates incentives that can influence the private behavior of regulated firms in interacting with regulators before litigation commences. Specifically, by encouraging strategic filing of tariffs with regulators to preempt litigation, the filed rate doctrine may encourage a type of forum-shopping behavior by private firms in the regulatory process before actual litigation commences.¹²¹ Institutionally, agencies and courts have never been effective at monitoring the process of filing rates and other tariffs as a private forum-shopping strategy. Although many question the effectiveness of rate regulation, this may have been a moderately stable state of affairs with cost of service regulation, given routine regulatory proceedings that served as some safeguard for public values. However, with the

114. *Id.* at 419.

115. *Id.* at 420 (citing *Ark. La. Gas Co. v. Hall*, 453 U.S. 571, 577-78 (1981)).

116. *Id.* at 421.

117. Jim Rossi, *Lowering the Filed Tariff Shield: Judicial Enforcement for a Deregulatory Era*, 56 VAND. L. REV. 1591, 1638 (2003).

118. *Duke Energy Trading & Mktg., L.L.C. v. Davis*, 267 F.3d 1042, 1058 (9th Cir. 2001) (quoting *Nantahala Power & Light Co. v. Thornburg*, 476 U.S. 953, 962 (1986)).

119. *Id.*

120. *Id.* at 1056 (citing *Nantahala Power & Light*, 476 U.S. at 962, 966).

121. Rossi, *supra* note 117, at 1596.

introduction of competition to formerly regulated industries and other regulatory transitions, market norms are emerging to expose a gap in regulatory agency ability to deter wrongdoing by private firms. To the extent the filed rate doctrine encourages strategic manipulation of the tariffing process to foreclose judicial enforcement, it widens this gap and may even result in more radical deregulation than either Congress or agencies intend: essential firms may be able to elect to operate in markets without any antitrust, contract and tort protections.

Political scientists and economists have begun to analyze how interest groups, including regulated firms, decide to allocate their resources regulation, congressional, agency, or judicial.¹²² Because it has unique implications for the behavior of regulated firms, the filed rate doctrine is a worthy candidate for similar analysis. Because the doctrine is only available on a widespread basis if a utility has filed its tariff with federal regulators, the doctrine creates a strong ex ante incentive for private firms, such as regulated utilities, to invest more heavily than otherwise in lobbying regulators to accept or approve tariffs. By engaging in such conduct ex ante, private firms can avoid the uncertainty of an ex post judicial proceeding in which courts enforce antitrust, tort, or contract law. The doctrine thus encourages a type of forum shopping, triggered primarily by private decisions to provide information in the regulatory process. If a private firm desires the protection of the filed tariff shield—immunity from antitrust and state common law suits for its market behavior—it has a strong incentive to divulge information (especially ambiguous information) to regulators ex ante, in anticipation that this information will be included in published tariffs and will minimize unpredictable, ex post judicial meddling.¹²³ Where there is no check on the accuracy, clarity and relevance of the information firms are submitting in the regulatory process with tariff filings, opportunities for manipulation of regulation—and in particular institutional choice—are presented.¹²⁴ To the extent regulated firms engage in strategic conduct ex ante, an

122. See John M. de Figueiredo & Rui J.P. de Figueiredo, Jr., *The Allocation of Resources by Interest Groups: Lobbying, Litigation and Administrative Regulation*, 4 BUS. & POL. 161 (2002); Paul H. Rubin et al., *Litigation Versus Legislation: Forum Shopping by Rent Seekers*, 107 PUB. CHOICE 295 (2001).

123. See Rossi, *supra* note 117, at 1617.

124. Using more formal modeling, commentators warn of similar behavior in other information-disclosure contexts, such as intellectual property licensing (see Douglas Lichtman, Scott Baker & Kate Kraus, *Strategic Disclosure in the Patent System* 1 (U. Chi. L. & Econ., Olin Working Paper No. 107, 2000), available at <http://ssrn.com/abstract=243414>) or drug approval and merger applications (Tracy Lewis & Michael Poitevin, *Disclosure of Information in Regulatory Proceedings*, 13 J.L. ECON. & ORG. 50 (1997)).

institutional bias in favor of regulatory agencies—and away from courts and markets—is likely to result.

