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Member, District of Columbia and Connecticut Bars.

A NEEDED REFORM OF THE ORGANIZATION AND REGULATION OF THE INTERSTATE ELECTRIC POWER INDUSTRY

*JOHN T. MILLER, JR.**

IN 1965 a Federal Power Commission Hearing Examiner found only four practical ways by which Consolidated Edison Company of New York could meet, promptly and dependably, the expanding power demands of its customers. "Applicant must construct transmission lines to bring power into New York City from sources outside the area, build additional conventional thermal plants within the metropolitan area, build nuclear power plants within the area, or construct pumped-storage hydroelectric projects where sites for that purpose are available."[1] Four years later, faced with a continuing power shortage and frustrated in its efforts to complete needed generating stations on schedule, Con Ed submitted copies of the company's ten-year plan to the federal, state and local regulatory authorities which had jurisdiction over its electrical operations and asked them to consider and agree to the proposal.[2] This was an act of desperation. Con Ed, in effect, was asking independent authorities to voluntarily harmonize a regulatory pattern which had become an impediment to the efficient, economic and timely supply of the power needs of the country.

The electric power industry is the largest in the United States. The demand upon it for electric power is expected to double over the next decade.[3] Generating stations, transmission lines and distribution facilities must be expanded accordingly to make additional energy supplies available when and where needed. The nation's investor-owned utilities, which had a net investment of seventy-six billion dollars in electric utility plants at the end of 1968,[4] are expected to spend some forty-eight billion dollars over the next five years to increase their present generating capacity of two hundred forty million kilowatts (kw) by more than fifty percent.[5] Despite past accomplishments, it is doubtful that the

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1. Consolidated Edison Co., 33 F.P.C. 428, 470, rev'd on other grounds sub nom. Scenic Hudson Preservation Conf. v. FPC, 354 F.2d 608 (2d Cir. 1965), cert. denied, 384 U.S. 941 (1966).

2. N.Y. Times, Aug. 17, 1969, § 4, at 9, col. 2.

3. FPC, National Power Survey 36 (1964) [hereinafter cited as Survey]; Statement by Donald Cook, President of American Electric Power Co., in N.Y. Times, Jan. 11, 1970, § 12, at 36, col. 3.

4. FPC, Statistics of Privately Owned Utilities in the United States 1968, at viii (1969) [hereinafter cited as 1968 Statistics].

5. Statement by A. Aymond, President of Edison Electric Institute, in Wall St. J., Jan. 15, 1970, at 5, col. 3.

industry will be able to meet its future requirements on time, in the most economic and efficient manner, and with appropriate regard for the conflicting interests of society in obtaining power supplies at the lowest reasonable cost, preventing water and air pollution, and reducing threats to human safety.[6]

Responsibility for retarding the industry's growth may be traced to several factors. Regulatory delays and litigation encouraged by the conservationists and others are postponing the installation of planned new generating capacity and transmission lines. Atomic technology related to thermal generating plants is evolving more slowly than anticipated. Equipment deliveries are running behind schedule. Construction and financing costs are rising sharply.[7] Efforts are being made by the public utilities, encouraged by the Federal Power Commission, to interconnect power systems in the interest of more economic and reliable service.[8] But these activities are voluntary and not regulated in the public interest by any governmental body with jurisdiction to do an effective job.[9]

The purpose of this article is two-fold: first, to examine certain organizational and regulatory features of the interstate electric power industry which appear to serve inadequately the interest of the industry, the consumer, and the general public; and second, to suggest for consider-

6. See Main, A Peak Load of Trouble for the Utilities, Fortune, Nov. 1969, at 116.

7. "In the past six years the cost of building generating capacity has increased 46 percent for conventional power and 43 percent for nuclear power. Interest rates have gone from the comfortable post-World War II rate of around 3 percent to 8 percent and more today." Id. at 116-18.

8. In 1962 there were 480 investor-owned, 2,124 public (non-federal), 969 cooperatives and 44 federal power systems. 2,317 of these systems are engaged in the distribution of power only. Of the remaining 1,300 systems, the 100 largest accounted for 89 percent of the total electric utility generation. Over 900 systems were supplied by generating plants designed to meet system loads. Such plants had but a small fraction of the capacity available from a simple modern generating unit. The customers of those plants were not enjoying the benefits of low-cost, large scale generation. Survey at 17.

In his concurring decision in Western Mass. Elec. Co., 39 F.P.C. 723, 758, modified, 40 F.P.C. 296 (1968) FPC Chairman White stated: "The record in this case details what has long been a matter of common knowledge—the gross inadequacy of regional planning among the numerous electric systems operating in New England."

9. The Federal Power Commission lacks jurisdiction to publish blueprints for future development of electric generation and transmission facilities which the industry must follow. However, the Commission has sought to enlist the voluntary support of the industry in preparing guidelines. The Commission's National Power Survey published in 1964 was a major step in this effort. In 1966 the Commission organized regional advisory committees to help bring the Survey up to date. The purpose of the Committees was stated, in pertinent part, in these terms: "The Committees will be consultative only, . . . and will function in keeping with the position of the Commission enunciated on many occasions that the National Power Survey is not intended as a blueprint or as a means of compelling the construction of particular facilities." Order Establishing National Power Survey Regional Advisory Committees, 35 F.P.C. 58, 59 (1966).

ation a reorganization of the industry and its regulation which might enable it to fulfill its role over the next decade more efficiently, effectively and economically.

I. BACKGROUND

The electric industry originated nearly ninety years ago. It started as a local business with competing firms serving the same municipality. Thomas Alva Edison's first generating plant on Pearl Street, for example, served business offices in adjacent blocks in the City of New York.[10] Regulation was effected at the municipal level when permits had to be obtained to use public streets and alleys for power lines. With the development of the transformer the construction of larger efficient generating plants at such distant hydroelectric sites as Niagara Falls became realistic. Since the municipalities lacked jurisdiction to cope with this situation, regulatory commissions were created in most states early in the present century with jurisdiction more nearly coextensive with the operations of the electric utilities. Meanwhile, adoption of alternating current permitted the construction of still larger generating plants and encouraged further consolidation within the industry. Thus, the public utility holding company appeared on the scene.[11] By the 1920's it had acquired such a dominant role that the United States Senate ordered the Federal Trade Commission to undertake a detailed study of the organization and operation of the electric and gas industries, the scope and effectiveness of their regulation, and the need for remedial legislation.[12] Regulation at the state level was not adequate.[13] Congress enacted four statutes to fill apparent regulatory gaps: the Securities Act of 1933,[14] the Securities Exchange Act of 1934,[15] the Public Utility Holding Company Act of 1935,[16] and the Federal Power Act of 1935.[17] The latter two statutes are of particular interest here.

10. A. Tate, Edison's Open Door 47, 56-57 (1938). See also M. Josephson, Edison 251-67 (1959).

11. See I. Barnes, The Economics of Public Utility Regulation 62-64 (1947).

12. The Federal Trade Commission undertook the study of the gas and electric utility industries, pursuant to S. Res. 83, 70th Cong., 1st Sess., 69 Cong. Rec. 3054 (1928). Its final report was submitted on Dec. 31, 1935.

13. The Supreme Court held in Public Util. Comm'n v. Attleboro Steam & Elec. Co., 273 U.S. 83 (1927), that a state could not regulate wholesales of electric power in interstate commerce.

14. Act of May 27, 1933, ch. 38, tit. I, 48 Stat. 74 (codified at 15 U.S.C. §§ 77a-77aa (1964), as amended 15 U.S.C. (Supp. IV, 1969)).

15. Act of June 6, 1934, ch. 404, tit. I, 48 Stat. 881 (codified at 15 U.S.C. § 78 (1964), as amended 15 U.S.C. (Supp. IV, 1969)).

16. Act of Aug. 26, 1935, ch. 687, tit. I, 49 Stat. 803 (codified at 15 U.S.C. § 79 (1964)).

17. Act of Aug. 26, 1935, ch. 687, tit. II, 49 Stat. 838 (codified at 16 U.S.C. §§ 791a-828 (1964), as amended 16 U.S.C. (Supp. IV, 1969)).

Under the Public Utility Holding Company Act, the Securities and Exchange Commission (SEC) obtained jurisdiction over the holding companies and their public utility subsidiaries. While it was not enjoined to dissolve all of them, the Commission was directed to limit holding company system operations, with limited exceptions, to a single integrated public utility system, and to eliminate undue or unnecessary complication in the organization of holding companies and their subsidiaries. By the mid-1950's the work was largely done.[18] Today, the holding company systems regulated by the SEC own some twenty-one percent of the generating capacity in the country.[19] These regulated firms may not issue securities, combine with other companies, or acquire utility assets without Commission consent, save in limited circumstances where the arrangement is regulated by state authorities.[20]

The Federal Power Commission (FPC) was given jurisdiction in 1920 to license hydroelectric generating stations on waterways, subject to federal control, and on public lands.[21] In 1935, the jurisdiction of the Commission over the power industry was extended by the Federal Power Act to the sale of power by a public utility in interstate commerce at wholesale;[22] mergers, acquisitions, interlocking directorates, and the issuance of securities by public utilities not regulated by the SEC or a state;[23] most aspects of international commerce in electric energy;[24] and accounting.[25] The Commission is enjoined to encourage the

18. See 1956 SEC, Ann. Rep. 126-29; R. Ritchie, Integration of Public Utility Holding Companies vii (1954). By then the problem was not so much how to integrate further as how to dispose of non-integrated property.

19. Survey at 19.

20. See 15 U.S.C. §§ 79f, 79g, 79i (1964).

21. Act of June 10, 1920, ch. 285, § 4(d), 41 Stat. 1063 (codified at 16 U.S.C. § 797(e) (1964), as amended (Supp. IV, 1969)).

22. Act of Aug. 26, 1935, ch. 687, tit. II, pt. II, §§ 201(a)-(b), 49 Stat. 847 (codified at 16 U.S.C. §§ 824(a)-(b) (1964)). However, the Commission cannot regulate a wholesale made in interstate commerce by an agency, subdivision or instrumentality of the United States or of a state under the Federal Power Act. Id. at § 201(f), 49 Stat. 848 (codified at 16 U.S.C. § 824(f) (1964)).

23. Act of Aug. 26, 1935, ch. 687, tit. II, pt. II, §§ 203(a), 204(a), 49 Stat. 849-50, pt. III, § 305(b), 49 Stat. 856 (codified at 16 U.S.C. §§ 824b(a), 824c(a), 825d(b) (1964)). See Welch, Functions of the Federal Power Commission in Relation to the Securities and Exchange Commission, 14 Geo. Wash. L. Rev. 81 (1945). About 30 utilities are subject to securities regulation by the FPC.

