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The Northwest's Hydroelectric Heritage: Prologue to the Pacific Northwest Electric Power Planning and Conservation Act

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THE NORTHWEST'S HYDROELECTRIC HERITAGE: PROLOGUE TO THE PACIFIC NORTHWEST ELECTRIC POWER PLANNING AND CONSERVATION ACT

Michael C. Blumm*

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Natural resources lawyers are creatures of their environment. As a result, the practice of natural resources law exhibits a strikingly regional character. For example, in the arid West, natural resources practice typically involves water rights or mining issues.¹ In the Southwest, oil and gas development consumes a significant amount of a practitioner's time.² In the South, wetlands development is a particular concern,³ while the resources lawyer in the populous areas of the East, Middle West, and California is likely to have clients with hazardous waste disposal concerns.⁴ Although natural resources practice in the Pacific Northwest can involve all of these issues, the predominant regional resources conflicts have centered around timber,⁵ fishing,⁶ and water power.⁷

Natural resources law, a relatively new area of legal practice and study,⁸ is only beginning to probe its historical roots. Yet, it is clear that many of today's resource conflicts are legacies of the policies and programs of earlier eras.⁹ This is particularly true in the Pacific Northwest. Although historical perspective has illuminated Pacific Northwest legal

1. See generally F. TRELEASE, *WATER RIGHTS* (3d ed. 1980); C. MEYERS & A. TARLOCK, *WATER RESOURCE MANAGEMENT* (2d ed. 1980); G. COGGINS & C. WILKINSON, *FEDERAL PUBLIC LAND AND RESOURCES LAW* (1981).

2. See generally C. MEYERS & H. WILLIAMS, *OIL AND GAS LAW* (1971).

3. See generally T. SCHOENBAUM, *ENVIRONMENTAL POLICY LAW* 456-98 (1982); W. RODGERS, *HANDBOOK ON ENVIRONMENTAL LAW* 399-409 (1977); Blumm, *The Clean Water Act's Section 404 Permit Program Enters Its Adolescence: An Institutional and Programmatic Perspective*, 8 *ECOLOGY L.Q.* 409 (1980).

4. See generally T. SCHOENBAUM, *supra* note 3, at 585-638; F. SKILLERN, *ENVIRONMENTAL PROTECTION: THE LEGAL FRAMEWORK* 5, 188-224 (1981); Andersen, *The Resource Conservation and Recovery Act of 1976: Closing the Gap*, 1978 *WIS. L. REV.* 633; Schnapf, *State Hazardous Waste Programs Under the Federal Resource Conservation and Recovery Act*, 12 *ENVTL. L.* 679 (1982).

5. See generally *A Symposium on Federal Lands Forest Policy*, 8 *ENVTL. L.* 239 (1978).

6. See Blumm, *Hydropower v. Salmon: The Struggle of the Pacific Northwest's Anadromous Fish Resources for a Peaceful Coexistence with the Federal Columbia River Power System*, 11 *ENVTL. L.* 211 (1981); Landau, *Empty Victories: Indian Treaty Fishing Rights in the Pacific Northwest*, 10 *ENVTL. L.* 413 (1980).

7. See generally remaining articles in this Symposium issue; *Symposium on the Northwest Electric Power Planning and Conservation Act*, 13 *ENVTL. L.* Nos. 3 & 4 (forthcoming, 1983); Foote, Larsen & Maddox, *Bonneville Power Administration: Northwest Power Broker*, 6 *ENVTL. L.* 831 (1976); Hittle, Larson, Randall & Michie, *Pacific Northwest Power Generation, Multi-Purpose Use of the Columbia River, and Regional Energy Legislation: An Overview*, 10 *ENVTL. L.* 235 (1980); Luce & Kaseberg, *The Bonneville Power Marketing Area Legislation: Is Regionalism in Electric Power Planning Old Fashioned?*, 45 *OR. L. REV.* 251 (1966).

8. See Getches, *Preface: On Natural Resources As An Area of the Law*, 53 *U. COLO. L. REV.* 195 (1982); Biblowit, *The Teaching of Natural Resources Law in Eastern Law Schools*, 6 *COLUM. J. ENVTL. L.* 139 (1980). For an earlier evaluation, see Tarlock, *Current Trends in the Development of an Environmental Curriculum*, in *LAW AND THE ENVIRONMENT* 297 (1970).

9. An excellent example of how past policies shape future programs is supplied by state and federal clean air legislation. See Huffman, *Book Review*, 9 *ENVTL. L.* 441 (1979) (reviewing J. KRIER & E. URSIN, *POLLUTION AND POLICY* (1977)).

studies of the timber¹⁰ and fishery resources,¹¹ no legal analysis of Northwest hydroelectric policies from an historical perspective exists.

This is regrettable because the foremost natural resources issues confronting the region in the 1980's will concern the generation and distribution of electricity, three-quarters of which is produced by streamflows.¹² Passage of the Pacific Northwest Electric Power Planning and Conservation Act at the decade's outset has precipitated at least as many new conflicts as it has resolved.¹³ Without an understanding of how and why the present hydroelectric system developed, some emerging issues are likely to be incorrectly characterized as novel, and the lessons of the past may go unheeded. This article aims to give today's decision makers an appreciation of yesterday's policy choices and their legacy by supplying an historical dimension to the Pacific Northwest's hydroelectric system.

Today's electric power system has six principal characteristics. First, unlike systems in most other regions of the country, the Pacific Northwest's system is primarily grounded on water power, although during the past decade most new generating facilities have been coal or nuclear power plants.¹⁴ Second, the costs of electricity have escalated rapidly in recent years, a direct result of the new higher cost thermal plants,¹⁵ some of which have been stillborn.¹⁶ Third, although the Pacific Northwest utility industry is remarkably diverse, the more than one hundred public and private utilities that serve the region are interconnected physically by a transmission grid and institutionally by the region's large-scale wholesaler of electricity, the federal Bonneville Power Administration.¹⁷ Fourth, while the federal role in the generation and distribution of electric

10. See Huffman, *A History of Forest Policy in the United States*, 8 ENVTL. L. 239 (1978).

11. See *supra* note 6.

12. See K. LEE, D. KLEMKA & M. MARTS, *ELECTRIC POWER AND THE FUTURE OF THE PACIFIC NORTHWEST* 6 (1980).

13. Pacific Northwest Electric Power Planning and Conservation Act, Pub. L. No. 96-501, 94 Stat. 2697 (1980) (codified at 16 U.S.C. §§ 839-839h (Supp. V 1981)). See H. Spigal, *Trends in Regional Power Act Litigation* (June 5, 1982) (paper presented at University of Washington, Continuing Legal Education Conference on the Pacific Northwest Electric Power Planning and Conservation Act) (copy on file with the *Washington Law Review*) (noting that 19 suits were filed in the first 18 months after the Act's passage).

14. See K. LEE, D. KLEMKA & M. MARTS, *supra* note 12, at 72.

15. See *id.* at 71.

16. For example, two of five nuclear power plants planned by the Washington Public Power Supply have been cancelled, another postponed, and the fate of a fourth remains uncertain. In fact, a recent evaluation of 18 planned thermal plants (nuclear and coal) found that only 2 plants were likely to be completed. See 1 NORTHWEST CONSERVATION ACT REPORT, No. 11, May 28, 1982, at 8.

17. See generally BONNEVILLE POWER ADMINISTRATION, *THE ROLE OF THE BONNEVILLE POWER ADMINISTRATION IN THE PACIFIC NORTHWEST POWER SUPPLY SYSTEM, INCLUDING ITS PARTICIPATION IN THE HYDRO-THERMAL POWER PROGRAM* (July 22, 1977) (Draft Environmental Impact Statement) [hereinafter cited as DEIS].

energy has been and continues to be significant,¹⁸ the key policy choices of the future will be made by the states, most notably through the interstate Pacific Northwest Electric Power Planning and Conservation Council.¹⁹ Fifth, the growth of the interconnected system has been influenced to a considerable extent by a desire to attract and maintain an aluminum reduction industry that is extremely electricity consumptive.²⁰ Sixth, the principal source of electricity is federal reservoirs designed for multiple purposes. Electric power policies thus have inevitable, though not always widely perceived, spillover effects on other water uses and resources, particularly the region's economically valuable anadromous fish runs.²¹

These system characteristics evolved over nearly half a century of regional electric power development, and some are inextricably related to national policies and politics. In fact, this article illustrates that a number of fundamental issues that have confronted every generation of hydroelectric policy makers first arose in the Progressive Era. If recent events have created strange bedfellows,²² these marriages are more understand-

18. In addition to the Bonneville Power Administration, the United States Army Corps of Engineers (federal project developer and operator), the Bureau of Reclamation (federal project developer and operator), and the Federal Energy Regulatory Commission (nonfederal project licensor and regulator) have important roles in the operation of the hydroelectric system. See Blumm, *Fulfilling the Parity Promise: A Perspective on Scientific Proof, Economic Cost, and Indian Treaty Rights in the Approval of the Columbia Basin Fish and Wildlife Program*, 13 ENVTL. L. 103, 152-56 (1982).

19. The Council was established under § 4 of the Pacific Northwest Electric Power Planning and Conservation Act, Pub. L. No. 96-501, 94 Stat. 2697 (1980) (codified at 16 U.S.C. §§ 839-839h (Supp. V 1981)).

20. "In fiscal 1978, the six aluminum manufacturers of the Northwest purchased nearly 24 billion kilowatt-hours of electric power, more than a third of the output of the Federal Columbia River Power System." K. LEE, D. KLEMKA & M. MARTS, *supra* note 12, at 5. On the other hand, Northwest aluminum plants employ only 12,000, about one-half of one percent of the region's nonagricultural work force. Even if all plants using aluminum are considered, total employment is only 123,000, about five percent of the region's nonagricultural work force. COLUMBIA RIVER POWER FOR THE PEOPLE: A HISTORY OF THE POLICIES OF THE BONNEVILLE POWER ADMINISTRATION 271-72 (1981) [hereinafter cited as BPA HISTORY].