In the context of asymmetric information disclosure of nonverifiable information in contractual bargaining, Eric Talley has observed a need for judicial monitoring or verification.¹²⁵ Typically, the balance between disclosure on the one hand, and institutional decisions to regulate on the other, is monitored by the oversight of a third party who has the ability to protect the public interest. For example, in the context of tort litigation, securities regulation, and witness immunity from criminal prosecution, each of which use information disclosure to influence regulatory choices, third party oversight plays an important role in monitoring the divulgence of information to ensure that the choice is welfare-enhancing. In the context of many price-regulated industries, however, third-party monitoring of strategic disclosure is ineffective. Third-party monitoring of information disclosure in utility regulation would depend on the actions of either regulators, as in the context of the Securities and Exchange Commission (SEC), or courts, as in the context of criminal immunity. To the extent that the filed rate doctrine applies, however, both regulators and courts have been ineffective at policing this balance *ex ante* to ensure that the application of the shield is not harmful to social welfare *ex post* in the utility regulation context.

As regulators have moved towards restructured markets, and away from cost of service regulation, agencies have tended to acquiesce in, rather than seriously scrutinize or refuse, tariff filings. In fact, filed tariffs often become effective by operation of law after the passage of time, with little or no scrutiny by agencies. So the filed tariff bar curiously aligns the incentives of both private firms and regulators to include as many terms and conditions as possible in tariffs—even when these terms and conditions are a sham, in the sense that agencies often lack the power to enforce them seriously. This is not as much of a problem with cost of service regulation, because tariffs are subject to potential adjudication in a hearing. With restructuring, however, tariffs are frequently accepted without such scrutiny, presenting the potential for a new kind of private manipulation of the regulatory process.¹²⁶ Given the principles of deference courts have provided to regulators in the late twentieth

125. Eric Talley, *Disclosure Norms*, 149 U. PA. L. REV. 1955, 1993 (2001).

126. As is noted below, in many instances statutory limits on a regulatory agency's jurisdiction further limit the ability of agency evaluation of tariffs to serve as a safeguard on the forum effects of disclosure in private tariffing.

century,¹²⁷ the judiciary has played a very small role in policing private behavior in the tariffing process and its relationship to the filed tariff shield.

There are two possible solutions to this problem. One is for agencies to take a more rigorous role in evaluating and enforcing tariffs in competitively restructured energy markets, although this is a solution that may require congressional action to enhance the authority of agencies and to boost their enforcement budgets. Alternatively, in evaluating the filed rate defense in antitrust and other legal proceedings involving deregulated firms, courts should more effectively monitor the application of the filed rate doctrine to determine whether an agency has meaningfully reviewed the tariffs at issue.¹²⁸ Such review becomes increasingly important as the number and range of suppliers increases, as is expected with significant new investment in renewable supply of electricity.

2. Skepticism About New Forms of Anticompetitive State Regulation

With competitive restructuring of industries such as electric power and natural gas in the United States, jurisdictional tensions between federal and state regulation have increasingly arisen. In the context of electric power, federal regulators have unabashedly embraced a pro-competitive approach to the wholesale power supply market. Some states, such as Texas, have deregulatory policies with respect to the retail market, but others such as Florida remain highly regulated. Today the approach of states (which have substantial jurisdiction over retail transactions) is probably best described as a patchwork of different solutions. Previously, any tension between federal and state regulation (and between individual states) was largely hidden, as firms frequently operated within the jurisdiction of a given state, and state and federal regulatory policies were consistent, but deregulation of wholesale power supply markets brings it to the fore with a divergence of approaches among states.