24. Act of Aug. 26, 1935, ch. 687, tit. II, pt. II, § 202(e), 49 Stat. 849 (codified at 16 U.S.C. § 824a(e) (1964)).

25. Id., pt. III, § 301(a), 49 Stat. 854 (codified at 16 U.S.C. § 825 (1964)). The Commission's uniform system of accounts must be utilized by licencees of hydroelectric projects (other than states and municipalities) and public utilities operating facilities subject to the Commission's jurisdiction. Id.

interconnection of power systems, but it can compel such actions only in times of emergency or when application is made either for an order to interconnect with other persons engaged in transmission or sale of electric energy, or to sell or exchange energy with such persons, provided that such compulsory interconnection does not impair existing service.[26] Nor can the Commission compel the enlargement of generating facilities for such purposes. Moreover, the Commission has no jurisdiction over thermal power plants which now provide over ninety percent of the electricity generated by investor-owned public utilities in the country,[27] nor over the construction of transmission lines carrying power in interstate commerce which are not part of a licensed hydroelectric project.[28] Further, the Commission has determined that it cannot rationalize a coordinated power system by requiring one utility to "wheel" power for the benefit of another utility.[29] As a consequence of these limitations, compulsory jurisdiction over the interstate electric power industry is rather slight. Indeed, less than ten percent of the revenues received from the sale of power in interstate commerce is subject to the

26. Id., pt. II, §§ 202(b)-(d), 49 Stat. 848-49 (codified at 16 U.S.C. § 824a(b)-(d) (1964)). This emergency power was first exercised in 1941 to alleviate conditions in the Southeast. R. Baum, The Federal Power Commission and State Utility Regulation 255 (1942). For an instance of the exercise of the power to compel interconnections upon applications, see Shrewsbury Municipal Light Dep't v. New England Power Co., 32 F.P.C. 373 (1964), aff'd sub nom. New England Power Co. v. FPC, 349 F.2d 258 (1st Cir. 1965).

27. In 1968, investor-owned utilities supplied 76.7 percent of the power generated in this country. 1968 Statistics at vii. Of this, 91 percent was produced in thermal electric generating plants fueled with coal, oil or gas. Id. at ix.

28. A "project" includes "the primary line or lines transmitting power [from the hydro power house] to the point of junction with the distribution system or with the interconnected primary transmission system . . . ." 16 U.S.C. § 796(11) (1964).

Congress deliberately refrained from enlarging the Commission's jurisdiction over electric power facilities. The reasons for omitting the power from the bill which became law were explained by the Senate Committee in these terms: "The requirement in section 204 of S. 1725 that a public utility secure a certificate of convenience and necessity before constructing, acquiring, or abandoning facilities has been eliminated entirely. While it may ultimately be found desirable to adopt a provision of this kind, the committee is of the opinion that for the present there is no imminent danger of excessive extensions that would prove disadvantageous to consumers." S. Rep. No. 621, 74th Cong., 1st Sess. 20 (1935).

In recognition of this limitation, the FPC has declined to extend its power over the issuance of securities to determine whether the public convenience and necessity required the long distance interstate transmission lines to be financed by the securities being issued. Pacific Power & Light Co., 27 F.P.C. 623 (1962).

29. City of Paris v. Kentucky Util. Co., 41 F.P.C. 45 (1969). "[W]heeling means the obligation of one public utility to make its transmission facilities available to 'facilitate' a power supply contract between two other unconnected electric companies . . . ." Id. at 49 (footnotes omited).

Commission's jurisdiction, the remainder involving non-jurisdictional retail sales.[30]

In 1935 the generation and transmission of electric power was essentially an intrastate business with little interconnection between power systems.[31] Now all but a few systems in the United States have interstate connections, although these interconnections do not necessarily ensure reliable service. For example, a power failure on November 9, 1965, which began in Ontario, Canada, cascaded through interconnections to neighboring power systems, inconveniencing an estimated thirty million people in an eighty thousand square-mile area of Canada and northeastern United States, interrupting commercial power to more than eight hundred hospitals and causing an estimated one hundred million dollars in economic losses.[32]

In 1935 the technology of power generation and transmission was still in a state of relative infancy. By 1940 the largest units being installed in a thermal station had a capacity of one hundred twenty-five megawatts, except for one two hundred-megawatt unit. Now units with a capacity of one thousand megawatts and larger have become feasible. With some exceptions, however, individual electric distribution systems lack the market size and growth required to permit economic utilization of these very large, low cost facilities. Adjacent utilities must plan together the installation of such units. The "regional approach to power planning is the key to an efficient, reliable electric system in the United States."[33]

After the Federal Power Commission publicized in 1964 the substantial economies in construction and operating costs possible through interconnections,[34] and the Commission's 1967 report on power failures, the industry turned with more alacrity to coordination efforts. These range from informal discussions to elaborate agreements and, occasionally, mergers. Given the monopolistic character of the industry, the vast amount of capital it must invest to meet demands in the next decades, the lack of an adequate governmental regulatory authority to represent

30. In 1968, wholesales by investor-owned utilities involved only 15.8 percent of their sales by volume and 6.8 percent of their revenues. 1968 Statistics at xiv.

31. In 1933, 17.8 percent of the power generated in the United States was transmitted in interstate commerce. H.R. Rep. No. 1318, 74th Cong., 1st Sess. 7 (1935).

32. See FPC, Prevention of Power Failures, pt. 1, at 7-8 (1967).

33. Luce & Kaseberg, The Bonneville Power Marketing Area Legislation: Is Regionalism in Electric Power Planning Old Fashioned?, 45 Ore. L. Rev. 251, 269 (1966). Mr. Luce, former Administrator of the Bonneville Power Administration, is currently Chairman of the Board of Con Ed.

34. In its 1964 National Power Survey, the Commission estimated that capital investments might be reduced industry-wide by $11.7 billion through the period ending 1980 by appropriate system interconnections and installations of the larger thermal generating units. Survey at 286.

the public interest, and the voluntary character of the industry's activities, the present organizational structure of the industry and the regulatory pattern within which it operates are not adequate for the needs of society.

Let us begin with an examination of certain features of the industry's organization.

II. Organization

The electric power industry is a mosaic of over three thousand five hundred publicly and privately-owned systems. The number of participants varies somewhat from year to year due to mergers, asquisitions and the organization of jointly-owned generating companies. Investor-owned systems provide over seventy-five percent of the energy generated throughout the United States and supply almost eighty percent of the retail customers. Federal agencies, especially the Tennessee Valley Authority (TVA), Bonneville Power Administration (Bonneville), and Bureau of Reclamation, are significant wholesale suppliers in some areas, the retail function being performed by their customers. Cooperatives, municipal and state utilities provide some eleven percent of the generating capacity and serve about twenty-one percent of the retail customers.[35]

It seems apparent that the main burden of providing future power supplies must be borne by the investor-owned sector of the industry. Except for the TVA, which has installed substantial thermal generating capacity, the federal government has normally limited its direct role to the construction of hydroelectric plants, sites for which are limited in number. How is the private sector of the industry organized to meet its service obligations?

There are three ways in which the industry has been seeking through coordination the economies of scale inherent in the best managerial techniques and the latest technology: mergers, including use of the holding company device; joint ownership of regional generating and transmission facilities; planning through consultation and agreement. The last procedure, voluntary cooperation, is the backbone of current activities. We shall examine it first. Joint ownership of the electric power facilities is not yet a widespread practice in the investor-owned sector of the industry. As the practice involves some of the difficulties inherent in voluntary coordination—of which it is a part—it will not be considered separately.

A. *Voluntary Coordination*

The following examples of voluntary cooperation are to be found in the regional power surveys prepared by industry representatives in 1968

35. Id. at 17.

as part of the Federal Power Commission's efforts to update its 1964 National Power Survey.[36]

The Western Energy Supply and Transmission Associates (WEST) consists of twenty-three utilities in nine southwestern states. Membership includes twelve investor-owned, five municipally-owned, three Rural Electrification Administration generation and transmission systems, two irrigation districts, and one state authority. WEST owns no facilities. Its purpose is to provide integrated regional planning of generating plants and transmission lines. As a part of its efforts to enable members to avail themselves of the economies of scale, jointly-owned generating plants have been planned. Two seven hundred and fifty-megawatt coal-fired steam units have been constructed at Four Corners, New Mexico, two seven hundred and fifty-megawatt coal-fired units are to be installed at the Mohave site on the Colorado River, and hundreds of miles of three hundred and forty-five kilovolt (kv) and five hundred kv transmission lines are to connect these new power plants with the distribution systems of their owners.[37]

The large role played by the Bonneville Power Administration in providing bulk power from hydroelectric plants has led to a high degree of coordination of power supply and transmission activities in the northwest. Rising power demands and the limited availability of additional hydroelectric sources have forced the utilities to plan large-scale thermal plants to meet future requirements. "The Pacific Northwest Coordination Agreement (PNAC) group was organized in 1961 to coordinate the operation of power resources and transmission facilities."[38] A series of short-term agreements were superseded in 1964 by a thirty-five year agreement to which Bonneville Power Administration, the Corps of Engineers, and some thirty publicly and privately-owned utilities became signatories. Additional persons may join when all parties agree.[39] A Joint Power Planning Council was organized in 1969 consisting of four investor-owned utilities, one hundred and five publicly-owned systems and the Bonneville Power Administration to project hydroelectric and thermal requirements needed to satisfy load growth over the next

36. For purposes of its Survey, the FPC divided the country into six regions: Northeast, East Central, Southeast, West Central, South Central, and West. Order Establishing National Power Survey Regional Advisory Committees, 35 F.P.C. 58 (1966). The Advisory Committee for each region submitted a report for the period 1970-1990 to the FPC which was made available to the public by the Commission in 1969, identified as a Committee product. The Committee reports are being considered by the Commission in preparing its next National Power Survey expected to be published in 1970.

37. The West Regional Advisory Comm., The Future of Power in the West Region 1970-1980-1990, at 5-12, 5-13 (1969) [hereinafter cited as West Report].

38. Id. at 5-6.

39. Id. at 5-6; Wall St. J., Jan. 22, 1970, at 3, col. 2.

twenty years and to adopt a specific generation expansion plan for the next decade.[40] A two hundred million dollar coal-fired thermal plant with a generating capacity of one thousand four hundred megawatts now being constructed near Centralia, Washington, is the first unit to be installed as a result of these efforts.[41] It is to be jointly owned by four investor-owned and five publicly-owned utilities.[42] Generating plants subsequently built under the plan are expected to be nuclear powered.[43]

The Mid-America Interpool Network (MAIN), organized in 1964, is an association of power companies and groups of companies operating some thirty thousand megawatts of generating capacity serving the states of Illinois, Missouri, Iowa, Minnesota and Wisconsin. Its purpose is "to promote maximum coordination of planning, construction and utilization of generation and transmission facilities on a regional basis by MAIN members individually and as members of the power pools to which they belong, in order to improve the reliability of electric bulk power supply in the areas served by such members and pools."[44] An Engineering Committee is the planning arm and undertakes such activities as will contribute to electric service reliability through more complete coordination of the long-range plans of the members of the association. A Task Force has been developing a coordinated future program for the MAIN systems. Computer studies are being made to check the coordination of the various plans submitted by the individual systems. MAIN expects to produce eventually a coordinated plan of development for its multi-state area.[45] As a result of planning coordination, seasonal diversity exchange contracts have been executed between the American Electric Power holding company system to the east and the Illinois-Missouri Pool amounting to two hundred megawatts and also between American Electric Power and Commonwealth Edison Company for one hundred megawatts.[46]

The four investor-owned utilities which make up the CARVA Pool operate in the states of Virginia, a small part of West Virginia, North Carolina and South Carolina. The companies are committed, by an agreement which became fully effective in 1967, to undertake joint planning and operation of transmission and generation.[47] This is accomplished through various committees and special working groups on which each

40. West Report at 5-7; Wall St. J., Jan. 22, 1970, at 3, col. 2.

41. West Report at 5-23; Wall St. J., Jan. 22, 1970, at 3, col. 2.

42. West Report at 5-23.

43. Wall St. J., Jan. 22, 1970, at 3, col. 2.

44. The West Central Regional Advisory Comm., West Central Region Power Survey 1970-1990, at IV-C-23 to I-VC-26 (undated).