21. One recent study estimates the economic cost of current hydropower operations on Columbia Basin anadromous fish runs to be over \$370 million annually; cumulative losses since 1960 to be \$6.5 billion; and future losses predicted at \$3.7 billion per decade unless system operations are altered. See *Economic Value of Salmon Losses Estimated*, NATURAL RESOURCES LAW INST., 18 ANADROMOUS FISH LAW MEMO, May 1982, at 9 (summarizing P. MEYER, FISH, ENERGY AND THE COLUMBIA RIVER: AN ECONOMIC PERSPECTIVE ON FISHERIES VALUES LOST AND AT RISK (1982) (paper produced for the Northwest Resource Information Center)).

22. One such strange alliance was between two investor-owned utilities and the City of Portland, which twice had unsuccessfully attempted to disenfranchise them, in a suit against Bonneville seeking access to lower cost federal hydropower. See K. LEE, D. KLEMKA & M. MARTS, *supra* note 12, at 14. In another alliance, the region's aluminum companies have recently joined former opponents, Forelaws on Board and the Coalition for Safe Power, in a suit against Oregon's Public Utility Commissioner and Portland General Electric. *Forelaws on Board v. Johnson*, No. 82-3257 (9th Cir. filed May 10, 1982). The plaintiffs claim that a recent rate order will impermissibly allow the utility to recover a portion of its \$132 million loss stemming from the now-defunct Pebble Springs Nuclear Project. McDonough, *Former Foes Join Forces in Rate Case*, *The Oregonian*, Jan. 5, 1983, at 9.

able with an historical perspective. Moreover, many issues that dominated the electric power agenda of previous generations recur repeatedly. This is perhaps best evidenced by the Ninth Circuit's recent interpretation of the effect of the forty-five year old public preference policy on Bonneville's new power sale contracts authorized by the Northwest Power and Conservation Act.²³ By tracing the roots of regional hydroelectric policy making, this article illuminates the forces that influenced the growth of the system in the past and those that will shape its future.

Part I of the article sets the stage by examining the national forces influencing electric power development in the pre-New Deal era. Part II focuses on the policies of the New Deal and their impact upon the birth of the Pacific Northwest hydroelectric system. Part III considers the developing system during World War II and the postwar years, while part IV evaluates the influence of the Eisenhower "partnership" years. Part V describes the forces that led to the creation of Bonneville's Hydro-Thermal Program in the late 1960's. Part VI assesses the demise of that program in the 1970's; this collapse became a catalyst for the coalitions that sought federal legislation to establish a new institutional framework to govern the region's electric power future. Part VII analyzes some of the major innovations of that legislation, the Pacific Northwest Electric Power Planning and Conservation Act, in light of the historical record. Finally, Part VIII concludes with some observations about what the lessons of the past may have to say about that Act's implementation.

I. THE PRE-NEW DEAL ERA

Long before becoming the driving force behind the economic growth of the Pacific Northwest, the federal role in water resources development was widely recognized as a key to the settlement of the nation's western frontier.²⁴ In fact, the motivation for the first national plan for river improvements and canals, developed by Treasury Secretary Albert Gallatin in 1808, was a desire to facilitate settlement of the vast territory acquired from France in the Louisiana Purchase.²⁵ When the Supreme Court set-

23. In *Central Lincoln Peoples' Util. Dist. v. Johnson*, 673 F.2d 1076 (9th Cir.), *amended*, 686 F.2d 708 (9th Cir. 1982), *cert. granted*, 51 U.S.L.W. 3699 (U.S. Mar. 25, 1983) (No. 82-1071), the court ruled that the contracts Bonneville offered to its direct service industrial customers (mostly aluminum companies) violated the public preference clause because they gave the industrial customers first priority in access to nonfirm power (i.e., power in excess of that which the system can assuredly produce).

24. See, e.g., F. SMITH, *THE POLITICS OF CONSERVATION* chs. 1-5 (1966).

25. B. HOLMES, *A HISTORY OF WATER RESOURCES PROGRAMS, 1800-1960*, at 3 (1972) (U.S. Dep't of Agric. Misc. Pub. No. 1233). The Gallatin Report argued for federal assistance for internal roads and canals because of a dearth of private capital. Its national plan included a system of canals along the Atlantic coast and roads to connect the coast with western rivers. F. SMITH, *supra* note 24.

tioned the issue of the federal government's constitutional authority over navigation in 1824,²⁶ the question of the federal role in developing canals and other water improvements became one of the great political controversies of the pre-Civil War era.²⁷ After the Civil War, Populist midwestern farmers advocated water developments to supply them with an alternative to high-cost railroad transportation,²⁸ an antimonopoly sentiment that would become a persistent theme when the Electric Age took shape at the turn of the twentieth century.

A. *The Progressive Era*

If the Pacific Northwest and electric power "grew up together,"²⁹ they were raised on a diet of reformist zeal that characterized the Progressive movement in American politics.³⁰ Progressives were heavily influenced by the overcrowding, poverty, and crime accompanying a seven-fold increase in the nation's urban population between 1860 and 1910.³¹ They

at 4. The report, revised by John C. Calhoun in 1819, was resisted by Madisonians who held a limited view of the federal government in internal improvements. B. HOLMES, *supra*, at 3.

26. In *Gibbons v. Ogden*, 22 U.S. (9 Wheat) 1 (1824), the Court voided a grant by the State of New York of a steamboat monopoly between New York and New Jersey because it conflicted with a federal licensing scheme. Chief Justice Marshall suggested that congressional power to regulate commerce extended to all activities with an interstate impact, however indirect. *Id.* at 69–70. This decision squarely placed navigation within the scope of the federal commerce power and rejected Madison's interpretation of a very limited role for the federal government in promoting internal improvements. See B. HOLMES, *supra* note 25, at 3. See also L. TRIBE, *AMERICAN CONSTITUTIONAL LAW* 321–22 (1978) (describing the Madisonian view of the Commerce Clause as one in which "Congress would be expected to do very little in the field of commercial regulation, and the states would be powerless to regulate interstate commerce even when Congress did nothing at all"). For a recent (albeit different) application of Madisonian principles to natural resources development, see Ball, *Good Old American Permits: Madisonian Federalism on the Territorial Sea and Continental Shelf*, 12 ENVTL. L. 623, 629 (1982) (concept of shared powers as a paradigm for outer continental shelf leasing).

27. See, e.g., R. HOFSTADTER, *THE AGE OF REFORM* 38–40 (1955) (noting the important role of internal transportation improvements in helping to transform the character of American agriculture between 1815 and 1860 from a collection of independent yeomen to a coalition of commercial entrepreneurs); 2 S. MORISON, *THE OXFORD HISTORY OF THE AMERICAN PEOPLE* 223–26 (1965) (explaining the importance of water transportation for shipping midwestern grain to eastern markets, and observing that in 1825 the governor of Georgia complained that wheat from central New York was sold more cheaply in Savannah than wheat from central Georgia); BPA HISTORY, *supra* note 20, at 13–14 (describing the anti-public-works platforms of the Democratic Party in the pre-Civil War Era).

28. These sentiments were embodied in an 1874 update of the 1808 Gallatin Report by the Win- dom Select Committee. Richard Hofstadter, however, downplayed the role of railroad rates in the difficulties faced by the late nineteenth century farmer. R. HOFSTADTER, *supra* note 27, at 58; see also S. HAYS, *CONSERVATION AND THE GOSPEL OF EFFICIENCY: THE PROGRESSIVE CONSERVATION MOVEMENT, 1890–1920*, at 92 (1959) (noting a general decline in railroad rates from the Civil War until 1898).

29. BPA HISTORY, *supra* note 20, at 12.

30. See generally R. HOFSTADTER, *supra* note 27.

31. *Id.* at 174.

found in government-sponsored natural resources conservation programs, particularly water projects,³² a means to preserve the rural, small town, individualistic life that post-Civil War industrialism threatened with big corporations, big cities, and big political machines.³³

Although the moral principles of Progressive conservationists lay in a simpler America and its agrarian past, the means by which they sought to reach these ends involved harnessing new forces in American life—science, technology, and industrial management—to achieve efficient resource use.³⁴ This efficiency paradigm led Progressives to embrace panels of nonpolitical experts to make decisions aimed at maximizing all water uses according to a scientific plan.³⁵ Borrowing organizational techniques from the corporate world and the disinterestedness of applied science, the Progressives hoped to eliminate the waste and inefficiencies they believed inherent in decentralized, parochial decisions made by congressional “log rolling.”³⁶ Thus, while Progressives viewed conservation programs as a vehicle to preserve the individualism of rural, small-town America, their conservation program adopted many of the techniques of the very forces of change they were designed to combat.³⁷

32. The Progressives' emphasis on water development is reflected in their definition of “conservation”: construction of reservoirs to conserve water for use during dry seasons. S. HAYS, *supra* note 28, at 5.

33. B. HOLMES, *supra* note 25, at 10:

These people [middleclass urban reformers and upperclass eastern urbanites whose interest in conservation and the West grew out of an enthusiasm for outdoor life] viewed with alarm the way in which post-Civil War industrialism had changed the American landscape and American society. They were worried about the organization of industry into combinations, and of labor into unions, because they felt that both threatened the independent, self-made man. They believed that city life had transformed politics from the intelligent democratic process of the early days of the Republic to a crude power struggle, dominated by privileged wealth and the corrupt political machines which controlled the votes of slum dwellers. Thus, programs involving both conservation of natural resources and the promotion of farm communities and small towns had a strong appeal for them.

See also R. HOFSTADTER, *supra* note 27, at 131–73 (attributing the Progressive impulse to a status revolution that caused old community pillars, including the clergy and the legal profession, to lose power and influence to a new economic elite).

34. S. HAYS, *supra* note 28, at 265–71 (describing the reliance on efficiency, organization, and scientific technicians to achieve agrarian ideals as seeking Jeffersonian ends through Hamiltonian means).

35. J. PENICK, PROGRESSIVE POLITICS AND CONSERVATION: THE BALLINGER-PINCHOT AFFAIR 16–17 (1968) (concept of efficiency molded on corporate organization and disinterested professionalism).

36. *Id.* at 11 (describing Theodore Roosevelt's belief that the running of the government should be divorced from politics and proceed according to sound business principles); *id.* at 188 (Progressive assumption that science, sound business principles, and specialists, not politics and interest group pressure, should determine natural resources development); see also S. HAYS, *supra* note 28, at 2–3 (technicians, not politicians, were to achieve resource efficiency).