One particularly important challenge deregulated energy markets present to state and local governments is how state siting statutes (which provide some state process for approval of new power plants and transmission lines) will coexist with competitive national

127. Lisa Schultz Bressman, *How Mead Has Muddled Judicial Review of Agency Action*, 58 VAND. L. REV. 1443, 1464-69 (2005); Goldsmith, *supra* note 51, at 256; Pierce, *supra* note 47, at 2032.

128. Rossi, *supra* note 117, at 1596.

wholesale markets in electric power. Another difficult issue is state renewable portfolio standards, which are sometimes combined with renewable credits, allowing a supplier that produces more renewable power than they need to meet the standard to sell credits and firms that produce less than they need to purchase renewable power credits. Operationally, such credits can be sold and purchased on a market, but the kinds of power supply that qualify for credits currently vary substantially from state to state. States and localities providing favorable treatment to their indigenous forms of generating renewable power, primarily for purposes of encouraging economic development of this sector of the economy, may subsidize their local firms at a greater level than out-of-state firms.

Public choice provides a useful framework to help courts determine when state regulation thwarts the interstate market. Many have suggested that the neoclassical account of the dormant commerce clause—as a legal source of free trade policies between the states—is flawed.¹²⁹ An alternative view understands the dormant commerce clause not as inherently protecting competition itself, let alone free markets, but as protecting a political process that makes markets possible. For instance, in *West Lynn Creamery, Inc. v. Healy*, the Supreme Court struck down a Massachusetts tax and rebate scheme for milk, even where the tax operated neutrally without regard to the milk's place of origin, but where tax revenue went into a subsidy fund and was distributed solely to Massachusetts milk producers.¹³⁰ In writing for the majority, Justice Stevens embraced a political process account of the dormant commerce clause. As Justice Stevens remarked in striking down the tax and subsidy regime in *West Lynn Creamery*:

Nondiscriminatory measures, like the evenhanded tax at issue here, are generally upheld, in spite of any adverse effects on interstate commerce, in part because “the existence of major in-state interests adversely affected . . . is a powerful safeguard against legislative abuse.” However, when a nondiscriminatory tax is coupled with a subsidy to one of the groups hurt by the tax, a State's political processes can no longer be relied upon to prevent legislative abuse, because one of the in-

129. See Julian N. Eule, *Laying the Dormant Commerce Clause To Rest*, 91 YALE L.J. 425 (1982); Steven G. Gey, *The Political Economy of the Dormant Commerce Clause*, 17 N.Y.U. REV. L. & SOC. CHANGE 1 (1989-90); Paul E. McGreal, *The Flawed Economics of the Dormant Commerce Clause*, 39 WM. & MARY L. REV. 1191 (1998).

130. *W. Lynn Creamery, Inc. v. Healy*, 512 U.S. 186, 188 (1994).

state interests which would otherwise lobby against the tax has been mollified by the subsidy.¹³¹

Rather than inherently protecting competition and free markets, the purposes of dormant commerce clause doctrine can be understood within the framework of Madisonian democracy as well as efficiency—specifically, limiting welfare reducing interest group rent seeking in the state regulatory process.

This account of the dormant commerce clause is consistent with public choice insights. The compact clause of the Constitution prevents states from entering into bilateral or multilateral agreements absent congressional approval.¹³² Even absent formal agreement under the compact clause, states may informally undertake a coordinated pro-commerce regime. In this scenario, a single state—or powerful interest groups within a single state—may seek to appropriate rents by enacting legislation that is intended to defeat the coordinated regime. Individual state defectors can cause a divergence between ex ante and ex post expectations in maintaining the implicit contractual norm of market exchange between the states.