45. Id. at IV-C-23 to IV-C-26.

46. Id. at IV-C-27.

47. The Southeast Regional Advisory Comm., Electric Power in the Southeast 1970-1980-1990, at 4-1 (1969).

company has representation. CARVA planning has permitted the participating utilities to install larger size units with attendant economies in investment and operation and to undertake an extensive five hundred kv transmission system through the Pool territory.[48]

The basic purposes of these arrangements are to effect greater reliability in service and to economize in the cost of constructing and operating generating and transmission facilities. The obligations are voluntarily undertaken. To a large extent, they are free of effective overall control by any regulatory body. Individual state commissions might study the contracts from the point of view of their impact on the service of a participating utility which has a service area within the state. Certificates of public convenience and necessity might be required for locally constructed facilities. But state commissions are not in a position to determine the merit of a project in terms of its impact on consumers and services in other states. Wholesale arrangements resulting from pool activities are under the jurisdiction of the FPC in the sense that the agreements must be filed with the Commission and are subject to its regulation insofar as rates and service discriminations are concerned. But the Commission's role does not arise until after the pool facilities are constructed.

The difficulties involved in regional power planning under present circumstances have been ably summarized in these terms:

> The objective of regional planning, if each region is to have the most reliable and efficient electric system that engineers can design, must be that the many independent utility systems so coordinate their activities that they build and operate their electric properties as though they were, in fact, only one utility system. This involves complicated problems of engineering, economics, finance, law, and politics, the solution of which requires the most intimate knowledge of each particular region: its geography, resources, climate, population, personalities, etc. It requires that each utility, whether publicly or privately owned, forego the exercise of a part of its sovereignty. It requires that top management of electric utilities become personally involved in decisions heretofore often delegated to operating personnel. It may require the electric industry to seek advice and assistance from experts in other disciplines, for example, systems analysis experts from the space and aeronautical industry.[49]

It has been suggested that regional planning can be effected without any change in the industry's organizational pattern and without additional legislation, "though certain changes in the antitrust and holding company laws might be desirable."[50] However, the reference to the antitrust laws is a significant caveat. Investor-owned utilities participating in power pools may be in a position to compete with other members of

48. Id.

49. Luce & Kaseberg, supra note 33, at 270.

50. Id. at 271. See Miller, Competition and the Public Interest in the Interstate Gas and Electric Industries, 55 Iowa L. Rev. 570 (1970).

the pool in the supply of wholesale power in interstate commerce. It has not been an obvious purpose of pooling arrangements to unleash forces of competition which theretofore have been dormant.

There is relatively little competition in the electric power industry, although a rather strident struggle for loads is to be found between systems of different institutional origins (such as between municipal utilities or REA's and investor-owned utilities).[51] It has been suggested that within the investor-owned segment competition was minimized by capital shortages during the Depression years, material shortages during World War II, capital and equipment demands of the immediate postwar period, and the subsequent stabilization of service area boundaries even in areas where not prescribed by statute. "[M]utual respect by investor-owned companies of their respective service area boundaries—even where ill-defined or where one company is large and the other small —is the rule, rather than the exception."[52] The Federal Power Commission has concluded that the industry has become essentially a monopoly largely as a consequence of its capital needs, noting at the same time that there is competition between electricity and other forms of energy.[53] Are investor-owned utilities entirely free to enter into pooling arrangements?

During the preparation of the 1964 National Power Survey, the Department of Justice, upon inquiry,[54] expressed the view that pool agreements restricting the resale of power to particular areas and particular customers and for particular end use purposes would tend to raise serious antitrust problems, citing *Dr. Miles Medical Co. v. John D. Parks & Sons, Co.*,[55] *Addyston Pipe & Steel Co. v. United States*,[56] and *Timken Roller Bearing Co. v. United States*.[57] The filing of a pooling agreement containing such restrictive terms with a federal or state regulatory body could give no comfort as it would provide no exemption. There is no express statutory authority immunizing utilities from the federal antitrust laws. The Supreme Court had ruled in *California v. FPC*[58] that even though the FPC, in the exercise of its jurisdiction over the issue and

51. See Alabama Power Co. v. Alabama Elec. Cooperative, Inc., 394 F.2d 672 (5th Cir.), cert. denied, 393 U.S. 1000 (1968); Alabama Elec. Cooperative, Inc. v. Alabama Power Co., 283 Ala. 157, 214 So. 2d 851 (1968); North Carolina ex rel. Utilities Comm'n v. Union Elec. Membership Corp., 3 N.C. App. 309, 164 S.E.2d 889 (1968).

52. FPC, Report of the Legal Advisory Comm., in Survey, pt. 2, at 366 (1964).

53. Survey at 11-12.

54. Letter from Lee Loeringer to Herbert Cohn, June 7, 1963, in Survey, pt. 2, at 367-69.

55. 220 U.S. 373 (1911).

56. 175 U.S. 211 (1899).

57. 341 U.S. 593 (1951).

58. 369 U.S. 482 (1962).

cancellation of certificates of public convenience and necessity, might sanction a merger of two interstate gas pipeline companies, it could not thereby immunize the transaction from the anti-merger provisions of the Clayton Act. Congress has afforded no "pervasive regulatory scheme,"[59] including the antitrust laws administered by the FPC, for the electric industry.

> [If there were a] comprehensive federal statute authorizing regulation of entry, rates, end use of electricity, terms and conditions of service, territory and customers to be served, et cetera,—so as to permit the creation of fully regulated monopolies—then an antitrust challenge might be held incompatible with such a regulatory scheme when an agreement such as the one in question has been approved by the regulatory agency pursuant to the statute. It should be noted, however, that notwithstanding the comprehensive regulation to which certain industries are subjected by federal agencies, Congress has deemed it necessary to provide specifically for exemption of approved pooling agreements or agreements allocating territory, customers, and the like. . . .[60]

Similar antitrust problems might well exist under state laws.

Another antitrust problem inherent in pooling arrangements involves the question of access by "outsiders" to the pool's power plants and transmission facilities. This problem has been brought into sharp focus in recent years by disputes between investor-owned electric utilities in New England and certain municipal utilities in Massachusetts over access to power to be generated by jointly-owned hydro[61] and nuclear-powered thermal stations.

Vermont Yankee Nuclear Power Corporation, sponsored by ten investor-owned utilities, was organized to build a one hundred twenty million dollar plant near Vernon, Vermont. Maine Yankee Atomic Power Company, sponsored by eleven investor-owned utilities, was established to build a one hundred forty million dollar plant near Wiscasset, Maine. The sponsors were to take all of the output of the power plants in agreed shares and to provide the necessary capital in similar proportions. The state regulatory bodies gave their approval. The SEC was asked to approve the acquisition of securities under § 10 of the Public Utility Holding Company Act, and the Atomic Energy Commission (AEC) was requested to approve the proposed nuclear power units. The wholesale contracts between the nuclear powered generating companies and the sponsoring utilities were to be filed with the FPC before service began.

The municipal utilities, apparently unable to obtain through negotiation a share of the bulk power supply to be produced by the nuclear-powered plants, sought to persuade the SEC and the AEC to rule that the

59. United States v. Radio Corp. of America, 358 U.S. 334, 351 (1959).

60. The statutes referred to in the quotation relate to railroads. See FPC, Report of the Legal Advisory Comm., in Survey, pt. 2, at 369. See City Gas Co. v. Peoples Gas System, Inc., 182 So. 2d 429 (Fla. 1965).

61. See Municipal Elec. Ass'n v. FPC, 414 F.2d 1206, 1209 (D.C. Cir. 1969).

projects could not be authorized because they were against the public interest due to violations of the antitrust laws arising out of the exclusion of competing municipal utilities. The agencies responded adversely. On review, the United States Court of Appeals reversed the SEC, holding that "violations of the antitrust laws bear upon 'the public interest or the interest of investors and consumers,' terms used in Section 10(b)(1) of the Act now before us."[62] While the service areas of the sponsors and the municipalities did not overlap, there was competition between the sponsors or their affiliates in the supply of power to new industries, and to attract new industry to locate in their service areas. The case was remanded for consideration by the SEC of the anticompetitive allegations of the municipalities.[63]

In a separate decision, the court held that the AEC could ignore the antitrust aspects of the projects because the nuclear reactor was still in the developmental state, the clear inference remaining that antitrust considerations would become relevant once the atomic technology advanced to the state where the reactor has "practical value" for industrial purposes.[64]

The courts have declined to enforce an agreement between electric utilities which divides a market between them.

> One is a public utility, the other, an electrical cooperative corporation—quasipublic in character—both engaged in supplying a commodity to the public in the territory they are authorized to serve. In determining the relative freedom to contract and the validity of contracts which tend to restrict trade, the courts have definitely distinguished the limited powers of corporations impressed with a public trust and duty, from the greater freedom allowed to private enterprise. By the great weight of authority in this country, the rule has been promulgated and consistently applied that contracts between quasi-public corporations, having for their object the division of territory between such companies, are against public policy, and being so, are absolutely void, untempered by any application of the "rule of reason."[65]

The Department of Justice is currently prosecuting antitrust suits against private electric utilities on the basis of alleged divisions of market and attempted restraint of the resale of power.[66] It is doubtful that the approval of a division of market arrangement involving wholesales in interstate commerce by a state regulatory commission having jurisdiction

62. Municipal Elec. Ass'n v. SEC, 413 F.2d 1052, 1057 (D.C. Cir. 1969).

63. Id. at 1061.

64. Cities v. AEC, No. 21,706 (D.C. Cir., Dec. 5, 1969).

65. Montana-Dakota Util. Co. v. Williams Elec. Cooperative, 263 F.2d 431, 434 (8th Cir. 1959). For a discussion of the law in this area, see McCausland, Territorial Agreements Among Utilities and the Antitrust Laws, in ABA, Annual Report Section of Pub. Util. L. 52 (1966).

66. See, e.g., Elbow Lake v. Otter Trail Power Co., 40 F.P.C. 1262 (1968).

over one or all of the participating public utilities will exempt such arrangements from the federal antitrust laws.[67]

Whether an interconnection ordered by the Federal Power Commission would enjoy an exemption from the antitrust laws, as might be implied from *Pennsylvania Water & Power Co. v. FPC*,[68] is largely academic. The Commission recognizes that it lacks meaningful jurisdiction over interconnections; it cannot order an interconnection on its own motion.[69] In 1967, the Commission submitted to Congress an Electric Power Reliability Act which would effect regional coordination of all bulk power supply systems in the United States. Specifically, the proposed legislation was designed:

> [A.] [T]o establish regional planning councils, including all segments of the electric utility industry (public, private, cooperative and Federal), to review, test and coordinate plans for bulk power facilities throughout a region, and to disclose electric utility planning to the view of the federal and state agencies and the public;
>
> [B.] [T]o enable the Commission, with the advice of the regional councils, to establish minimum reliability standards;
>
> [C.] [T]o provide for Commission review of extra-high-voltage transmission lines to insure their consistency with high standards of reliability, usefulness, efficient utilization of land and conservation of historic sites and other limited resources; and
>
> [D.] [T]o authorize the Commission to require interconnections between bulk power suppliers and to review proposals to abandon bulk power services.[70]

Congress has not acted favorably on the proposed legislation.