37. J. PENICK, *supra* note 35, at 12–13 (admiration for efficiency and fear of declining opportunity both central tenets of Progressive conservationists); see also S. HAYS, *supra* note 28, at 265–66

The basic tenets of Progressive water policies exemplified this attempt to preserve the equities of an older America by employing the efficiencies of corporate management and sound business principles. The equity side of Progressive thought manifested itself in assertions that streamflows were part of the public domain and that their benefits should be widely shared, not controlled by narrow monopoly interests.³⁸ The efficiency side is reflected in the belief that multiple uses of streamflows should be maximized through scientific, river basin-wide planning.³⁹ In pursuit of both their equity and efficiency goals, Progressive conservationists charted an active role for the federal government as planner, regulator, and even developer of water projects.⁴⁰

The notion of the public nature of streamflows became a means to forestall growing monopolization of the emerging electric power industry, with its attendant high rates and poor customer service.⁴¹ Theodore Roosevelt, whose 1901 call for a federal program of water projects prompted passage of the first Reclamation Act a year later,⁴² vetoed legislation au-

(noting shared views of conservationists and corporations regarding the need for large-scale organization, technology, and planning to eliminate uncertainties and waste of resources).

38. Progressives believed that waterways benefits were socially created and therefore should be equitably shared. See Bates, *Fulfilling American Democracy: The Conservation Movement, 1907-1921*, 54 MISSISSIPPI VALLEY HIST. REV. 29, 30-31 (1957). This notion that publicly created components of the value of property should remain in the public domain led Judge Brietel of the New York Court of Appeals to conclude that value attributable to "the social complex" was not compensable in a suit alleging that New York City's historic landmarks law unconstitutionally restricted development rights. *Penn Cent. Transp. Co. v. City of New York*, 42 N.Y.2d 324, 366 N.E.2d 1271, 397 N.Y.S.2d 914 (1977), *aff'd*, 438 U.S. 104 (1978). The Supreme Court, however, expressly reserved judgment on this issue. 438 U.S. at 121 n.23.

39. The best publicized Progressive conservationist, Gifford Pinchot, stated that "every river is a unit from its source to its mouth." *Quoted in Bates, supra* note 38, at 31. This basin-wide perspective made local control appear inadequate. The emphasis on scientific planning led to a reliance on strong leadership from the Executive. *Id.* at 42. For brief summaries of Progressive water conservation policies, see B. HOLMES, *supra* note 25, at 6; BPA HISTORY, *supra* note 20, at 13.

40. Justification for a large federal role included: (1) experience with irrigation projects indicated that state and private financing was insufficient to fund large-scale projects; (2) the interstate character of streams inhibited local development, particularly where, as in flood control, the principal beneficiaries were far downstream; and (3) only the federal government, which controlled public lands and navigable streams, could prevent land speculators from inhibiting comprehensive stream development. S. HAYS, *supra* note 28, at 101-02.

41. See BPA HISTORY, *supra* note 20, at 12; see also *infra* note 44. Concern over the effects of water power monopolies was not a Progressive innovation. A preceding generation of jurists had transformed American water law from traditional natural flow principles to the reasonable use theory largely to prevent easy acquisition of prescriptive rights to streamflows by the first mill owner on the stream. M. HOROWITZ, *THE TRANSFORMATION OF AMERICAN LAW, 1780-1840*, at 42-47 (1977). The same antimonopoly sentiment that fueled the Progressive antitrust movement was evident in the early 19th century controversy over general incorporation statutes. L. FRIEDMAN, *A HISTORY OF AMERICAN LAW* 171, 405 (1973).

42. Reclamation Act, Pub. L. No. 57-161, 36 Stat. 388 (1902) (codified in scattered sections of 43 U.S.C.). The Reclamation Act, often referred to as the Newlands Act after its chief sponsor, Senator Newlands of Nevada, contained a number of innovative provisions. First, reclamation proj-

thorizing private hydroelectric developments that did not specify limited license terms and payment of annual charges.⁴³ This monopolization fear, which also manifested itself in Progressive "trust busting" and rate regulation reforms, was particularly acute in the electric power field, where by 1912 ten holding companies accumulated control of sixty percent of the nation's commercial water power.⁴⁴

Not content simply to block water projects that did not promise sufficient public returns, Roosevelt appointed a commission to survey prospective waterway improvements and to recommend a suitable role for the federal government. In 1908, the Inland Waterways Commission⁴⁵

ects were to be self-financed through use of a Reclamation Fund to which project beneficiaries were to repay estimated construction costs in annual interest-free installments. Second, the Reclamation Service was given an unprecedented delegation of authority to initiate project planning without congressional approval, an attempt to replace "log rolling" with administrative expertise. Third, reclamation irrigation was, in theory, to be limited to owner-occupied tracts of 160 acres or less, another manifestation of Progressive antimonopoly sentiment. S. HAYS, *supra* note 28, at 12-14; B. HOLMES, *supra* note 25, at 8. In practice, of course, the acreage limitation was riddled with loopholes, exceptions, and lack of federal enforcement. See, e.g., F. TRELEASE, *supra* note 1, at 740-44; G. COGGINS & C. WILKINSON, *supra* note 1, at 106-18. On October 12, 1982, President Reagan signed into law significant amendments to the Reclamation Act that increase the acreage limitations to 960 acres and eliminate interest-free repayments. Pub. L. No. 97-293, 96 Stat. 1263 (1982) (codified in scattered sections of 43 U.S.C. and 26 U.S.C.).

43. BPA HISTORY, *supra* note 20, at 17, 21-22. Roosevelt vetoed proposed private development at Muscle Shoals on the Tennessee River in 1903 because it failed to provide for sufficient return to the public from power revenues. After signing 25 water development bills, the President issued two other vetoes on the same grounds in 1907 and 1908. The latter vetoes involved a disagreement between Roosevelt, who believed that the 1906 Dam Act authorized the Corps of Engineers to attach conditions aimed at securing a financial return to the government from a share of power revenues, and the Corps and its congressional allies, who believed that the Corps' authority over private projects extended only to conditions related to navigation. S. HAYS, *supra* note 28, at 114-17. Limited-term permits and annual fees were first required in 1905 for water projects on national forest land by the Forest Service, under the leadership of Progressive Gifford Pinchot. B. HOLMES, *supra* note 22, at 7.

44. BPA HISTORY, *supra* note 24, at 23 (relying on figures from the U.S. Bureau of Corporations). This represented a significant increase in consolidation; in 1909, the Bureau of Corporations reported that one-third of the nation's commercial water power was controlled by 13 groups. *Id.* at 22. The Progressive antipathy to water power monopolies is illustrated by Robert La Follette's assertion that, beginning in 1903, he secured in every water power franchise licensed by the State of Wisconsin a provision that rates would be regulated through arbitration and profits limited to six percent. R. LA FOLLETTE, AUTOBIOGRAPHY 155 (1913).

45. The Inland Waterways Commission (IWC) should be viewed as the successor to earlier national water resources planning efforts in 1808, 1819, and 1874. See *supra* notes 24-25 and accompanying text and note 28. The IWC was the brainchild of W. J. McGee, former head of the Bureau of Ethnology. McGee linked inland waterways users, who were frustrated at their inability to obtain congressional approval for particular projects, with the Roosevelt Administration, which wanted executive control over future water developments. S. HAYS, *supra* note 28, at 102-05. The congressional stumbling block was Theodore Burton, Chairman of the House Rivers and Harbors Committee, who believed that inland waterway development was uneconomical and denied that waterway competition would have any effect on rising railroad freight rates. *Id.* at 93-94. Midwestern waterway proponents particularly welcomed the IWC, which they viewed as a potential vehicle to obtain approval for a deep waterway from the Great Lakes to the Gulf of Mexico. *Id.* at 95-105. Conservationists in the Administration, like Frederick Newell, Gifford Pinchot, and Interior Secretary James Gar-

reported to the President, declaring water to be a public resource and recommending basin-wide federal water planning to serve multiple purposes, including navigation, flood control, water power, irrigation, and pollution control.⁴⁶ Over the dissent of the Army Corps of Engineers,⁴⁷ the Commission also recommended that a central, national water planning agency be established to coordinate the activities of the Corps, the Bureau of Reclamation, and other federal agencies.⁴⁸

Centralized, national water planning not only fit with the Progressive notion of maximizing efficiency, it was also an attempt to reduce the influence of congressional "log rolling," by which individual legislators exercised a disproportionate influence in securing congressional approval of uneconomic, parochial projects.⁴⁹ These Progressive reforms, how-

field, viewed the IWC as a means to promote multiple-use projects and river-basin planning. *Id.* at 100-02.

46. BPA HISTORY, *supra* note 20, at 21-22; B. HOLMES, *supra* note 25, at 6. The report also recommended coordinating waterway traffic with railroad traffic and equitably allocating national and local costs and benefits. B. HOLMES, *supra* note 25, at 6. Adopting a suggestion of Marshall Leighton, Chief Hydrographer of the Geological Survey, the Commission recommended that government sales of hydropower be used to finance multipurpose projects. S. HAYS, *supra* note 28, at 107-08. Theodore Roosevelt, who felt that Congress could not resist the political pressure to pursue many unrelated projects at the same time, believed that centralized planning could maximize effective use of limited funds. S. HAYS, *supra* note 28, at 110-11.

47. The Corps' relationship with Progressive conservationists was an uneasy one. Where the conservationists wanted nonpolitical panels of experts to make water development decisions based on a paradigm of multiple use and coordinated river-basin development, the Corps was wedded to single-use projects. S. HAYS, *supra* note 28, at 108. First given responsibility to improve waterways for navigation in 1824, B. HOLMES, *supra* note 25, at 3-4, the Corps was extremely slow to recognize nontransportation uses of waterway improvements. See S. HAYS, *supra* note 28, at 109. In fact, beginning in the 1850's, the Corps denied that reservoirs could effectively control floods, preferring to rely on a system of levees for flood control. See generally A. MORGAN, DAMS AND OTHER DISASTERS: A CENTURY OF ARMY CORPS OF ENGINEERS IN CIVIL WORKS 252-302 (1971) (describing the Corps' resistance to reservoir development as a means of flood control). The Corps also disputed the Progressive notion that forests could retard runoff and therefore were an important element in controlling floods.