Drawing from this basic account of interstate coordination, Paul McGreal has argued that the dormant commerce clause is best understood as a solution to a defection prisoner's dilemma, where individual states (as well as the interest groups that demand state regulation) stand to gain by defecting rather than cooperating with market exchange norms.¹³³ Maxwell Stearns takes this argument a step further, presenting the coordinated norm of competition as a type of Nash equilibrium; this explains why only certain kinds of rent seeking are condemned under the dormant commerce clause.¹³⁴ As he argues, an individual state's effort to enact regulations, tariffs, or subsidies that are designed to appropriate the gains of the pro-commerce regime is not consistent with a Nash equilibrium. A court striking state legislation under the dormant commerce clause "facilitates a benign multiple Nash equilibrium game, one that presumptively takes strategies inducing a mixed-strategy equilibrium outcome off the table, but that also effectively ratifies the choice of the early movants

131. *Id.* at 200 (citing *Minnesota v. Clover Leaf Creamery Co.*, 499 U.S. 456, 473 n.17 (1981), and other cases) (citation omitted).

132. U.S. CONST. art. I, § 10, cl. 3 ("No State shall, without the Consent of Congress . . . enter into any Agreement or Compact with another State.").

133. See McGreal, *supra* note 129, at 1200-01.

134. Maxwell L. Stearns, *A Beautiful Mend: A Game Theoretical Analysis of the Dormant Commerce Clause Doctrine*, 45 WM. & MARY L. REV. 1, 11-12 (2003).

followed by other states.”¹³⁵ The Supreme Court’s dormant commerce clause jurisprudence values commonality in market norms between the states over any individual state’s particular regulatory choice. As Maxwell L. Stearns notes:

In effect the Court tells the state whose law is under review that while the states are free to choose any of two or more available pure Nash equilibrium outcomes, individual states are not free, after a common regime is in place, to supplant other states’ pure Nash equilibrium outcome with a mixed-strategy equilibrium, at least absent a sufficient demonstration that the nonconforming state’s motivation is other than to disrupt a pure Nash equilibrium strategy.¹³⁶

Unlike the much-caricatured public choice critique, which condemns all state and local rent-seeking as capture of regulation, the political process account of the dormant commerce clause targets only those rent-seeking laws that restrain commerce pursuant to implicit or explicit norms between other states. The state political process allows states, like Congress, to adopt rent-seeking legislation, in the form of regulation, subsidies, and taxes. However, an individual state cannot enact a law that undermines a desirable pro-commerce regime that has been put into place through the implicit or explicit cooperation of states, any more than it can undermine a pro-commerce regime adopted formally by Congress or a federal agency (under the preemption clause).

As an illustration, in the context of deregulated wholesale power markets individual states frequently face strong incentives to defect in order to protect firms in their own internal market, such as local utilities. Several states have adopted moratoria on exempt wholesale generators, or have limited the siting of such plants to in-state utilities only. Florida’s Supreme Court, for example, has interpreted a state power plant siting statute to limit plant siting to those suppliers who are Florida utilities or who have contracts with Florida utilities.¹³⁷ Effectively, this has prevented merchant power plants from siting in Florida for purposes of entering the interstate market. Perhaps taking a cue from Florida’s success in blocking the development of new wholesale power plants that do not directly serve in-state customers,

135. *Id.* at 12 (footnote omitted).

136. *Id.*

137. *Tampa Elec. Co. v. Garcia*, 767 So. 2d 428, 435 (Fla. 2000) (holding that state’s power plant siting statute “was not intended to authorize the determination of need for a proposed power plant output that is not fully committed to use by Florida customers who purchase electrical power at retail rates”).

many other state and local governments, particularly in the southeastern United States, have imposed moratoria on merchant plants.¹³⁸