The fact that the Commission might have licensed a hydroelectric plant involved in a voluntary interstate power pool would not free the licensee from applicability of the antitrust laws. The Federal Power Act specifically provides that all project licenses shall be subject to the condition that "[c]ombinations, agreements, arrangements, or understandings, express or implied, to limit the output of electrical energy, to restrain trade, or to fix, maintain, or increase prices for electrical energy or service are hereby prohibited."[71] No exemption is implied from the

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67. Laws regulating the assignment of territories have been enacted by North Carolina, Florida, and other states to avoid duplication of facilities. See Storey v. Mayo, 217 So. 2d 304 (Fla. 1968), cert. denied, 395 U.S. 909 (1969); State ex rel. Utilities Comm'n v. Lumbee River Elec. Membership Corp., 275 N.C. 250, 166 S.E.2d 663 (1969). Activities permitted by the state can effect violations of the antitrust laws in interstate or foreign commerce. Northern Sec. Co. v. United States, 193 U.S. 197, 347 (1904).

68. 343 U.S. 414 (1952); cf. California v. FPC, 369 U.S. 482 (1962).

69. "S. 1621 and H.R. 6485 [would] amend section 202(b) of the Federal Power Act to give the FPC authority to direct the interconnection of [interstate] electric facilities 'on [the Commission's] own motion' . . . ." FPC, Annual Report, Fiscal Year 1966, at 183.

70. Speech by L. Mendoza, Summary of Recent Developments in FPC Regulation, to NARUC Engineers Conference, May 6, 1968, in FPC, Annual Report, Fiscal Year 1967, at 5.

71. 16 U.S.C. § 803(h) (1964). "The condition was a reaffirmance of the Sherman Act . . . ." Pennsylvania Water & Power Co. v. Consolidated Gas, Elec. Light & Power

fact that the firms involved in the pool are called public utilities. "The franchise to exist as a corporation, and to function as a public utility, in the absence of a specific charter contract on the subject, creates no right to be free of competition, and affords the corporation no legal cause of complaint by reason of the state's subsequently authorizing another to enter and operate in the same field."[72]

Formal pooling arrangements between independent utilities are apparently creatures of necessity. They reflect the sophistication that comes from a knowledge that the antitrust laws exist and that the courts have been applying them to regulated companies. The dearth of antitrust suits, and the occasional participation in the pools by federal bodies engaged in power generating functions (TVA, Bonneville, Bureau of Reclamation, and others)[73] may encourage a belief that pooling arrangements will be upheld as reasonable restraints.[74]

Until the spell is broken by enervating lawsuits, and the industry caught up in the paralyzing embrace of antitrust mandates,[75] the regulatory gap within which the pooling agreements are negotiated and function appears quite attractive. It affords to the utilities more liberty than one would expect in a regulated industry, leaving to their initiation and expertise a large measure of freedom in planning future generation and transmission developments. The present arrangements work, although the power supply reserve may be inadequate in places. They do not, however, necessarily provide the most economic utilization of the nation's resources or the benefits that competition might afford.[76]

B. *Mergers*

It is estimated that the four hundred and eighty investor-owned electric utility systems operating in 1962 were the progeny of some four

Co., 184 F.2d 552, 562, cert. denied, 340 U.S. 906 (1950), modified, 186 F.2d 934 (4th Cir. 1951).

72. Tennessee Elec. Power Co. v. TVA, 306 U.S. 118, 139 (1939) (footnotes omitted).

73. Congress determines how the power generated at federal projects is to be marketed. See Miller, Some Observations on the Lawfulness of Long-Term Contracts for the Purchase of Energy Supplies by Public Utilities in Interstate Commerce, 49 Geo. L.J. 673, 681-82 (1961).

74. See Standard Oil Co. v. United States, 221 U.S. 1 (1911).

75. See Cascade Natural Gas Corp. v. El Paso Natural Gas Co., 386 U.S. 129 (1967).

76. "Our study was undertaken primarily to investigate the feasibility of measuring the effects of regulation, but our inability to find any significant effects of the regulation of electrical utilities calls for some explanation. . . .

"The ineffectiveness of regulation lies in two circumstances. The first circumstance is that the individual utility system is not possessed of any large amount of long run monopoly power. It faces the competition of other energy sources . . . .

"The second circumstance is that the regulatory body is incapable of forcing the utility to operate at a specified combination of output, price, and cost." Stigler & Friedland, What Can Regulators Regulate? The Case of Electricity, 5 J. Law & Econ. 1, 11 (1962).

thousand separate systems organized since 1880.[77] Mergers rather than failures presumably account for most of the distillation. Introduction of the transformer in 1886 permitted the construction of central generating stations, forcing the merger of competing firms serving the same municipality. Where local franchises had to be transferred, the municipality might regulate to some degree the terms of consolidation. Various methods of combination were employed, including the leasing of facilities, and the acquisition of assets and securities. As a result, these early mergers are thought to have been beneficial to consumers, bringing more reliable service at lower cost.[78]

With the introduction of alternating current, a second merger movement occurred after the turn of the century. This permitted larger generating stations, enabling single firms to serve state-wide areas and affording further cost reductions. The holding company device was used to effect some of those mergers. "In the electric utility industry, holding-company systems trace their origins to finance companies organized by the manufacturers of electrical equipment to promote the sale of equipment, to investment banking houses engaged in the flotation of utility securities, and to engineering interests occupied with supplying technical services to operating utilities."[79] By 1924 holding companies had acquired two-thirds of the installed generating capacity in electric industry. In 1929 they produced eighty percent of the electricity generated in the country.[80]

The states were unable to cope with the holding company development. Despite the capacity for economy and the efficiency of service implicit in the concentration of control and financing and access to superior engineering and other advice which the holding company organization permitted, the device was used to assemble widely-scattered utility properties and to syphon off the economic benefits for speculative purposes. The 1929 crash exposed the frailties of the systems and aggravated injuries to investors. In 1935 Congress assigned to the SEC the task of rationalizing the operations and financing of the holding company systems, abolishing holding companies entirely where they could no longer be justified in terms of sound capitalization and efficient and economic service in contiguous territories.[81] By 1962 only eleven holding company electric systems, providing about twenty percent of the elec-

77. Survey at 18.

78. I. Barnes, The Economics of Public Utility Regulation 63-64 (1947).

79. Id. at 66.

80. FTC, Economic, Financial and Corporate Phases of Holding and Operating Companies of Electric and Gas Utilities, S. Doc. No. 92, Pt. 72-A, 70th Cong., 1st Sess. 36, 38 (1936). Although published in 1936, the document is credited to the 70th Congress.

81. Survey at 19.

tricity generated by the investor-owned segment of the industry, were left.[82]

Mergers did serve the electric industry well in meeting technological financing and other demands at critical times in the past. Why is it that the industry does not more earnestly follow a similar course now? There are subjective reasons known but to management. More to the purpose of this discussion, some of the reluctance stems from objective evaluation of the unencouraging ambiance of the regulatory scene.

III. Regulation

A. *Franchises*

Electric utilities operate under franchises granted by state and municipal authorities. They take three principal forms: corporate charters, certificates of public convenience and necessity from state regulatory commissions, and "local consents" of municipalities. Franchises are not exclusive in character in most instances,[83] but this does not imply that they are readily assignable. The transfer of a franchise can involve considerable difficulties. Legislation might be necessary before a franchise right granted a domestic corporation by charter could be transferred to another corporation. The assent of a regulatory body might be necessary before a certificate of public convenience and necessity or a municipal consent is assigned to another firm. Transfer of such rights might be technically feasible in each such instance, but the antiquity of the grants, the opportunity for intervention by competitors or opponents seeking a negative response or the attachment of burdensome conditions or limitations, the large number of franchises which might have to be processed, and the regulatory delays and litigation involved, all serve to discourage mergers dependent on the assignment or transfer of franchises.[84]

Some of the difficulty might be avoided through a consolidation in which the merging firms lose none of their rights and privileges, where no assignment or amendment of outstanding franchises of each is required to effect their continuing vitality.[85] Where legislation would be required, conservationists, competitors, and others would be afforded an opportunity to seek amendment or limitation of existing rights and

82. Id.

83. See Georgia Power Co. v. TVA, 14 F. Supp. 673 (N.D. Ga. 1936), aff'd, 89 F.2d 218 (5th Cir.), cert. denied, 302 U.S. 692 (1937).

84. Slightly more than half of the states provide for the issuance of certificates of public convenience and necessity for the construction of major property additions by private electric utilities.

85. See N.Y. Bus. Corp. Law § 906 (1963); Owensboro v. Cumberland Tel. & Tel. Co., 230 U.S. 58 (1913).

privileges. Statutory or constitutional restrictions against foreign corporations could restrict opportunity for the transfer of franchises to domestic firms.[86]

B. *The Federal Power Commission*

Electric utilities subject to the jursidiction of the Federal Power Commission must obtain its assent to the acquisition of jurisdictional assets and securities.[87] Section 203 of the Federal Power Act was intended to stop speculation in utility properties, insure that purchases and sales were in the public interest, and prevent transfers of property which might impair the ability of public utilities to render adequate service or impede the coordination of facilities subject to the Commission's jurisdiction.[88] The Commission was intended to have "authority to keep the same kind of check upon the creation of spheres of influence among operating companies that the Securities and Exchange Commission has over holding companies under title I."[89]

Between 1944 and 1964, "the Commission considered 751 acquisitions, involving original plant cost of $1.3 billion and accounting adjustments of $47 million."[90] In 1963, the Commission approved one of its largest

86. See P. Nichols, The Law of Eminent Domain § 3.23(3) (3d ed. J. Sackman 1964).

87. § 203 of the Federal Power Act provides: "(a) No public utility shall sell, lease, or otherwise dispose of the whole of its facilities subject to the jurisdiction of the Commission, or any part thereof of a value in excess of $50,000, or by any means whatsoever, directly or indirectly, merge or consolidate such facilities or any part thereof with those of any other person, or purchase, acquire, or take any security of any other public utility, without first having secured an order of the Commission authorizing it to do so. Upon application for such approval the Commission shall give reasonable notice in writing to the Governor and State commission of each of the States in which the physical property affected, or any part thereof, is situated, and to such other persons as it may deem advisable. After notice and opportunity for hearing, if the Commission finds that the proposed disposition, consolidation, acquisition, or control will be consistent with the public interest, it shall approve the same.

"(b) The Commission may grant any application for an order under this section in whole or in part and upon such terms and conditions as it finds necessary or appropriate to secure the maintenance of adequate service and the coordination in the public interest of facilities subject to the jurisdiction of the Commission. The Commission may from time to time for good cause shown make such orders supplemental to any order made under this section as it may find necessary or appropriate." Federal Power Act, ch. 687, § 203, 49 Stat. 849-50 (1935) (codified at 16 U.S.C. § 824b (1964)).