But while differences in hydrological theory seemed to be the basis of the Corps-Progressive split, the Corps was wary of progressive innovations chiefly because it feared losing its preeminent role in water development to other agencies. See S. HAYS, *supra* note 28, at 107-12, 200-05. A centralized water planning agency, such as that proposed by the IWC, was viewed by the Corps as a direct threat to its autonomy. In its efforts to resist the IWC recommendations, the Corps found congressional allies who feared that a central committee of nonpolitical, scientific experts would upset local political arrangements. See *infra* note 49. That the Corps' hostility to multiple-purpose planning was primarily grounded on political, not hydrological, philosophy is evidenced by the fact that in 1913 it supported a comprehensive investigation of water problems so long as the Corps, not an independent commission, was assigned this responsibility. S. HAYS, *supra* note 28, at 214-15.

48. See B. HOLMES, *supra* note 25, at 6.

49. Conflicts between congressional and executive power over water resources predated the Progressive Era. The Corps of Engineers' self-conception as a mere technical advisor to Congress on water projects limited its planning function, as an 1882 veto by President Arthur of allegedly "pork barrel" projects illustrates. Two years later, Congress attempted to avoid future vetoes by requiring that Corps surveys be preceded by a preliminary determination by the local district engineer that the

ever, were stymied by shifting political sentiment and world developments. Bills implementing the Inland Waterways Commission recommendations were blocked by congressional opponents,⁵⁰ and the Taft Administration did not share its predecessor's enthusiasm for central planning.⁵¹ As a result, creation of a central water planning agency was delayed until 1917,⁵² when legislation establishing a Waterways Commission was enacted.⁵³ However, preoccupation with the war in Europe and a dispute over the composition of the Commission membership pre-

river or harbor was "worthy of improvement." In 1902, Congress established a national-level Board of Engineers for Rivers and Harbors to weed out uneconomic projects resulting from congressional "log rolling." B. HOLMES, *supra* note 25, at 3-4, 8. That same year the Reclamation Service was given the unprecedented authority to plan projects without congressional approval. *See supra* note 42. The Roosevelt vetoes, *see supra* text accompanying note 43, the Pinchot permit innovations, *see supra* note 43, and the Inland Waterways Commission recommendations, *see supra* text accompanying notes 46-48, all were influenced heavily by a desire to remove authority from a parochial Congress to an Executive with a broader, technical perspective that would develop long-range plans to maximize efficiency through the multiple-use concept. On the other hand, congressional opponents felt that the increased efficiency achieved by greater executive control was not worth the loss of local influence over particular projects that would accompany centralized, expert planning. *See S. HAYS, supra* note 28, at 271-76.

50. The sponsor of the implementing legislation was Senator Newlands, who felt that the success of the 1902 Reclamation Act he championed was dependent on the ability of commissioners to select projects independent of the congressional appropriation process. He believed that these independent commissions should be free to spend money "just as a board of directors of a great constructive corporation would do," 42 CONG. REC. 391 (1907), another indication of the Progressive ambivalence toward bigness. *See supra* text following note 33. Congressional opponents of central planning, headed by Theodore Burton, succeeded in delaying serious consideration of the Newlands bill by establishing a Congress-dominated commission to restudy water development. Authorized by the 1909 Rivers and Harbors Act, this commission's 1912 report chartered a more conservative course than the IWC, generally reflecting Burton's views, *see supra* note 45, including the belief that railroad rates should be lowered by regulation, not by funding waterway developments. S. HAYS, *supra* note 28, at 220.

51. Taft, who was department head of the Corps as Roosevelt's Secretary of War, shared the Corps' antipathy toward the IWC's central planning recommendations. S. HAYS, *supra* note 28, at 108-10, 119.

52. James Penick argues that frustration over the inability to implement the IWC recommendations led conservationists like Gifford Pinchot to link the conservation movement with the antitrust crusade in order to marshal broad-based public support for policies that until 1908 had been a concern only to technical administrators and a few economic interests. Thus, the antimonopoly, special interest rhetoric characteristic of the "conservation crusade" of 1908-09, which precipitated the battle between Pinchot and Taft's Secretary of the Interior, Richard Ballinger, and ultimately contributed greatly to the Bull Moose campaign of 1912, was in large measure part of a conflict between advocates of centralized planning and departmental autonomy. *See J. PENICK, supra* note 35, at 1-18, 181-96.

53. Act of Aug. 8, 1917, ch. 49, 40 Stat. 250, 269 (1917). *See B. HOLMES, supra* note 25, at 7. Senator Newlands finally succeeded in his attempts to establish the Waterways Commission by threatening to block flood control legislation supported by Mississippi Valley Senators. The compromise resulted in section 18 of the 1917 Flood Control Act, which authorized the Commission. S. HAYS, *supra* note 28, at 238.

vented any appointments.⁵⁴ When Congress culminated a fifteen-year Progressive struggle to establish a uniform licensing scheme for non-federal water project development⁵⁵ by passing the Federal Water Project Act in 1920,⁵⁶ opponents of federal development succeeded in including in that legislation a provision that terminated the Waterways Commission without transferring its functions to the new Federal Power Commission.⁵⁷

In effect, the 1920 Act substituted federal regulation of nonfederal developments for the centralized water planning advocated by the Progressives. It also rejected conservationist philosophy by providing only relatively low federal charges and failing to earmark those revenues for federal multiple-purpose projects.⁵⁸ Nevertheless, a number of Progressive notions embodied in the Act became enduring principles of national water policy, including a preference for publicly sponsored development, limited-term licenses that reserved ultimate ownership in the public domain, and license criteria which, while not expressly incorporating the multiple-use concept, were at least amenable to it.⁵⁹

54. Senator Newlands wanted the commissioners to be cabinet members, while the Corps and its congressional allies wanted noncabinet officials who would be more responsive to Congress. S. HAYS, *supra* note 28, at 208, 238–39.

55. Since passage of the 1906 General Dam Act, nonfederal projects required Corps of Engineers' approval, seemingly on the basis of multiple-use criteria. B. HOLMES, *supra* note 25, at 7. However, the Corps of Engineers adopted a narrow view of its authority under this legislation, believing it was limited to navigation-related regulations, a view sustained by Taft's Attorney General, George Wickersham. Although Wickersham's decision prompted enactment of new legislation in 1910, 36 Stat. 593, June 23, 1910, the Corps refused to interpret its authority to include imposing federal charges on private water power projects, a Forest Service policy since 1905 (*see supra* note 43). S. HAYS, *supra* note 28, at 161–65.

Since Federal water power charges were viewed by conservationists like Pinchot as the key to finance multiple-purpose developments, the Corps' reticence should be viewed as part of its struggle to maintain its preeminent role in water development that included opposition to the multiple-use concept. *See supra* notes 47 & 49. This attitude on the part of the Corps, of course, was welcomed by utilities that did not want to pay such charges. Utilities also fought against comprehensive water power licensing, arguing that it would intrude upon states' rights. BPA HISTORY, *supra* note 20, at 22. This concern with states' rights was short-lived; a quarter century later, utilities would successfully convince the Supreme Court that the Federal Power Act preempted state water project licensing schemes. *First Iowa Hydro-Electric Cooperative v. Federal Power Comm'n*, 328 U.S. 152 (1946). I have questioned the continuing vitality of this decision, at least to the extent that it precludes states from affecting project operations. *See Blumm, supra* note 6, at 291–93. *But see* 40 Op. Att'y. Gen. 2, 5 (Or. 1979) (Oregon facility siting certifications for hydroelectric facilities preempted by Federal Power Act).

56. 16 U.S.C. §§ 791–823 (1976 & Supp. V 1981).

57. B. HOLMES, *supra* note 25, at 7. Senator Newlands' death in 1919 contributed greatly to the termination of the Commission. S. HAYS, *supra* note 28, at 239.

58. S. HAYS, *supra* note 28, at 239–40.

59. Federal Power Act, 16 U.S.C. § 800(a) (1976) (public preference); 16 U.S.C. § 799 (1976) (maximum of 50-year license terms); 16 U.S.C. § 803(a) (1976) (best adapted to comprehensive plans). Under § 800(b) of the Act, the Federal Power Commission was directed to deny licenses to

B. *The Twenties*

The Republican ascendancy in the 1920 election considerably altered the federal role in water resources development. The Republicans rejected Progressive antimonopoly and income distribution concerns as undermining prosperity. They also objected to federal competition with private enterprise in hydroelectric development.⁶⁰ Consequently, in the decade following the war, private power interests predominated. Multiple-purpose, federal water planning made significant strides, however, and the first multiple-purpose federal project was authorized in 1928.⁶¹ Thus, while the 1920's contained little of the Progressive zeal that linked water development with democratic reform, the Republican years initiated planning of many projects that the New Deal would later pursue.⁶²

A major reason for the dominance of private power was the Federal Power Commission (FPC), created by the 1920 Federal Water Power Act.⁶³ Although the FPC possessed broad regulatory powers, it was supplied with little staff and funding and thus functioned largely as a clearinghouse, ensuring against duplication of project applications.⁶⁴ With

projects when it believed that federal development was more appropriate. This provision, along with the requirement that projects be best adapted to comprehensive plans, enabled the Supreme Court to overturn a license granted to the Pacific Northwest Power Company to construct the High Mountain Sheep Dam on the Snake River in *Udall v. Federal Power Comm'n*, 387 U.S. 428 (1967).

Samuel Hays argues that the Federal Power Act represented a rejection of the multiple-use ideal of Pinchot and Roosevelt because it authorized nonfederal power projects without attempting to maximize other uses such as flood control and irrigation. S. HAYS, *supra* note 28, at 240. Section 803(a), however, at least presaged the comprehensive planning that the Corps was to undertake later in the 1920's. Moreover, I question whether Progressive rhetoric concerning "multiple use" can be equated with the extensive federal water developments that characterized New Deal water policy. Most Progressives held a much more limited view of the role of government, and the Federal Power Act at least held out the possibility of achieving comprehensive waterway development through federal regulation. For an overview of the differences between Progressive and New Deal philosophy, see R. HOFSTADTER, *supra* note 27, at 310-15 (alleging that, unlike the Progressives, who sought to reestablish competition by attacking bigness, New Dealers stressed the need for government organization to protect consumers against monopolistic practices).