States have also attempted to prohibit the siting of merchant interstate transmission lines necessary for reliable wholesale power supply markets. For example, Connecticut was strongly opposed to the Cross-Sound Cable, a twenty-three-mile merchant transmission line allowing Long Island Power Authority to import power from New Haven, Connecticut. Connecticut extended to two years its moratorium on the siting of new, expanded transmission line across Long Island Sound.¹³⁹ Northeast Utilities, a major investor-owned utility whose customers reside primarily in Connecticut (and which also services customers in Massachusetts and New Hampshire), owns an older, competing transmission line that runs parallel to the Cross-Sound Cable and supports expanding that facility over the new transmission line. Connecticut's Attorney General, backed by environmental interest groups and Northeast Utilities, threatened litigation, instead favoring expansion of the existing transmission line.¹⁴⁰ Eventually, this transmission line became operational, but expansion of transmission access to locations such as New York City would have provided important capacity, and may have helped in absorbing some of the transmission shortages that exacerbated the summer 2003 blackout.¹⁴¹ However, to the extent transmission remains entirely within the control of local, rather than national, regulators, states have strong incentives to protect their own incumbent firms or citizens, rather than supporting interstate cooperative market norms. Only when FERC threatened to preempt the states and mandate operation of the Cross-Sound transmission line did Connecticut concede its position and allow the line to operate.¹⁴²

138. Chris Deisinger, *The Backlash Against Merchant Plants and the Need for a New Regulatory Model*, 13 *ELECTRICITY J.* 51 (2000); *Nervous of NOx, Southern Govs. Put Plants on Hold*, *ELECTRICITY DAILY*, Aug. 28, 2001, at 40; *State Limits on Merchant Plants a Growing Worry*, *GENERATION WEEK*, Aug. 22, 2001, <http://www.lexis.com> (search "by Source"; then click "Find a Source"; type in "Generation Week"; click "Find"; select the "Generation Week" hyperlink; then type "state limits on merchant plants").

139. *Conn. Governor Signs Moratorium on Grid Projects, Keeping Cross Sound in Limbo*, *POWER MARKETS WEEK*, June 30, 2003, at 31.

140. Radford, *supra* note 108, at 1.

141. The technical advantage to operating two transmission lines between Connecticut and Long Island, as opposed to one, is that this would allow electric power to travel in a semi-circular loop in and out of Long Island, depending on load.

142. Bruce Lambert, *New York and Connecticut Agree To End Cable Dispute*, *N.Y. TIMES*, June 25, 2004, at B6.

To be sure, some rent transfers are permissible, if not desirable, in state and local political processes. For example, rent seeking in the form of a neutral corporate tax exemption for utilities, or rent-seeking in the setting of utility rates to favor industrial growth, is likely permissible, and subject only to the safeguards of the local political process. However, rent seeking in the form of exclusionary regulation that limits access to the interstate market is more suspect as an approach to regulating economic matters, especially where market exchange is the background norm as a matter of national policy. Florida's Supreme Court rejected a dormant commerce clause challenge to the use of the state's restrictive power plant siting statute to restrict the building of new plants by out-of-state suppliers,¹⁴³ but the inadequacy of a record establishing discrimination against out-of-state merchant suppliers may have impeded the development of this legal argument. At a minimum, dormant commerce clause jurisprudence would require states and localities to explain how regulatory actions and legislation restricting power supply in the wholesale market or transmission expansion might serve legitimate purposes, such as environmental or consumer protection.

Another issue presenting a challenge to state regulation of energy is the use of state action immunity as a defense to antitrust enforcement. Paralleling the public choice account of the dormant commerce clause, Inman and Rubinfeld argue that state action immunity should only be invoked where regulation imposes substantial spillover costs on out-of-state interests.¹⁴⁴ John Shepard Wiley proposes that courts directly address the efficiency, and in particular the public choice, implications of state and local legislation in deciding whether to invoke state action immunity; if anticompetitive legislation is inefficient and the result of producer-interest lobbying, state action immunity should not protect it from invalidation under the Sherman Act.¹⁴⁵ Also drawing on the insights of public choice, Matthew Spitzer argues that federal courts should invalidate state or local legislation if it is inefficient or if it transfers wealth from consumers to producers.¹⁴⁶ While public choice analysis does not

143. *Tampa Elec. Co. v. Garcia*, 767 So. 2d 428, 436 (Fla. 2000).