88. The legislative history is summarized briefly in Duke Power Co., 36 F.P.C. 399, 401-02 (1966). This decision was reversed in Duke Power Co. v. FPC, 401 F.2d 930 (D.C. Cir. 1968) on the ground that the Commission's jurisdiction is limited to the acquisition of jurisdictional facilities.

89. S. Rep. No. 621, 74th Cong., 1st Sess. 50 (1935).

90. FPC, Federal Regulation of the Electric Power Industry Under Parts II and III of the Federal Power Act 26 (1965). By way of comparison, the electric power industry had gross capital assets of $69 billion in 1962. Survey at 11.

transactions, the merger of California Electric Power Company ($166 million) with Southern California Edison Company ($1,440 million).[91]

Application is made to the Commission which determines whether the proposal is consistent with the public interest. The Commission considers "the effect of the proposed action on the applicants' operating costs and rate levels, the contemplated accounting treatment, reasonableness of the purchase price, whether the acquiring utility has coerced the to be acquired utility into acceptance of the merger, the effect the proposed action may have on the existing competitive situation, and finally, whether the consolidation will impair effective regulation either by this Commission or the appropriate state regulatory authority."[92] Accounting for the transaction must conform to original cost principles.

The Commision examines a proposed merger in terms of its consistency with the primary objective of § 202(a) of the Federal Power Act, of promoting and encouraging the maximum regional coordination and interconnection "[f]or the purpose of assuring an abundant supply of electric energy throughout the United States with the greatest possible economy and with regard to the proper utilization and conservation of natural resources . . . ."[93] The Commission also takes into consideration whether the proposal is consonant with the overall objectives of the Public Utility Act of 1935, Title I of which contains the Public Utility Holding Company Act with its "integrated public utility" concept.[94] The appropriateness of this last analysis was pointed up in *Commonwealth Edison Co.*[95] where the acquiring firm was an exempted holding company which might have effected the proposed acquisition by the holding company route (subject to SEC regulation) rather than by a merger in which the acquired firm would cease to exist. However, the Commission has found the merger of noncontiguous electric companies consistent with the public interest under circumstances which indicated that the mergers would expedite interconnections beneficial to the public interest.[96]

To what facilities does the Commission's jurisdiction over acquisitions extend? The Commission observed in its 1966 *Duke Power Co.*[97] opinion:

> We are aware, of course, that Section 203 does not grant us authority over all transactions that could affect the interstate flow of power, the coordination of interstate facilities or the financial stability of the participating parties. It does not cover

91. Southern Cal. Edison Co., 30 F.P.C. 942 (1963).

92. Commonwealth Edison Co., 36 F.P.C. 927, 932 (1966).

93. 16 U.S.C. § 824a(a) (1964) (Federal Power Act, ch. 687, § 202(a), 49 Stat. 848 (1935)).

94. 15 U.S.C. §§ 79a-79z-6 (1964).

95. 36 F.P.C. 927 (1966).

96. Western Light & Tel. Co., 33 F.P.C. 1147, 1149 (1965).

97. 36 F.P.C. 399 (1966).

the sale of distribution or generating facilities by a public utility but this possible limitation on the reach of the section does not mean that the provision with respect to acquisitions should likewise be limited contrary to its purposes as shown by the legislative history. As noted in the *Pennsylvania Electric* case, 9 FPC at 95, Congress confined our jurisdiction with respect to dispositions, where its probable purpose was the preservation of the integration and coordination of jurisdictional facilities.[98]

It should be noted that any purchase of the distribution or generating facilities of one public utility by another would under the present interpretation be covered by the second clause of Section 203(a), thus making possible the rejection of any uneconomic acquisition. It is true that sales of distribution facilities to a person exempted under Section 201(f) would not be covered, but Congress may have felt that there were other adequate controls over uneconomic purchases by such entities.[99]

On appeal, the court ruled that the Commission's jurisdiction does not extend to the acquisition by a public utility company of facilities used in the local distribution of electricity.[100]

But whether there is uncertainty or not over the extent of the Commission's jurisdiction, the record is plain. The investor-owned electric industry has not seen fit to any large degree to acquire facilities and securities subject to the jurisdiction of the FPC, and the Commission lacks the authority to compel on its own motion acquisitions which are in the public interest.

C. *Holding Companies and the SEC*

For almost thirty years, the Securities and Exchange Commission's duties under the Public Utility Holding Company Act involved the physical integration and corporate simplification of the systems of the holding companies which were in existence on January 1, 1938.[101] For all practical purposes, that task has been completed and with it the Commission's ability to exercise any initiative in molding further the organization of the electric power industry to meet regional power supply needs. The Commission's further role will arise from the efforts of regulated holding companies to enlarge their systems by acquiring contiguous properties or by participating in joint ventures to construct generating stations, and the willingness of other firms to place themselves voluntarily under SEC regulation through the requisite acquisition or control of a public utility. Criticism of the fragmented arrangement of power companies in New England[102] and the desire to take advantage of the economies of

98. Id. at 403 (footnote omitted).

99. Id. at 403 n.9.

100. Duke Power Co. v. FPC, 401 F.2d 930 (D.C. Cir. 1968).

101. § 11(b) of the Public Utility Holding Company Act designated January 1, 1938 as the date after which the Commission had the duty to effect the reorganization of the holding company systems. 15 U.S.C. § 79k(b) (1964).

102. See Western Mass. Elec. Co., 39 F.P.C. 723, 758 (1968), modified, 40 F.P.C. 296 (1969).

scale in generation and transmission have led regulated holding companies to undertake merger activities falling within the Commission's domain.[103]

The courts have indicated that despite antipathy shown by Congress in 1935 to public utility holding companies, it is not illegal to create one by acquiring control of a public utility without SEC permission. "The Act was not designed to, nor did it, sound the death knell for public utility holding companies. It does not proscribe such companies nor make them illegal. It does not establish any *per se* rule forbidding the creation of a holding company structure."[104]

Northeast Utilities was the first new public utility holding company created and registered under the Act. In 1966, the SEC authorized Western Massachusetts Companies, an exempted holding company which subsequently changed its name to Northeast Utilities, to acquire stock of the Connecticut Light & Power Company and The Hartford Electric Light Company.[105] This placed under one management electric power operations in adjoining areas of Connecticut and Massachusetts.

On January 2, 1970, the Commission approved a proposed acquisition by Illinois Power Company of the outstanding common stock of Central Illinois Public Service Company and continuance of its status as an exempted holding company following the acquisition. This authorization was granted, however, on condition that the gas properties of both companies be divested. In this instance, both firms are combination electric and gas companies operating in contiguous and interlocking areas in Illinois. They are also holding companies as a result of the ownership by each of twenty percent of the stock of Electric Energy, Inc., a company organized in Illinois to supply power for an Atomic Energy Commission project. Because their operations are intrastate, the two companies have been exempt from the Act,[106] aside from certain provisions relating to acquisitions. The Commission held that without the divestment condition the proposal would be detrimental to the integration aims of § 11(b)(1) of the Act and prohibited by § 10(c)(1).[107] In taking this action the Commission was following the Supreme Court's decision in *SEC v. New England Electric System*[108] which stressed the Congressional objective to eliminate restraints on competition resulting from the control by one holding company system of both gas and electric properties.

103. See Connecticut Yankee Atomic Power Co., 41 S.E.C. 705 (1963); Yankee Atomic Elec. Co., 36 S.E.C. 552 (1955).

104. United Gas Corp. v. Pennzoil Co., 248 F. Supp. 449, 453 (S.D.N.Y.), aff'd per curiam, 354 F.2d 1002 (2d Cir. 1965).

105. Northeast Util., SEC Holding Co. Act Release No. 15448 (April 13, 1966).

106. See §§ 3(a)(1)-(2) of Holding Company Act, 15 U.S.C. §§ 79c(a)(1)-(2) (1964).

107. Illinois Power Co., SEC Holding Co. Act Release No. 16574 (Jan. 2, 1970).

108. 390 U.S. 207 (1968).

It has been asserted that the SEC's administration of the Holding Company Act has served either to run contra to or to discourage regional integration in the electric industry. Firms which are not combination companies have been put off from entering into holding company situations by the Commission's capitalization policy, and by its definition of the types of properties that may be retained in the system.[109] Whatever the reason, the industry has shown little enthusiasm in adopting consolidation proposals which would extend the jurisdiction of the SEC over the industry under the Holding Company Act.

Public utilities with a lower percentage of equity in their capital structures than the SEC might deem suitable for a holding company system would have a jaundiced reaction at the prospect of being required to thicken equity simply because of a change of status, particularly where the investor-owned company is competing vigorously with other forms of energy or where the costs of the industry are rising, which is the current experience. Utility facilities financed by debt securities have a substantially lower cost of service impact than do facilities financed by equity funds. Even at current interest rates of 8½ percent and higher, debt funds are cheaper than equity funds because the interest on debt may serve to reduce income taxes, whereas there must be included in the cost of service an amount for income tax large enough to enable the firm to retain the net return allowed on equity.[110]

When the electric industry became interested in the 1950's in constructing nuclear-fueled electric generating stations, it was found desirable to undertake many of them as joint ventures, with several electric utilities sharing the cost, experience and power plant output. These activities required SEC assent in several instances.

The Commission issued its first order in such a situation in 1955 in the case of a nuclear power generating company to be jointly-owned by twelve utility companies in New England. Yankee Atomic Electric Company was authorized to issue stock under §§ 6(b) and 7 of the Act, several participating utilities already subject to the Commission's jurisdiction were allowed to acquire the stock under §§ 9 and 10, and two exempted utilities acquiring more than ten percent of the Yankee stock received renewed exemptions.[111]

The SEC sought to encourage the use of nuclear fuel by electric utilities by ruling in 1956 that a non-profit firm whose only connection with the

109. See Twentieth Century Fund, Electric Power and Government Policy 375-76 (1948); Loughlin, Is the Holding Company Act Retarding Progress?, 59 Pub. Util. Fort. 819 (1957). Mr. Loughlin was then Chairman of the Connecticut Public Utilities Commission.

110. See Galveston Elec. Co. v. Galveston, 258 U.S. 388, 399 (1922); J. Bonbright, Principles of Public Utility Rates 404 (1961).

111. Yankee Atomic Elec. Co., SEC Holding Co. Act Release No. 13048 (Nov. 25, 1955).

generation of electric power was the ownership or operation of facilities used to produce heat or steam from nuclear fuel, which heat or steam was used to generate electricity, was not an electric utility company within the meaning of the Act.[112] This would not apply to a company which owned both the reactor and the generator.