60. B. HOLMES, *supra* note 25, at 10.

61. Boulder Canyon Project Act, Pub. L. No. 70-642, 45 Stat. 1057 (1928) (codified as amended at 43 U.S.C. § 617-617t (1976 & Supp. II 1979)).

62. Donald Swain argues that during the 1920's the conservation movement, previously dominated by water storage projects and soil and timber management, broadened its agenda to include wildlife conservation and aesthetic concerns. D. SWAIN, *FEDERAL CONSERVATION POLICY, 1921-1933*, at 6-7 (1963). Two landmark Supreme Court decisions helped to support this broadened agenda: *Missouri v. Holland*, 252 U.S. 416 (1920) (upholding the constitutionality of federal regulation of wildlife under the Migratory Treaty Act); and *Euclid v. Ambler Realty Co.*, 272 U.S. 365 (1926) (upholding the constitutionality of municipal zoning).

63. Pub. L. No. 66-280, 41 Stat. 1063 (1920) (codified at 16 U.S.C. §§ 791-823 (1976 & Supp. V 1981)).

64. D. SWAIN, *supra* note 62, at 113-14. The Federal Power Act (1) gave the FPC jurisdiction over all water power sites on navigable streams; (2) limited private licenses to 50-year terms; (3) authorized rate regulation and uniform cost accounting; (4) enabled the agency to limit excessive

few regulatory requirements and nominal fees, private water power boomed.⁶⁵

Although federal development was overshadowed by private projects, the principal federal development agencies—the Corps of Engineers and the Bureau of Reclamation—became advocates of multiple-purpose planning. The Corps, which staunchly resisted the Progressives' call for comprehensive basin-wide planning,⁶⁶ became a convert in 1927 when Congress authorized the Corps to undertake multiple-use plans.⁶⁷ The Bureau, which initiated construction of the first federal multiple-purpose project when the Boulder Canyon project was authorized in 1928,⁶⁸ saw hydropower sales as a means to finance its irrigation projects.⁶⁹ In the late

profits by imposing fees; and (5) required that the developments be consistent with comprehensive plans. Pub. L. No. 66-280, §§ 4, 6, 10, 41 Stat. 1063 (1920). See *supra* note 59. Part of the reason for the FPC's ineffectiveness was that its commissioners—the Secretaries of Agriculture, Interior, and War—had other, more pressing responsibilities. In 1930, Congress reorganized the Commission into a five-member, independent, bipartisan commission after an investigation revealed its ineffectiveness and its virtual capture by private power interests. See *Investigation of Federal Regulation of Power: Hearings before the Senate Comm. on Interstate Commerce*, 71st Cong., 2d Sess. 3–65 (1930); D. SWAIN, *supra* note 62, at 113–15.

65. “By 1931 FPC licensees had developed about 6 percent of the total electrical generating capacity of the United States and were producing about 24 percent of all American hydroelectric power.” D. SWAIN, *supra* note 62, at 115.

66. See *supra* note 47. The Corps' traditional navigation responsibilities were broadened to include flood control in the 1917 Flood Control Act, Pub. L. No. 64-367, § 1, 39 Stat. 948 (1917) (codified as amended at 33 U.S.C. §§ 643, 701–703 (1976 & Supp. V 1981)), but the Corps' flood control policy was to rely exclusively on levees, not reservoirs. D. SWAIN, *supra* note 62, at 105.

67. Rivers and Harbors Act, Pub. L. No. 69-560, 44 Stat. 1010 (1927). This Act authorized the Corps to pursue surveys of river basins that were identified in a joint Corps/Federal Power Commission study authorized two years before and printed in House Document 308. B. HOLMES, *supra* note 25, at 11; Blumm, *supra* note 6, at 224–25. The general investigatory nature of these surveys (referred to as “308 Reports”) equipped the Corps with the discretion to initiate project planning similar to that enjoyed by the Reclamation Service (now Bureau of Reclamation) since 1902. See *supra* note 42. Although it took more than twenty years for the Corps to complete these “308 Reports,” they provided the basis of most of the water project development of the New Deal and postwar eras. B. HOLMES, *supra* note 25, at 12. This is particularly true in the Columbia Basin. See Blumm, *supra* note 6, at 225–43.

68. Boulder Canyon Project Act, Pub. L. No. 70-642, 45 Stat. 1057 (1928) (codified as amended at 43 U.S.C. §§ 617–617t (1976 & Supp. II 1979)). The Act was prompted by a 1922 Reclamation Service report on Imperial Valley flooding. With the ratification of the 1922 Colorado River Treaty, river flows were allocated between upper and lower basin states, resulting in constant congressional pressure to dam the Colorado to provide flood control for the Valley and a municipal water supply for burgeoning Los Angeles. Southern California Edison blocked the project for a time because it feared public power competition, but when Senator Hiram Johnson softened the legislation's public power provisions, President Hoover approved the project that would later bear his name. D. SWAIN, *supra* note 62, at 89–91.

69. Financing problems plagued the Reclamation Fund, which under the 1902 Reclamation Act was to be repaid construction costs by project beneficiaries in 10 years. Pub. L. No. 57-161, § 4, 32 Stat. 388 (1902) (codified as amended in scattered sections of 43 U.S.C.). In 1914, Congress extended the repayment period to 20 years, Reclamation Act of 1914, Pub. L. No. 63-170, § 1, 38 Stat. 686 (1914) (codified as amended in scattered sections of 43 U.S.C.), and in the 1920's passed a

1920's, both agencies studied the feasibility of developing the Columbia Basin, and the Bureau's Grand Coulee project was nearly approved by President Hoover.⁷⁰ The Republican attachment to private power was strong enough, however, to prevent federal construction until the New Deal.

The most celebrated conflict between federal and private power development in the 1920's occurred on the Tennessee River. During the war, Congress authorized construction of a dam to supply power for a government explosives plant at Muscle Shoals, a thirty-seven mile stretch of the Tennessee River that dropped thirty-four feet.⁷¹ For more than a decade, Muscle Shoals development was in the spotlight of a public versus private power development debate, as Presidents Coolidge and Hoover vetoed bills authorizing federal development, and Progressive Senator George Norris blocked attempts to sanction private developments.⁷² This stalemate persisted until the New Deal made federal development of the Tennessee Valley the centerpiece of its water resources policy.

The Muscle Shoals fight was fueled by a flurry of utility mergers. In 1926 alone, there were more than 1000 mergers, most of which involved sales of public utilities to private companies the stock of which was con-

number of leniency acts to further delay repayment. D. SWAIN, *supra* note 62, at 79. With the Reclamation Fund insufficient to support new projects, the Bureau was interested in other means of financing. It should be noted that this legislation also removed the Bureau's authority to construct projects without congressional approval, a stunning defeat for advocates of scientific planning and a victory for local interests who disliked the bureaucrats' autonomy. Pub. L. No. 63-170, § 16, 38 Stat. 686; D. SWAIN, *supra* note 62, at 76-78.

70. The idea of a high dam at Grand Coulee to irrigate the Columbia Basin's Inland Empire had been seriously discussed since the end of the war. A plan to irrigate the eastern Washington and Oregon deserts was endorsed by the 1920 Democratic platform. However, as in the case of the Boulder Canyon Act, private power interests opposed construction of a project that was to be financed out of federal power sales. Instead, they backed construction of an irrigation canal between the Pend Oreille River and the desert. In the mid-1920's, the Bureau felt the project was too expensive and complex to pursue. However, when the Corps' "308 Report" on the Columbia River included the Coulee Dam among the nine projects it recommended for construction, the Bureau had a change of heart. By 1930, both the Bureau and the Corps advocated the project. When the Corps decided to emphasize development of the lower river in 1932, the project became the Bureau's. President Hoover (who lent his support to the project as Secretary of Commerce in 1926) withheld approval of the dam, however, favoring the Pend Oreille canal. *Id.* at 91-93.

71. National Defense Act, Pub. L. No. 64-85, § 124, 39 Stat. 166 (1916) (repealed 1956). BPA HISTORY, *supra* note 20, at 24-25. Private development of Muscle Shoals was the object of a Theodore Roosevelt veto in 1903. D. SWAIN, *supra* note 62, at 116.

72. The highest private bid for the Muscle Shoals development was made by Henry Ford, who, in addition to selling power, wanted to convert the explosives plant into a fertilizer plant. Ford never offered to pay more than a small proportion of the federal government's sunk costs and wanted a 100-year lease during which the plant would be exempt from Federal Power Commission regulation. B. HOLMES, *supra* note 25, at 10. Senator Norris explained his opposition to Ford's plan in an article in *The Nation* in 1923. See AMERICA'S ENERGY 56-57 (R. Engler ed. 1980).

trolled by large holding companies.⁷³ Coupled with ineffective FPC regulation, this increased industry concentration resulted in increased electric rates and charges of excessive profits. Dissatisfaction with ineffective utility regulation prompted a Federal Trade Commission investigation of holding companies in 1928,⁷⁴ and led Senator Norris to advocate federal power to serve as a “yardstick” for measuring rates.⁷⁵ The 1920's, however, were important not simply for shaping the New Deal reaction to the excesses resulting from the marriage between private power and the Republican party,⁷⁶ but also for formulating many of the multiple-use water plans that became blueprints for New Deal projects.⁷⁷

II. THE NEW DEAL

The philosophical underpinnings of Pacific Northwest hydropower development are found in the Progressive impulse, but the economic realities of the Great Depression transformed that philosophy into action.⁷⁸ The New Deal belief that the federal government could stimulate economic recovery through public works projects was soon translated into water project construction, for which the Corps' “308 plans” provided handy blueprints. However, dam building was not simply a means of unemployment relief; it was fundamentally related to the notion that inadequate regulation of private utilities led to inequities in the distribution of electric power. New Dealers sought cheaper and wider distribution of electric power both through federal regulation of private power and federal promotion of public power. The latter, of course, was one of the motivations for the establishment of the Bonneville Power Administration. Federal regulation, however, particularly in its Brandeisian concern for controlling holding company monopolies,⁷⁹ ultimately made possible

73. B. HOLMES, *supra* note 25, at 10–11.

74. The investigation was induced by a Senate resolution sponsored by Senator Thomas Walsh, who was incensed by a 1927 Federal Trade Commission report of electric power monopolization that he termed a “whitewash.” See *infra* note 83. The ensuing investigation lasted six years and laid the foundation for the Public Utility Holding Company Act of 1935. BPA HISTORY, *supra* note 20, at 23–24. See Public Utility Holding Company Act, 15 U.S.C. 79–79z-6 (1976 & Supp. V 1981).