144. Robert P. Inman & Daniel L. Rubinfeld, *Making Sense of the Antitrust State-Action Doctrine: Balancing Political Participation and Economic Efficiency in Regulatory Federalism*, 75 TEX. L. REV. 1203, 1276 (1997).

145. John Shepard Wiley, Jr., *A Capture Theory of Antitrust Federalism*, 99 HARV. L. REV. 713, 741-76 (1986).

146. Matthew L. Spitzer, *Antitrust Federalism and Rational Choice Political Economy: A Critique of Capture Theory*, 61 S. CAL. L. REV. 1293, 1318 (1988).

render all state and local regulation illegitimate in such contexts, it does illustrate an increased skepticism towards some state and local regulation, a skepticism that may be warranted, particularly against the backdrop of interstate energy supply markets. While, as I have argued, state and local regulation remains highly relevant to climate change, public choice also suggests an important role for courts in assessing when state and local regulation goes too far.

V. CONCLUSION

Economic themes have arisen throughout the history of U.S. energy regulation and continue to be relevant today, particularly with widespread discussion of deregulation and increased attention to climate change. Public choice and attention to economic incentives provides an account for the stability of the regulatory contract that predominated throughout the twentieth century and its accompanying approach to public law, which generally reflected strong judicial deference to state and local regulators. It also helps in explaining and understanding Congress's limited approach to national energy legislation, which reflects a combination of federalism approaches and logrolling responses that link energy policy to transportation, agriculture, and other issues. As I have argued, public choice advises interpreting ambiguity in such legislation in ways that favor nonindustrial consumer groups and new suppliers, since these interest groups are least likely to be involved in lobbying Congress.

Competitive restructuring of energy industries holds new promise for markets, and one view of new competition policies is as a public choice triumph for markets over the failures of regulation. This view is naïve, however, and public choice concerns continue to resonate even in deregulated energy industries given the mixed market/regulation approach that federal and state regulators have consistently embraced. As long as the policy choice to develop new energy markets is within the hands of governmental decision makers, private efforts to influence government can predominate over economic efficiency and public choice themes will remain relevant to the regulation of energy, including issues of climate change.

Indeed, as Congress begins to address climate change explicitly, political economy themes will become more important than ever. Congress cannot successfully address climate change through the adoption of regulatory mandates or piecemeal approaches that fail to confront basic economic incentives in the electric power industry. Doing so will almost certainly undermine regulatory goals. Many

important issues will be addressed by Congress, but an understanding of the economic structure of the industry highlights five issues that must be addressed in order to successfully address climate change:

1. If Congress does not expand FERC's limited authority over transmission planning and siting, parochial state concerns will continue to serve as a barrier to the development of new transmission infrastructure for renewable sources of electric power.
2. If the interaction between new transmission expansion for renewable sources and deregulated wholesale markets is not addressed in transmission cost allocation and pricing policies, renewable sources of electric power may not have access to transmission even where facilities are built.
3. If the political process surrounding cap and trade implementation is not designed to encourage regulatory independence, such programs could readily be designed and manipulated by powerful carbon sources, including power plants, agriculture interests, and industry.
4. The preservation of a continued role for regional, state, and local jurisdiction on matters related to climate change, such as renewable portfolio standards and building codes, will be important to promoting innovation and experimentation.
5. Some mechanism for federal preemption of state regulatory policies that serve primarily parochial goals will be important to ensuring the success of national climate change policies.

Given the strength of economic incentives in the electric power industry, any energy package that fails to address each of these five issues will continue to present barriers to broader climate change goals. Unless Congress wishes its climate change programs to amount to little more than symbolic legislation, it will need to confront the economic structure of the energy industry and the continued challenges it presents to regulatory efforts to limit carbon emissions.