There is something incongruous about encouraging or even continuing the special regulation by the SEC of the interstate electric industry under the Holding Company Act. The Commission's duty under the Public Utility Act of 1935 was to reorganize (meaning to shrink) the sprawling holding company systems of 1938. The requirement of a "single integrated system" is "the very heart" of the statute.[113] By contrast, the FPC was enjoined by the same statute to encourage the interconnections of power systems; to effect the linkage of systems where such ties did not exist.[114] There is an incompatibility between the two approaches.[115] The SEC cannot, as a practical matter, require that facilities that are disposed of be purchased by the utility most able to utilize them to effect a better integrated organization of the industry. It cannot require the companies under its jurisdiction to acquire facilities needed for a better coordinated utility system. The Commission has indicated that noncontiguous service areas cannot be retained by an integrated electric utility system unless those areas "are either physically interconnected or are capable of physical interconnection so that, under normal conditions, they may be economically operated as a single interconnected . . . system and in other respects meet the definition of an integrated public utility system as applied to electric utility companies set forth in § 2(a)(29)(A) of the Act."[116] The Federal Power Commission, as we have seen, takes a more liberal approach to mergers involving noncontiguous electric properties.[117]

More fundamentally, the SEC lacks the power to regulate the rates and charges of the public utilities which it regulates and whose costs—or opportunities for economies—might be directly affected either by Commission action or by the discouragement of activities occasioned by the possibility that Commission jurisdiction might follow.[118] The industry

112. Amendment of Rule U-7, SEC Holding Co. Act Release No. 13221 (July 13, 1956). See Armstrong, Nuclear Power Projects and the Holding Company Act, 59 Pub. Util. Fort. 721 (1957).

113. SEC v. New England Elec. Sys., 384 U.S. 176, 180 (1966); North Am. Co. v. SEC, 327 U.S. 686, 704 n.14 (1946).

114. 15 U.S.C. §§ 79k(b)(1)(A)-(C) (1964).

115. See Loughlin, supra note 109.

116. New England Elec. Sys., 38 S.E.C. 193, 199-200 (1958); see Federal Light & Traction Co., 15 S.E.C. 675, 679-81 (1944).

117. See Commonwealth Edison Co., 36 F.P.C. 927 (1966).

118. See Alabama Elec. Cooperative, Inc. v. SEC, 353 F.2d 905 (D.C. Cir. 1965), cert. denied, 383 U.S. 968 (1966).

needs something better than the current division of federal jurisdiction—and regulatory gaps—as to mergers and acquisitions.[119]

IV. New Interstate Generation and Transmission Facilities

Our discussion to this point has indicated the nature of the mosaic of regulation over the generation and transmission functions of the electric utilities. While appearing to be complementary, it actually contains gaps and overlappings which ill-serve utilities and consumers. On the one hand, regional coordination arrangements are regulated effectively by no government body, except perhaps where the "region" encompasses an area the size of a single state and that state effectively regulates the firms involved. On the other hand, power plants and transmission lines, assuming them to be properly sited and sized in terms of regional requirements, are subject to too many different authorities with the capacity to undo each other's efforts and to delay the installation of needed facilities. The consequence is greater expense and a larger risk that the industry will lack sufficient reserve capacity to meet regional needs.

In its 1964 National Power Survey, the Federal Power Commission estimated that between 1967 and 1980 some three hundred million kilowatts of additional generating capacity would be needed, of which eleven percent would be at hydro-electric sites, thirty-eight percent in fossil-fueled thermal plants located near the load center, twenty-two percent in thermal plants at the mine mouth, twenty-two percent in nuclear-fueled thermal plants, six percent in pumped-storage plants, and a small amount in peaking plants.[120] We shall examine the regulatory pattern in terms of those new plants and their associated high voltage transmission lines.[121]

A. *Federal Government*

The Federal Power Commission will have jurisdiction over some of the hydroelectric and pumped-storage projects installed in the future, al-

119. H.R. 15516, 91st Cong., 2d Sess. (1970), pending in Congress, embodies a proposal of the SEC which would transfer all of the functions and administrative authority now vested in the SEC under the Public Utility Holding Company Act of 1935 to the FPC.

120. See Survey at 215, Table 56.

121. See Survey at 216-17, Figure 116. "About 40 percent of the generation which will be serving the loads of 1966 can be classed as generation near the source of the fuel. . . .

"The choice between locating generation at the fuel source or at load center has in the past been determined by economic comparisons relating to the cost of delivering energy to the load by fuel transport as opposed to transport of energy by wire. These are still the main considerations . . . .

"Several additional factors are beginning to have some influence in the selection studies. As metropolitan areas grow, the requirements for controlling pollutants are becoming more exacting and good metropolitan area sites will become less available and more expensive." Survey at 207.

though it appears that federal agencies such as the Tennessee Valley Authority and Bonneville Power Administration which are not regulated in this regard by the FPC may install the lion's share of new hydroelectric capacity. The AEC must approve nuclear reactors to be installed in thermal generating stations.

1. Federal Power Commission

Hydroelectric projects constructed by persons on waterways subject to the jurisdiction of the Commission or on public lands must be licensed by the Federal Power Commission. This is true whether the facilities are constructed by an investor-owned utility, a municipality, a state, or instrumentality of a state.[122] Turning to Con Ed's present supply difficulties, it is important to recognize that they are due in part to postponement of construction of the proposed two thousand-megawatt pumped-storage plant on Storm King Mountain near the village of Cornwall, New York, a project under the jurisdiction of the Federal Power Commission. Con Ed first applied to the Commission in 1963 under § 4(e) of the Federal Power Act to install the one hundred sixty-one million dollar project. A license was issued by the Commission in 1965 despite the opposition of intervenors concerned with the effect of the proposed power plant and transmission lines on the scenic beauty of the area.[123] On review, the court of appeals ruled that the Commission had failed in its statutory duty because it had not examined possible alternatives to the proposal of Con Ed. The Commission's role as representative of the public interest "does not permit it to act as an umpire blandly calling balls and strikes for adversaries appearing before it; the right of the public must receive active and affirmative protection at the hands of the Commission."[124] The case was remanded to the Commission for further hearings. Four years later, after extensive further hearings, a Federal Power Commission examiner once more authorized Con Ed to construct the pumped-storage project at Cornwall,[125] subject to review by the Commission and appeal to the courts.

This experience is relevant in considering alternative remedies to the present inadequacies of regulation. The Federal Power Commission's actions are subject to judicial review, with time lags that sometimes delay a project. At the same time, it must be acknowledged that the fact of such review has not proven to be an intolerable burden on the construction of interstate natural gas pipelines which have been involved some-

122. See §§ 201(3)(5), (4)(e) of Federal Power Act, 16 U.S.C. §§ 796(5), 797(e) (1964).

123. Consolidated Edison Co., 33 F.P.C. 428, rev'd sub nom. Scenic Hudson Preservation Conf. v. FPC, 354 F.2d 608 (2d Cir. 1965), cert. denied, 384 U.S. 941 (1966).

124. Scenic Hudson Preservation Conf. v. FPC, 354 F.2d 608, 620 (2d Cir. 1965), cert. denied, 384 U.S. 941 (1966).

125. Consolidated Edison Co., No. P-2338 (FPC, Dec. 23, 1969).

times in competitive disputes over which the Commission has quite complete licensing powers.[126]

The FPC has no jurisdiction under existing legislation over the eighty percent of generating capacity which is to be installed by 1980 in thermal plants fueled by nuclear and fossil forms of energy.

2. Atomic Energy Commission

In 1968, nuclear energy provided less than one percent of the electric power generated by investor-owned utilities.[127] At the end of 1968, less than two million kw of generating capacity was installed in nuclear-fueled plants, as compared to one hundred ninety-seven million kw of capacity in fossil-fueled thermal plants.[128] In the third quarter of 1969, electric utilities had eighty nuclear-fueled generating units totaling approximately sixty-six million kw of capacity and two hundred and thirty-nine fossil-fueled units with a total capacity of ninety-eight million kw under construction or on order.[129]

The Atomic Energy Commission has responsibility to see to it that atomic reactors used to generate electricity are as safe from hazards of radioactivity as the state of the art permits.[130] Extensive hearings are sometimes necessary in order to dispose of the safety issues raised by intervenors opposed for aesthetic, competitive and other business reasons to the proliferation of nuclear-fueled thermal generation plants. The Commission has sought to limit the scope of the problems which it must examine and the First Circuit Court of Appeals has ruled that the Commission is not required under the statute which it administers to consider the effect upon stream pollution of heated water circulated through an atomic power plant for cooling purposes.[131]

The Commission has had some success in its efforts to avoid consideration of antitrust issues in licensing proceedings because the licenses being challenged were for reactors classified as "research and development" under § 104(b) of the Act.[132] However, when the Commission finds that a reactor is of "practical value" for commercial or industrial purposes, it will issue licenses under § 103 of the Act. Before a commercial license is issued, the AEC is required to notify the Attorney General of the proposed license and conditions thereof. The Attorney General must then advise the Commission whether "the proposed license would tend to

126. See Northern Natural Gas Co. v. FPC, 399 F.2d 953 (D.C. Cir. 1968); Miller, Competition in Regulated Industries: Interstate Natural Gas Pipelines, 47 Geo. L.J. 224 (1958).

127. FPC, Statistics of Privately Owned Electric Utilities in the United States ix (1968).

128. Id. at x.

129. Id.

130. Atomic Energy Act of 1954, 42 U.S.C. § 2201(b) (1964).

131. New Hampshire v. AEC, 406 F.2d 170 (1st Cir.), cert. denied, 395 U.S. 962 (1969).

132. Cities v. AEC, No. 21,706 (D.C. Cir., Dec. 5, 1969).

create or maintain a situation inconsistent with the antitrust laws, and such advice shall be published in the Federal Register."[133]

It seems but a matter of time before technology or legislation brings the licensing of reactors to a state where the Commission must hear and consider antitrust issues in determining public interest aspects of reactor licenses.[134]

No grant of further jurisdiction to the AEC could overcome the deficiencies in technology and equipment, and lags in delivery and construction schedules, which have plagued Con Ed at its Indian Point nuclear-fueled thermal plant or General Public Utilities at the Oyster Creek plant of its subsidiary, Jersey Central Power & Light Co.[135] What must be considered, nonetheless, is a rationalization of the jurisdiction under which nuclear-fueled plants installed as part of an interstate grid are authorized. Something must be done to avoid the present situation under which the public interest considerations of a nuclear-fueled generating station may be contested before the AEC and the SEC as well as before state, county and local authorities.[136]

3. State and Local Authorities

A slight majority of the states require investor-owned utilities to obtain certificates of public convenience and necessity before constructing major power plants and transmission lines.[137] In some areas this jurisdiction has been extended to Rural Electrification Administrations as well.[138] Where this jurisdiction is sufficiently large, it permits the state authorities to press for the rationalization of the construction of new power supply facilities on a statewide basis. Where states do not cover a sufficiently large geographic area, such jurisdictional capability may prove illusory in terms of effective results. The most efficient electric generating plants have too large a capacity to be installed simply to supply the market growth in one of the smaller states.[139] Private power projects must and are being mounted in terms of regional requirements and the authoriza-

133. 42 U.S.C. § 2135(c) (1964).

134. See ABA Section of Pub. Util. Law, 1969 Annual Report 79.

135. See Main, A Peak Load of Trouble for the Utilities, Fortune, Nov. 1969, at 116-19.

136. In Jersey Cent. Power & Light Co., 61 P.U.R.3d 395, 399-400 (N.J. Bd. of Pub. Util. Comm'rs 1965), the State Commission held that while the Atomic Energy Act preempted the State from nuclear reactor regulation, such preemption did not prohibit the State from regulating other matters such as thermal water pollution, or the effect of discharge water on shoaling or potable water supplies.