75. D. SWAIN, *supra* note 62, at 119.

76. The strength of the power companies was deplored in a pair of articles appearing in *The Nation* in 1928 and 1929. See AMERICA'S ENERGY, *supra* note 72, at 59–65.

77. Plans were initiated during the Hoover Administration that eventually led to projects on the Mississippi River, the Great Lakes, the Saint Lawrence Seaway, and in the Columbia Basin. B. HOLMES, *supra* note 25, at 10.

78. The employment crisis that ushered in the New Deal made unprecedented presidential public works powers politically possible, although, like the Progressives, New Dealers wanted water projects constructed according to comprehensive, basin-wide plans to eliminate “pork barrel” projects. B. HOLMES, *supra* note 25, at 13.

79. Supreme Court Justice Louis Brandeis, who two decades before had argued for the atomiza-

the reconciliation of public and private power that occurred in the Pacific Northwest during and after the Second World War.

A. *Regulation of Holding Companies*

During the 1920's, electric energy consumption more than doubled.⁸⁰ The utility mergers that characterized the postwar years were, in part, an effort to increase service capability while holding down construction of plants necessary to provide reserve generating capacity.⁸¹ However, while interconnection produced greater efficiency, it also resulted in considerable centralization of authority in the form of large holding companies. As noted above,⁸² the dangers posed by this "power trust" led Congress to order a Federal Trade Commission investigation during the late 1920's.⁸³

When the New Deal seized the reins of government in 1933, it was clear that the law had not kept up with the technological innovations and growth of private power. Although private utilities were regulated by

tion of large economic interests in his 1913 polemic, *Other People's Money and How the Bankers Use It*, had an important influence on much New Deal legislation. He sought federal control over holding companies because he believed that concentrated economic power undermined economic competition, resulting in inefficiency and political corruption. P. FUNIGIELLO, *TOWARD A NATIONAL POWER POLICY: THE NEW DEAL AND THE ELECTRIC UTILITY INDUSTRY, 1932-41*, at 21, 42-43, 56, 256 (1973). Brandeis also advocated financing public works projects, especially water projects, from increased corporate and inheritance taxes. B. MURPHY, *THE BRANDEIS/FRANKFURTER CONNECTION* 93, 104-05, 389 (1982). For a critical review of the Murphy book, see Frank, *Book Review*, 32 J. LEGAL ED. 423 (1982).

80. National electric consumption, which had been 10 billion kilowatt hours (kwh) in 1910 and 31 billion kwh in 1920, mushroomed to 76 billion kwh by 1929. P. FUNIGIELLO, *supra* note 79, at xiv n.5.

81. Utility mergers also promoted access to financial markets and managerial and engineering talent. *Id.* at xiv.

82. See *supra* note 74 and accompanying text.

83. The FTC was originally directed to investigate possible antitrust violations in the electric power industry by a joint congressional resolution in 1925. S.J. Res. 329, 68th Cong., 2d Sess. (1925). The agency's 1927 report could find "no conclusive evidence" of the existence of a "power trust" and asserted that power company consolidation was necessary in particular locations to raise capital, reduce fixed costs, and increase returns. The FTC's conclusion that dismantling power companies would result in excessive competition, inefficiency, and higher rates incensed reformers like Montana's Senator Thomas Walsh, who sought another investigation by an independent committee. See *supra* note 74. However, opposition from utilities and the investment banking community, who were fearful that such an investigation would lead to federal regulation of the industry, initially blocked the investigation. A compromise proposed by Senator Walter George of Georgia, transferring the investigation back to the FTC, enabled the resolution to pass. But it was an amendment of Senator Hugo Black of Alabama, providing for public involvement in the investigation, along with a change in FTC personnel, that ensured that the new investigation would not be another whitewash. P. FUNIGIELLO, *supra* note 79, at 6-20. The FTC's report, hurriedly released during the debate over the Public Utility Act of 1935, called for federal regulation of interstate holding companies to ensure adequate customer service and fair prices. *Id.* at 28, 58.

state public utility commissions, their parent holding companies were not.⁸⁴ As a result, reformers called upon the federal government to break up power monopolies by eliminating large holding companies. These arguments found receptive ears in the White House, for FDR believed that the centralization of wealth and power in the electric industry amounted to “private socialism,” resulting in unwarranted corporate control over other people’s money.⁸⁵ The ensuing Public Utility Holding Company Act of 1935⁸⁶ imposed federal regulation on interstate holding companies, forbade increased economic concentration in the industry, and imposed a “death sentence” on the largest holding companies.⁸⁷ By strengthening federal regulation over the electric power industry, the Public Utility Holding Company Act of 1935⁸⁸ caused private utilities to become more concerned about the quality of their customer service, a concern that would ultimately enable many Pacific Northwest utilities to resist the public power movement.

B. *The Public Power Crusade*

There was, of course, another means of responding to the high rates,

84. In 1927 the Supreme Court held that interstate holding companies could not be regulated as public utilities by state commissions. *Public Util. Comm’n of R.I. v. Attleboro Steam and Elec. Co.*, 273 U.S. 83 (1927). For analyses of public utility regulation by an important New Deal figure, see Lilienthal, *The Regulation of Public Utility Holding Companies*, 29 COLUM. L. REV. 404 (1929); Lilienthal, *Regulation of Public Utilities During the Depression*, 46 HARV. L. REV. 745 (1933).

85. FDR believed that because of their size, large corporations could not know the detail of their own operations, which would lead to inefficiency. Like Brandeis, he felt that the worst evil of electric holding companies was the centralization of wealth and power in the hands of a few. Calling for a breakup of electric holding companies in his message transmitting the National Power Policy Commission report on the proposed 1935 Holding Company Act, the President condemned the holding company in Brandeisian terms, terming it “a corporate invention which can give a few corporate insiders unwarranted and intolerable powers over other people’s money.” Report of the National Power Policy Committee on Utility Holding Companies, 74th Cong., 1st Sess. 2316 (1935). FDR shared the Justice’s view that dispersion of power would promote economic independence of local companies, resulting in improved service for consumers. P. FUNIGIELLO, *supra* note 79, at 69–73.

86. Pub. L. No. 74-333, 49 Stat. 803 (codified at 15 U.S.C. §§ 79–79z-6 (1976)).

87. Section 11 of the 1935 Act mandated compulsory dissolution of large holding companies after 1940, except where necessary to comply with state laws or to maintain efficient service. 15 U.S.C. § 79k (1976). The Act also prohibited increased economic concentration in the industry, although a provision suggested by Felix Frankfurter authorized the Securities and Exchange Commission to approve exceptions where necessary to achieve the goals of local management, efficient operation, or effective regulation. By 1941, dissolution proceedings were pending against 14 of the largest electric holding companies. P. FUNIGIELLO, *supra* note 79, at 80, 93–97, 261–62.

88. The holding company legislation passed along with amendments to the Federal Power Act, which substantially expanded the power of the Federal Power Commission, giving the Commission authority over accounting and pricing practices of electric utilities. See Federal Water Power Act of 1920, ch. 285, 41 Stat. 1063, amended by Federal Power Act of 1935, ch. 687, 49 Stat. 863 (codified as amended in scattered sections of 16 U.S.C. (1976)). See generally *Federal Power Commission Special Issue*, 14 GEO. WASH. L. REV. 1 (1945).

unreliable service, and failure to serve rural areas that characterized the private utility boom of the 1920's: the government could construct and operate generating resources.

Fusing the Progressive notion of public control over waterways with the belief that the federal government could and should stimulate economic recovery through fiscal policy, the New Deal ushered in an era of unprecedented federal water project development. The most spectacular victory for public power interests occurred at Muscle Shoals, where Senator Norris' decade-long fight against private power development culminated in the enactment of the Tennessee Valley Authority Act in 1933.⁸⁹

In fact, the election of Franklin Roosevelt promised a new public power era.⁹⁰ One month before the election, Roosevelt told 8000 cheering public power supporters in Portland, Oregon that, if elected, he would pursue a nine-point power program that included government ownership where necessary to secure lower electric rates.⁹¹ Some partisans viewed the New Deal victory as the beginning of an era in which public power would replace private power. In retrospect, however, FDR's campaign promise of federal water development indicated a more limited objective: public power would serve as a "yardstick" by which to measure private utility rates.⁹²

Although Pacific Northwest public utility districts made gains in every election between 1930 and 1936,⁹³ they were never able to create a comprehensive federal agency with powers similar to those of the Tennessee Valley Authority. It is true that the public preference clause in the 1937

89. Pub. L. No. 73-17, 48 Stat. 58 (codified as amended at 16 U.S.C. §§ 831-831dd (1976 & Supp. V 1981)). The Act, passed in April 1933, was upheld against private utility allegations of unconstitutionality two years later. *Ashwander v. TVA*, 297 U.S. 288 (1936) (TVA dam construction was a valid exercise of commerce clause and war power authority of Congress).

90. While governor of New York, FDR supported legislation authorizing state ownership of hydroelectric projects that he eventually signed in 1931, creating the New York Power Authority. See BPA HISTORY, *supra* note 20, at 20.

91. The Portland speech illustrated Roosevelt's pragmatism. He did not call for nationalizing private power companies that some public power advocates saw as the first step toward national economic planning. Instead, he endorsed government ownership to supply a "yardstick" by which to measure private utility rates and to promote widespread use of electricity, particularly in rural areas. P. FUNIGIELLO, *supra* note 79, at 30-31, 257-59.