137. See FPC, State Commission Jurisdiction and Regulation of Electric and Gas Utilities 28-29 (1960).

138. See Southern Ind. Gas & Elec. Co. v. Indiana Statewide Rural Elec. Cooperative, Inc., 242 N.E.2d 361 (Ind. 1968).

139. See Loughlin, supra note 109.

tion of such projects must entail a surrender by each state commission of some of its parochial concern in the interests of all of the affected market.

Where the certificate of public convenience and necessity is accompanied by a power of eminent domain, the successful completion of proceedings before the state commission may provide the utility with sufficient authority to build a new generating plant or transmission lines without further interruption. But in some states, local authorities may be able thereafter to oppose the design and routing of transmission lines on aesthetic grounds, overriding the determination by the state commission that the facilities were well designed for the purposes indicated and the route in the public interest.[140]

There is something particularly desirable in affording local persons—those imposed upon most directly by the construction of new electric utility facilities—an opportunity to state their objections. Where possible, they should be permitted after a hearing to effect appropriate modifications in design and routing which would limit injuries to taste, health or safety of the affected public. But where opportunity for this accommodation is afforded at several different levels of government with relation to the same generation and transmission facilities, a burden of harassment, delay,[141] and cost is imposed which injures both utility and consumer. Where utilities and consumers in other states are injured by brown-outs or power failures traceable to such local procedures, a condition is created that might well invalidate local regulation because it imposes an undue burden on interstate commerce.[142]

V. Suggestions

A. *The Problem*

There are several ways in which the present difficulties might be overcome. A great variety of legislation has been introduced in Congress from time to time dealing with one facet of the problem or another.[143] The

140. See Boston Edison Co. v. Board of Selectmen, 355 Mass. 79, 242 N.E.2d 868 (1968); cf. Town of Framingham v. Department of Pub. Util., 355 Mass. 138, 244 N.E.2d 281 (1969).

141. "A few years ago, utilities generally found four years to be adequate for the design and construction of most generating capacity. Lead time for fossil-fuel units now ranges from four and a half to five and a half years, and about a year longer for nuclear additions.

"Lead time for transmission additions has ranged from one and a half to two and a half years depending upon line length, right-of-way problems and terrain, and type of construction. More recently, it has increased to two to three years and to as high as four and one half years for some EHV additions. Considering these trends, firm plans for new facilities should be formulated as far as six years in advance of the date of required initial operation." FPC, Prevention of Power Failures 43 (1967).

142. See Pennsylvania v. West Virginia, 262 U.S. 553 (1923); Gibbons v. Ogden, 22 U.S. (9 Wheat.) 1 (1824).

143. This legislation is summarized each year in the Annual Report of the FPC and

piecemeal approach encourages hope in the resolution of some part of the tangle, but it serves to divert recognition from the fact that the problems are intertwined. A more direct, time-saving answer might be found in a statutory reorganization of the interstate electric power industry, a redrafting of the spheres of regulatory responsibility, and a reallocation of regulatory resources. This should only be done on the basis of a thoroughgoing congressional study in which it will first be necessary to identify the problem. At the risk of oversimplification, it might be summarized in a series of propositions like the following:

1. Future supplies of interstate electric power must be planned and provided on a regional basis in the interest of conservation of natural resources, enjoyment of economies possible only with the most modern power generation and transmission equipment, reduction of competing demands on the capital markets at a time of high interest rates, and the provision of adequate service at the lowest reasonable cost to consumers.

2. To provide a sensible base for future planning, existing generation and transmission facilities should be operated in terms of regional supplies and market requirements.

3. All public interest aspects of each new interstate generation and transmission project should be heard, considered, and resolved in one forum after which, subject to court review, the decision of that forum as to facilities to be built and on what terms shall be final.

4. Jurisdiction over interstate generation and transmission facilities and service through such facilities should be separated from jurisdiction over distribution facilities and service and lodged in a single federal authority. Furthermore, the interstate facilities should be segregated by ownership and/or contract from distribution facilities and operations to permit effective licensing and rate regulation.

5. Competition should be eliminated from the electric power industry only to the extent necessary to accomplish effective regulation and a clear statutory exemption should be provided where competition must be eliminated for that purpose.

6. State regulation should be made more effective by the remedy adopted for better regulation of interstate activities in the electric industry.

B. *A Possible Remedy*

The following remedy has been drafted to meet the problem as just visualized. Little of it is novel. Most of it reflects regulatory concepts employed in other industries and proposals previously suggested to Con-

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in the Annual Report of the ABA Section of Public Utility Law. E.g., FPC, 1966 Annual Report 181-87; ABA Section of Pub. Util. Law, 1969 Annual Report 96-99.

gress. It is intended to apply to the investor-owned sector of the industry, except where otherwise specifically provided.

1. Federally-Chartered Regional Corporations

Congress shall enact a statute providing for the chartering of investor-owned regional public utility corporations empowered to engage in the generation and transmission of electric energy in interstate and foreign commerce. There should be but one such corporation for each region. The geographical extent of each region might be specified by the enabling statute, subject to amendment after public hearing by the federal agency assigned overall regulatory jurisdiction.

2. Transfer of Existing Interstate Facilities

The law should define generation and transmission in interstate and foreign commerce and require that all such facilities, together with their related easements, located within a region shall be transferred to the local federally-chartered regional public utility corporation at book value in exchange for its securities, to the end that but one investor-owned firm is engaged in such activities in each region.

3. Capitalization and Consideration

The capitalization of the regional public utility corporation shall be such as to enable it to pay for the acquired facilities by the "roll-over" of a proportional part of the debt of the transferring firm and an appropriate amount of equity securities without increasing the cost of electricity to the ultimate consumer or injuring the investor. Equity securities might be authorized for sale to the distribution companies or to the public to obtain funds for working capital requirements. Equity securities obtained in this manner from a regional public utility corporation by a public utility holding company or by a public utility shall be redistributed to the shareholders of such firms in a manner designed to eliminate every holding company relationship from the interstate electric industry and forbid its recrudescence.

4. Management

The boards of directors of the regional public utility corporations might be chosen initially by the Federal Power Commission regional advisory councils of the industry, and thereafter in the usual manner by the shareholders.

5. Federal Regulation

A federal agency—probably the Federal Power Commission—shall be granted complete licensing, financing, and rate jurisdiction over the

regional public utility corporations. A "grandfather" license or certificate of public convenience and necessity will issue immediately upon transfer of existing jurisdictional facilities to the regional public utility corporation, giving it all the authority needed to own and operate such facilities. Wholesale contracts shall be negotiated within a specified time between the regional public utility corporation and the firms which it shall supply with power for resale, which wholesale contracts shall be filed with the Commission and subject to its rate jurisdiction. No new generation or transmission facilities shall be constructed in interstate or foreign commerce except by a regional public utility corporation and only after issuance of an authorizing order of the federal agency based upon application, notice, and hearing. The final order shall be subject to court review. The initiative for proposing new plans shall rest with the regional public utility corporation, the federal agency being empowered to require interconnections and wholesale service only upon application or in emergency situations whenever such action is required by the public interest. This will not adversely affect existing service, nor require the construction of substantial additional generation or transmission facilities by the regional public utility corporation.

6. Local Hearings

In order to provide appropriate consideration of matters of local interest such as air and water pollution, aesthetics, safety, and potential injury to health, hearings shall be afforded on application to construct generation and transmission facilities before an examiner of the federal agency appointed under the Administrative Procedure Act,[144] who shall hear the proceedings in the geographical area most directly affected by the proposed facilities.[145] There shall be no other public hearing on the same project before any other federal, state or municipal body. When issues are raised as to matters such as safety of nuclear reactors or pollution of water and air, jurisdiction over which is now vested in another federal agency, such agency shall be given a reasonable opportunity to study the issue and to submit recommendations thereon, through expert and policy witnesses, in the proceedings before the examiner.

7. Eminent Domain

The regional public utility corporation shall enjoy the power of eminent domain, enforceable in federal courts, for the construction of generation and transmission facilities authorized by the federal agency.

144. See 5 U.S.C. § 3105 (Supp. IV, 1969). Hearing Examiners serving at the Federal Power Commission hold office under this statute.

145. "In fixing the time and place for hearings, due regard shall be had for the convenience and necessity of the parties or their representatives." 5 U.S.C. § 554(b) (Supp. IV, 1969).

8. Cooperation with State Regulatory Authorities

The federal agency shall collect cost and market data from the regional public utility corporations and from all of their wholesale customers, which data shall be made readily available to state regulatory agencies for use in regulating retail rates and services in the electric industry.

C. *Discussion*

1. The Segregation of a Vertically Integrated Industry

The conclusion that the generation and transmission of electric power might reasonably be segregated from distribution was suggested over twenty years ago on the basis of a thoroughgoing study of the relations between government and the electric power industry. The proposition was stated by the Power Committee of a Twentieth Century Fund Study Group "in the belief that it is not impossible of realization and that it offers real promise for the orderly and satisfactory working out of the future of this industry."[146] The logic of the development was expressed in these terms:

> In many, perhaps in most, major divisions of business activity the functions of production and distribution are separated. In this [electric] field they are usually combined. . . . The reason is in part historical, and the fact that the industry is in such great measure so completely organized in this manner obviously makes any radical alteration bristle with financial, legal and other difficulties which discourage even the thought of change. That the combination of functions is not inevitable, however, is shown by the fact that an increasing number of distribution systems, usually municipally-owned, are already divorced from the generating unit. . . . [citing TVA, British, and Canadian experiences.]
>
> Such a division of function would greatly simplify the problem of regulation. Let us suppose that generation and long-distance transmission became, either separately or combined, the function of one group of units, and that from the selected substations another group, separated in organization though not necessarily in ultimate ownership, took over. It is apparent that many, if not most, of the matters of purely local concern which are the desirable province of a local regulatory body are now set apart from the great and doubtful fields in which the exercise of federal authority is indicated as necessary.[147]

The division of functions has not occurred in the investor-owned sector of the electric industry in the United States, as it has in the federal sphere,[148] except in cases of generating companies organized as joint ventures.

No governmental body has jurisdiction to compel this regulatory

146. Twentieth Century Fund, supra note 109, at 753. The Presidents of two investor-owned electric utilities were members of the Power Committee which expressed these views.

147. Id. at 752.

148. Power is ordinarily sold from federal projects at wholesale. The federal government also has financed transmission lines to facilitate the delivery of bulk power to wholesale customers.

rationalization of the industry. The gap can only be filled by legislation. Effective jurisdiction must be provided over existing as well as future facilities.

There are few wholesales of electricity in interstate commerce. Due to the industry's integrated organization, most power is sold at retail by its producer.[149] Wholesale rates provide an essential tool for allocating costs of interstate systems between states and provide the basis for more effective regulation. Wholesales must be brought into being at the point where interstate transmission ends and distribution begins. This can be done effectively by requiring that separate corporate entities be involved on each side of the delivery point.