92. FDR repeated his pledge after his election in a November 1934 speech at Tupelo, Mississippi, where he called for "little TVA's" in other areas of the country. *Id.* at 51-52. Three years later he again called for a series of regional conservation authorities that would consist of eight major planning units and three "planning and management" units in the Tennessee, Mississippi, and Columbia River Basins. B. HOLMES, *supra* note 25, at 22.

93. By 1940 Washington voters had created 29 public utility districts, 15 in the 1936 election alone. Oregon voters created four peoples' utility districts. The rural nature of the public power movement is evidenced by the fact that, despite these elections, in 1940 80% of the region's population was served by private utilities. BPA HISTORY, *supra* note 20, at 50-52.

Bonneville Project Act⁹⁴ and BPA's emphasis on constructing transmission lines to serve rural areas benefitted public power for years.⁹⁵ But in reality the Pacific Northwest public power movement crested shortly after 1937 for a variety of reasons. First, prompted by the 1935 Public Utility Holding Company Act, the private utility industry began to provide better service.⁹⁶ Second, private utilities began to invest some of their profits in public relations and, in particular, in election campaigns, with increasing success.⁹⁷ Third, public power meant bureaucracies, often federally controlled.⁹⁸ Running against increased centralization of authority, private power won a convincing victory in the elections of 1940 and 1941.⁹⁹ Finally, the war years that followed deflected attention away from the differences between public and private power and began an emphasis on interconnection to assist in the war effort.¹⁰⁰ When the war ended, the fervor for public power could not be revived, although there were some isolated public takeovers, notably in Seattle.¹⁰¹

C. *The Struggle Over Centralized Planning*

The New Deal's emphasis on water projects¹⁰² as the linchpin of its regional economic development plans revived the old Progressive notion that one executive agency should coordinate all water developments.¹⁰³ Although lack of a national power policy was recognized as a principal reason for the electric shortages experienced during World War I,¹⁰⁴ only

94. Ch. 720, 50 Stat. 731 (1937) (codified at 16 U.S.C. §§ 832-832I (1976 and Supp. V 1981)). For a history of public preference under a number of federal power marketing acts, see Comment, *The Meaning of the Preference Clause in Hydroelectric Power Allocation Under the Reclamation Statutes*, 9 ENVTL. L. 601 (1979). Cf. E. Redman, *Preference and Other Clauses in Federal Power Marketing Acts* (unpublished manuscript, to be published in 13 ENVTL. L. (1983)).

95. See generally BPA HISTORY, *supra* note 20, at 111-17, 137-48.

96. Philip Funigiello notes that by 1941, utility operating ratios were lower and new investment was under control. P. FUNIGIELLO, *supra* note 79, at 266.

97. Wendell Wilkie, of the Commonwealth and Southern Holding Co., asserted that private utilities helped to propel the public power movement by neglecting public relations. *Id.* at 265-66. Between 1935 and 1940, more than \$1 million was spent by private utilities to fight public utility elections, including establishing front organizations like "Let the People Vote League." BPA HISTORY, *supra* note 20, at 98-100.

98. P. FUNIGIELLO, *supra* note 79, at 220-21.

99. *Id.* at 267-68.

100. See *infra* notes 125-27 and accompanying text.

101. BPA HISTORY, *supra* note 20, at 101. Seattle City Light's acquisition of Puget Sound Power and Light facilities in 1951 was the largest public takeover in Pacific Northwest history. *Id.* at 76.

102. Forty percent of the President's requested 1939 public works budget was for water projects. B. HOLMES, *supra* note 25, at 19.

103. See *supra* note 47.

104. In 1921, Colonel Charles Keller of the Corps of Engineers released a report that attributed deficiencies in the national defense power program to a lack of comprehensive federal policy. To remedy this, Keller urged interconnection through a unified power grid and an expansion of generat-

tentative steps toward agency coordination were taken during the postwar years.¹⁰⁵ Thus, at the dawn of the New Deal, water resources planning was still largely controlled by individual congressmen, particularly those on the Public Works and Appropriations Committees.¹⁰⁶

In the name of effectively confronting the national economic crisis, the New Deal included measures aimed at providing a much larger role for the Executive Branch in water development. In the first few months of 1933, the Tennessee Valley Authority and the National Industrial Recovery Acts gave unprecedented public works planning authority to the Executive.¹⁰⁷ A year later FDR established the National Power Policy Committee, an interagency committee charged by the President with developing a unified national power policy. The Committee, chaired by Interior Secretary Harold Ickes, played an important role in the drafting of the 1935 Holding Company Act.¹⁰⁸ It did not, however, function as a central planning agency or lay the groundwork for its successors to do so.¹⁰⁹ This failure was largely due to the steadfast opposition of the Corps of Engineers, long a foe of central planning entities that might jeopardize its close relationship with Congress.¹¹⁰ In fact, the Corps not only helped

ing capacity. Another 1921 report by W.S. Murray, a New York consulting engineer, also urged national planning to increase efficiency. P. FUNIGIELLO, *supra* note 79, at 226–28.

105. One such tentative step was the Corps' issuance of its first "308 Reports" during the 1920's. See *supra* note 67 and accompanying text. In addition, the Employment Stabilization Act of 1931, ch. 117, §8(b), 46 Stat. 1984, 1087, required all federal agencies to prepare six-year advance programs of authorized public works projects. These six-year plans became a chief element of water resources development for years. B. HOLMES, *supra* note 25, at 12, 19.

106. *Id.* at 21, 31–32. The independence of the Bureau of Reclamation was curtailed in 1914. See *supra* note 69. Committee resolutions, which could not be vetoed and avoided the tortuous process of passing a bill, were relied on by the Corps as an important means of congressional authorization.

107. Tennessee Valley Authority Act of 1933, Pub. L. No. 73-17, 48 Stat. 58 (codified as amended at 16 U.S.C. §§ 831–831dd (1976 & Supp. V 1981)); National Industrial Recovery Act, Pub. L. No. 73-67, 48 Stat. 195 (1931). Under Title II of the NIRA, \$3.3 billion was appropriated for the planning and construction of public works projects. B. HOLMES, *supra* note 25, at 15. Many of the projects begun under Title II authority were later declared to be unauthorized by the Supreme Court in *United States v. Arizona*, 295 U.S. 174, 186–92 (1935).

108. Public Utility Holding Company Act of 1935, Pub. L. No. 74-333, 49 Stat. 803 (codified as amended at 15 U.S.C. §§ 79–79z-6 (1976)). See P. FUNIGIELLO, *supra* note 79, at 38–66.

109. P. FUNIGIELLO, *supra* note 79, at 39, 261. The National Planning Board, created in 1933, was followed by the National Resources Board in 1934, the Natural Resources Committee in 1935, and the Natural Resources Planning Board in 1939. Beatrice Holmes considered these agencies to be functionally identical. B. HOLMES, *supra* note 25, at 14–15. They all suffered from a lack of statutory basis, no jurisdictional definition, and waning presidential interest in central planning as the nation seemed headed for economic recovery. P. FUNIGIELLO, *supra* note 79, at 259.

110. Corps opposition helped defeat legislation that would have created a permanent Natural Resources Board in 1935 and 1936, forcing FDR to continue central water planning functions by Executive Order. B. HOLMES, *supra* note 25, at 16, 22. Interior Secretary Harold Ickes, the Roosevelt Cabinet's chief proponent of central economic planning, summed up his feelings about the Corps in a foreword to Arthur Maass' *Muddy Waters* (1951): "No more lawless or irresponsible Federal

to block New Deal efforts to establish a central water planning agency, it managed to augment its own water resource responsibilities, having finally embraced the multiple-use concept.¹¹¹

Although coordinated water planning nominally remained a New Deal goal until 1943,¹¹² a central planning agency was not a realistic possibility after 1939.¹¹³ Thus, while multiple water use planning became widely accepted¹¹⁴ and several important reforms were instituted during the New Deal,¹¹⁵ a national water planning agency remained an elusive ideal. In retrospect, this failure is attributed not simply to the Corps and its congressional allies who feared losing influence over public works; it also was a reflection of the fact that, fundamentally, New Dealers were more

group than the Corps of Army Engineers has ever attempted to operate in the United States, either outside of or within the law." *Id.* at xiv.

111. In 1935, Congress directed the Corps to supplement its "308 Reports" to take into account economic changes and additional streamflow data, thus effectively supplying the Corps with continuing authority to undertake nationwide river-basin planning. A year later, Congress gave substantial flood control responsibilities to the Corps in the Flood Control Act of 1936, Pub. L. No. 74-738, §§ 1-19, 49 Stat. 1570-96 (codified as amended at 33 U.S.C. §§ 701a-701f, 701h (1976)). And in 1938 the Corps was authorized to install power facilities at flood control projects on the basis of recommendations by the Chief of Engineers and the Federal Power Commission. B. HOLMES, *supra* note 25, at 16.

Perhaps one reason the Corps readily accepted new flood control responsibilities is that, like navigation benefits, no local cost-sharing is required for flood control benefits. B. HOLMES, *supra*, at 20.

112. The last hope for a central water planning agency died in 1943 when Congress refused to appropriate funds for the Natural Resources Planning Board and expressly directed that its functions not be transferred to another agency. Such transfers were a frequent New Deal practice. *See, e.g., supra* note 109. Encouraged by the Corps and conservatives who were alarmed by other experiments with central planning, such as social security and fiscal policy, Congress terminated funding despite a plea from FDR that the Board was necessary for post-war planning. B. HOLMES, *supra* note 25, at 22.

113. In the 1939 Reorganization Act, Congress required that any future presidential reorganization plans be submitted to it, reserved the right to reject such plans by joint congressional resolution, and expressly stipulated that the plans not transfer any Corps' functions. Reorganization Act of 1939, Pub. L. No. 76-16, §§ 3, 4, 5, 53 Stat. 561, 561-63 (1936). *See also* B. HOLMES, *supra* note 25, at 22 (describing this and other reorganization attempts).

114. For example, the 1939 Reclamation Act sanctioned partial repayment of reclamation projects from power revenues, encouraging the Bureau to advocate multiple purchase projects. Reclamation Act of 1939, ch. 418, § 9, 53 Stat. 1187, 1197-96 (codified as amended in scattered sections of 43 U.S.C.). *See supra* note 111 (the Corps and multiple use). *See also* B. HOLMES, *supra* note 25, at 21, 35.