2. Regional Organization

A regional rather than national approach to the power supply problem appears warranted by experience, technology, and markets. Whether each region should be as large as the six used by the Federal Power Commission in its National Power Survey or something smaller should be determined by Congress after considering the evidence of the needs of the industry at the time the legislation is adopted as well as the subsequent ten or twenty years.[150]

This should provide stability to the industry. A regional organization would serve local interests better. A solution must be found which avoids the opportunity for prejudices against particular areas of the country. At the beginning of World War II, when the FPC first exercised its emergency power over interconnections, it had occasion to publicize power shortages in the southeast. The Georgia Public Service Commission protested this action as "unfair," arguing that it did irreparable harm to state efforts to attract new industries and a fair share of the war plants being built.[151] Sensitivity to regional prejudices even in regulated industries was also apparent in the antitrust complaint filed by the state of Georgia against the Pennsylvania Railroad and others.[152] Suing as *parens patriae,* the state argued that several railroads had established tariff patterns which favored the export trade from the east coast ports to the disadvantage of southern ports. The Supreme Court brushed aside the

149. See note 30 supra.

150. Mr. Donald C. Cook, President of the American Electric Power Company system, has asserted that ultimately twelve to fifteen fully integrated systems would be brought into being in this country. "This development may be a long time coming—perhaps as long as twenty-five to fifty years—but it could and certainly should occur much sooner. . . . The systems I envision would each be fully integrated, operated under one management, and doing the complete job of generation, transmission, and distribution." Cook, Coordination and the Small Electric Power System, 80 Pub. Util. Fort. 19, 24 (1967).

151. R. Baum, The Federal Power Commission and State Utility Regulation 256 (1942).

152. Georgia v. Pennsylvania R.R., 324 U.S. 439 (1945).

contention that the tariffs had been filed with the Interstate Commerce Commission. "Georgia as a representative of the public is complaining of a wrong which, if proven, limits the opportunities of her people, shackles her industries, retards her development, and relegates her to an inferior economic position among her sister States."[153]

The assignment to a regional public utility corporation of the sole initiative in planning expansion programs to meet local electric power needs should reduce substantially the opportunity for complaints that the federal agency is engaged in discrimination to the disadvantage of some region of the country.

The practical success of the public utility holding companies in planning and operating regional electric systems provides a further argument for regional organization. The Southern Company system covers an area of approximately 122,000 square miles in the states of Alabama, Georgia, northwestern Florida and southeastern Mississippi. With almost fifty years of experience behind it, the system has been able to evolve an integrated and fully coordinated generating and transmission system.[154] The American Electric Power Co. system, which produces more electricity than any privately-owned electric system, serves an area of almost fifty thousand square miles extending from the states of Michigan and Indiana through Ohio, Kentucky and West Virginia into Virginia and Tennessee. This system is completely integrated internally through fourteen thousand circuit miles of transmission lines which interconnect the operating companies and nineteen other systems at sixty-six locations.

> The AEP system was developed and operated as a coordinated unit to provide full service, to provide economy in capital outlay and to achieve economy in operations by using the lowest cost sources of power based on the needs of the entire system, and these objectives have been carried forward to present day operations. In effect, all of the electric energy generated by the generating units is delivered to the seven state AEP transmission system from which all of the customers in the pool are supplied.[155]

3. Use of Federal Charters

Federal charters would be preferable to state charters. They would provide greater assurance that the regional public utility corporations engage only in the electric utility business and in no other activity not specifically authorized by Congress. Further, they should reinforce the antitrust exemption necessary for the consolidation of all of the interstate facilities and operations in a given region.

During the Constitutional Convention of 1787, James Madison unsuc-

153. Id. at 451.

154. Southeast Regional Advisory Comm'n, supra note 47, at 4-5.

155. Indiana & Mich. Elec. Co., 33 F.P.C. 739, 744 (1965), enforced, 365 F.2d 180 (7th Cir.), modified, 33 F.P.C. 1252, cert. denied, 385 U.S. 972 (1966).

cessfully recommended that Congress be afforded explicit power to charter corporations "where the public good may require them, and the authority of a single State may be incompetent."[156] Madison sought the same objective a second time when Benjamin Franklin moved to empower the national government to build canals, inferring that interstate canals might be frustrated where one of the interested states would not be willing to charter a corporation to construct the segment of the canal within its territory. His motion was rejected.[157] In time, aided by the arguments of Alexander Hamilton and Daniel Webster, it came to be recognized that the federal government had the power to charter corporations as a necessary attribute of government in the areas in which it was sovereign.[158] While it never became fashionable to use federal charters for business purposes (other than for banking),[159] it makes good sense to use such charters where a major reorganization of an essential interstate business is contemplated.

4. Grant of Licensing Authority to a Federal Agency

The possibility of giving the FPC licensing authority over interstate transmission facilities was considered in 1935. Congress was advised that the grant of authority was not required by existing circumstances, but that the question could be taken up later, should circumstances change.[160] Interestingly, Congress did not see fit to give the Federal Power Commission complete jurisdiction over the construction of interstate natural gas pipelines when it enacted the Natural Gas Act in 1938.[161] After some experience this was found unsatisfactory and the Commission's power was enlarged in 1942 by an amendment to the Act.[162]

It is contemplated that future financing of the regional public utility corporations would be subject to exclusive FPC jurisdiction.

5. Antitrust

The acquisition of interstate facilities by the regional public utility corporations would be sanctioned by the statute authorizing the grant of their charters and by the "grandfather" licenses authorizing their

156. 4 The Writings of James Madison 229 (G. Hunt ed. 1903).

157. 3 U.S. Dep't of State, Documentary History of the Constitution of the United States, 1787-1870, at 744-45 (1900).

158. McCulloch v. Maryland, 17 U.S. (4 Wheat.) 316 (1819).

159. A short recital of the history of the use of federal charters for business purposes may be found in Miller, The American Corporation in American Foreign Trade: A Case of Ill-Defined Private Rights and Unrefined Public Power, 70 Dick. L. Rev. 480, 487-92 (1966).

160. See note 28 supra.

161. 52 Stat. 821 (1938), as amended 15 U.S.C. §§ 717-717w (1964).

162. Act of Feb. 7, 1942, ch. 49, 56 Stat. 83, amending ch. 556, § 7(c), 52 Stat. 825 (1938) (codified at 15 U.S.C. § 717f(c) (1964)).

operations. The statute should make it clear that these activities, as well as future expansion programs, will enjoy an exemption from the antitrust laws. Repeal of the antitrust laws by implication is not favored.[163]

No matter how large the territory of the regional corporation might be, it will be necessary to have interconnections with the facilities of adjacent regional public utility corporations, and interchange and sales agreements governing the use of such facilities. Such agreements ought to be subject to the jurisdiction of the federal agency with provision that the agency weigh antitrust considerations in reviewing them to determine whether they offend against the public interest. An exemption from the antitrust law should follow such approval,[164] although provision might be made for challenge during a limited period of time under the antitrust laws by suit in a United States district court by the Attorney General.[165]

6. Coordination with State Regulatory Commissions

Many, perhaps most, state public service commissions are ill-equipped to carry out the regulatory duties thrust upon them. A recent Senate subcommittee study shows that more than half of the state commissions have at best only one or two lawyers and rate analysts. Some have none at all. In twenty instances, the commissions had only one or two accountants. The commissions lacked security analysts in twenty-six states.[166] This lack of staff and other resources might account for much of the regulatory inactivity which has led to criticism[167] and to demands for legislative reform.[168]

There is no doubt that the state public service commissions are heavily burdened. It is equally evident that they do not welcome assistance which comes in the form of expanded federal activity.[169]

The power of Congress to legislate over public utility activities in interstate commerce is not seriously questioned. How far Congress should exercise that power over the electric industry is the bone of contention. A reasonable solution ought to introduce effective regulation where none can exist now, and improve regulation where present jurisdiction may be made more effective.

163. Georgia v. Pennsylvania R.R., 324 U.S. 439, 456-57 (1945).

164. See Federal Maritime Comm'n v. Aktiebolaget Svenska Amerika Linien, 390 U.S. 238 (1968); Carnation Co. v. Pacific Westbound Conference, 383 U.S. 213, modified, 383 U.S. 932 (1966).

165. See, e.g., the provisions in the Bank Merger Act of 1960, 12 U.S.C. § 1828(c) (Supp. IV, 1969). See also United States v. First City Nat'l Bank, 386 U.S. 361 (1967).

166. Subcomm. on Intergovernmental Relations of the Senate Comm. on Governmental Operations, State Utility Commn's, S. Doc. No. 56, 90th Cong., 1st Sess. 8-12 (1967).

167. For a thoughtful assessment of the situation, see Welch, The Effectiveness of Commission Regulation of Public Utility Enterprise, 49 Geo. L.J. 639 (1961).

168. See Hearings on S. 607 Before the Subcomm. on Intergovernmental Relations of the Senate Comm. on Governmental Operations, 91 Cong., 1st Sess. 19 (1969).

The construction of power plants and extra high voltage transmission lines designed to provide more reliable service in a multi-state area, the multiplication of interconnections between systems and their associated agreements, and regional planning of future power supplies are widening the gap every day between the interstate segment of the industry and effective state regulation. Driven by technological developments and drawn by the virtues of economies of scale, the industry is unlikely to turn back. Federal action alone can fill this regulatory gap. There is precedent for this in the Natural Gas Act.[170]

One effect of federal regulation of interstate wholesale rates is the allocation of costs of interstate activities between states.[171] This function is seriously circumscribed at present by the dearth of wholesale transactions in this vertically integrated industry. Some surrogate for wholesales might be discovered. But the need for enlarging federal licensing jurisdiction over interstate electric facilities suggests that the separation of distribution—which the state commissions can and do regulate—from generation and transmission by corporate reorganizations is the more sensible answer. The statute would draw a "bright line"[172] between federal and state functions, making each more effective by the interposition of a wholesale agreement between the regional public utility corporation and the local distribution company.

VI. Conclusion

The investor-owned electric industry has long since outgrown the regulatory jacket which Congress last tailored for it by enacting the Public Utility Act of 1935.[173] A consensual approach to the planning of future electric power supplies, based on the voluntary cooperation of the industry, is an inadequate substitute for effective regulation.

The industry is large and complex. No remedy ought to be legislated except on the basis of a thoroughgoing study of the shortcomings of the present regulatory pattern and the inadequacies of the industry's organizational structure. The Federal Power Commission's current revision of its National Power Survey should provide a good beginning.

Enough is known of the problems now to offer suggestions as to the nature of possible remedies. One outlined in this text would concentrate responsibility for the planning, construction and operation of generation and transmission facilities in interstate and foreign commerce in investor-owned regional public utility corporations. These would be regulated

169. Id. at 216-70.

170. 52 Stat. 821 (1938), as amended 15 U.S.C. §§ 717-717w (1964).

171. J. Baum, Transforming Public Utility Regulation 330 (1950).

172. FPC v. Southern Cal. Edison Co., 376 U.S. 205, 215 (1964).

173. Act of Aug. 26, 1935, ch. 687, §§ 1-33, 49 Stat. 803 (codified at 15 U.S.C. §§ 79-79z-6 (1964)).

effectively and entirely by one federal agency. Other interested federal agencies with jurisdiction over such matters as safety, health, environment, and aesthetics would serve it in an advisory capacity. The regulation of retail service and rates would remain undisturbed, the prerogative of state and local authorities.

Whatever steps are going to be taken should be initiated as soon as possible. The lead times for constructing thermal electric generating stations and transmission lines have so lengthened that decisions made in the past will dominate industry activities during the next few years. Tomorrow's legislative changes, no matter how desirable, might have little effective influence on plant installation and operation for some time to come.