115. Although a centralized water planning agency could not gain congressional support, the 1936 Flood Control Act managed to impose some control over congressional "log rolling" by requiring that projects satisfy a cost-benefit test, a threshold that before long all federal water projects would have to hurdle. Flood Control Act of 1937, 33 U.S.C. § 701a (1976). The cost-benefit test has proved to be an enduring source of controversy because of disagreements over how to compute benefits. *See, e.g., Jaffe, Benefit-Cost Analysis and Multi-Objective Evaluation of Federal Water Projects*, 4 HARV. ENVTL. L. REV. 58 (1980). In addition, the 1935 Public Utility Holding Company Act instituted federal oversight of accounting and pricing practices of utilities. 15 U.S.C. §§ 79-79z-6 (1976 and Supp. V 1981). And, of course, a number of federal "yardsticks" were created, notably BPA and TVA, the latter the only federal agency empowered to exercise all development and management functions within a particular geographic area.

concerned with providing cheap electricity for the consumer than with pursuing waterways development according to a scientific plan drafted by experts in Washington, D.C. Cheap electricity, whether from public projects or private utilities, was the foremost New Deal goal.¹¹⁶ Centralized water planning was, therefore, a concept easily compromised by the pragmatic Roosevelt in pursuit of this goal.

D. *The Bonneville Project Act*

In the Pacific Northwest New Deal water planning proceeded quickly because the first of the Corps' "308 Reports" on the Columbia River and its tributaries was completed in 1931.¹¹⁷ The report called for a series of ten dams on the main-stem Columbia, including what were to become the Bonneville and Grand Coulee projects. Construction began on both projects in 1933. After the Supreme Court ruled in 1935 that the projects had not been authorized by Congress, Congress quickly reauthorized both projects in the same year, and construction continued.¹¹⁸ As the Bonneville project drew near to completion, distribution of the surplus power produced by the dam became the subject of debate both in the region and in Washington, D.C.

Between 1935 and 1937, thirty-eight bills were introduced in Congress regarding the marketing of power from Bonneville Dam.¹¹⁹ The most crucial issues in this debate over the legislation were: (1) which agency should have responsibility for project operations and power marketing; (2) what the scope of federal responsibilities regarding construction of transmission lines should be; and (3) whether power should be sold at uniform rates irrespective of geographic distance from the project. Public power advocates generally wanted establishment of a regional Columbia Valley Authority, with comprehensive powers similar to those possessed by the TVA. This authority would promote public power and widespread use by constructing transmission lines throughout the region, delivering

116. See P. FUNIGIELLO, *supra* note 79, at 260, 268 (cheap electricity for the consumer was the unifying theme of the New Deal power policy; centralized water planning was inconsistent with breaking up large holding companies and with the "grassroots" administration adopted by TVA); S. HAYS, *supra* note 28, at 241, 248-49 (comprehensive planning failed because many, especially Westerners, feared that executive agency planning would exclude them from influence; "scientific management" effectively meant a bureaucrat who was unaffected by local politics); B. HOLMES, *supra* note 25, at 23 (multiple-use reservoirs were threatening to local utilities and sometimes farmers, rural real estate interests, and sportsmen).

117. See Blumm, *supra* note 6, at 225.

118. Both projects were funded under the National Industrial Recovery Act of 1933 and later required reauthorization after the Supreme Court's decision in *United States v. Arizona*, 295 U.S. 174, 186-92 (1935). See *supra* note 107.

119. BPA HISTORY, *supra* note 20, at 35-36.

power at a uniform rate, and giving preference to publicly owned utilities.¹²⁰

Private power interests, on the other hand, argued for a more limited federal role. They favored project operation and power sales by the Corps, limited federal construction of transmission lines, and rates that reflected the cost of power transmission.¹²¹ Allied with the private power companies were economic interests in Portland, which wished to maximize their proximity to Bonneville, and the Corps, which of course wanted as broad a charter as possible.¹²² The debate over the Bonneville legislation thus invoked urban/rural conflicts, private/public power competition, and intergovernmental power struggles.

These conflicts prevented passage of the bill in 1936, but a compromise was reached the following year. This compromise preserved the Corps' role as project operator but authorized a Bonneville Project Administrator to market power, construct transmission lines, and set rates.¹²³ Although the legislation did not establish the TVA-like agency that private power

120. A bill establishing a CVA was introduced by Idaho's James Pope in the Senate and by Washington's Knute Hill in the House. S. 689, 74th Cong., 1st Sess. (1935); H.R. 2790, 74th Cong., 1st Sess. (1935); see BPA HISTORY, *supra* note 20, for background history of the bills. Many CVA advocates wanted a new agency because they believed the Corps was too susceptible to pressure from private power companies. P. FUNIGIELLO, *supra* note 79, at 179. On the cozy relationship between the Portland District Engineer and local economic interests, see E. MACCOLL, *THE GROWTH OF A CITY: POWER AND POLITICS IN PORTLAND, OREGON, 1915 TO 1950*, at 556, 698 n.3 (1979).

121. Cost of service pricing and few federal lines would maximize the locational advantage of private utilities in Oregon. By reducing their rates, these utilities hoped to keep a lid on the proliferating public power movement. BPA HISTORY, *supra* note 20, at 79–80.

122. Republican Governor Charles Martin and Senator Charles McNary of Oregon wanted low rates to attract industry to the Columbia Gorge. They believed that, without industrial sales, the project would not be able to pay for itself. P. FUNIGIELLO, *supra* note 79, at 175, 188–89, 201–02. Both the Portland Chamber of Commerce and the Portland Corps District Engineer opposed uniform, “postage stamp” rates because uniformity would increase electric rates in Portland. *Id.* at 177–80. The Corps wanted limited federal involvement in transmission line construction, preferring “busbar sales” to industry at the damsite. *Id.* at 188. Given the role of project operator, the Corps was more willing to accept the legislation than its industrial and private power allies. *Id.* at 186, 190.

123. Congress adjourned for the 1936 elections before passing the Bonneville Project Act. However, the committees working on the legislation favored vesting power-marketing responsibilities with the Corps. After the New Deal landslide and widespread public power successes in the election, see *supra* note 93, FDR asked the Committee on National Power Policy to issue a report on the legislation. The Committee was chaired by the Corps' longtime opponent, Secretary Ickes. See *supra* note 110. Not surprisingly, the Committee opposed the Corps as the power-marketing authority, favoring instead a new bureau within Ickes' department. It also recommended that power be marketed at uniform rates to promote widespread use and that a preference be given to public utilities. See P. FUNIGIELLO, *supra* note 79, at 176, 181–84.

Washington Senator Homer Bone suggested a compromise in which a new agency would be given power marketing authority, with the Corps responsible for day-to-day operations. More concerned about maintaining a continuing role for itself than with protecting its private power allies from a new public power oriented agency, the Corps accepted the Bone compromise. *Id.* at 190–91. See generally BPA HISTORY, *supra* note 20, at 55–62 (brief history of the legislation).

interests feared, its directives to give priority to public power and to foster “widespread use” gave public power advocates much of what they sought.¹²⁴ Whether rates should be uniform was left to the discretion of the new Administrator.¹²⁵ Discretionary power over such a vital issue, combined with the broad delegation of authority to the Administrator throughout the statute, made the selection of the first Administrator a very important appointment.¹²⁶

E. “Postage Stamp” Rates and Rural Electrification

When FDR dedicated the Bonneville Dam in September of 1937, he was met with numerous placards proclaiming “we want Ross” for Bonneville Administrator. J.D. Ross, formerly with Seattle City Light and then a Commissioner with the Securities and Exchange Commission, was the choice of public power advocates who believed he would promote uniform, “postage stamp” rates and rural electrification.¹²⁷ Opposed to Ross were private utilities, the Portland Chamber of Commerce, and Oregon Republican Governor Charles Martin, for whom uniform rates meant higher rates to pay for electrification of rural areas and a consequent loss of Portland’s locational advantage.¹²⁸ Ross, of course, got the job and in 1938 proceeded to institute a uniform rate of two mills per kilowatt hour, a rate that survived for twenty-seven years.¹²⁹

124. Bonneville Project Act of 1937, ch. 720, 50 Stat. 731 (codified at 16 U.S.C. §§ 832-832I (1976 & Supp. V 1981)). Section 4(a) of the Act gave preference and priority to public power and § 2(b) provided for widespread use to prevent monopolization. Section 2(b) also anticipated connecting the Bonneville project with other federal projects, foreshadowing BPA control over Grand Coulee-produced power.

125. Bonneville Project Act of 1937, ch. 720, 50 Stat. 731 (codified at 16 U.S.C. §§ 832-832I (1976 & Supp. V 1981)). Section 6 of the Act authorized, but did not mandate, uniform rates “in order to extend the benefits of an integrated transmission system and encourage the equitable distribution of electric energy.” The same provision gave the Federal Power Commission a veto authority over BPA’s rates.

126. See P. FUNIGIELLO, *supra* note 79, at 194.

127. *Id.*

128. Governor Martin, the Chamber of Commerce, and private utilities opposed Ross who had served as an unofficial lobbyist for the Washington Public Ownership League. They feared his commitment to uniform rates would lead to increased costs, undermining advantages that Portland could offer new industries. Commercial and private power interests around Portland were more than a little envious of Seattle’s industrialization and were suspicious of Ross’ Seattle background. Ross, who sought to decentralize population through uniform rates, was supported by public power interests, labor, and the granges. *Id.* at 189-91, 194-95. For a recent remembrance, see Barich, *Our Far-Flung Correspondents: J.D. Ross’s Vision*, THE NEW YORKER, Jan. 4, 1982, at 57.

129. BPA HISTORY, *supra* note 20, at 86. Two mills meant a rate of \$17.50 per kilowatt-year (kwy). A slightly lower rate of \$14.50 per kwy was authorized for customers within 15 miles of the dam who provided their own transmission. Uniform rates were designed to encourage dispersion of industry throughout the region and to induce rural electrification. See *id.* at 80, 85-86.

Although head of Bonneville for less than a year and a half, Ross left a substantial legacy. In addition to establishing a uniform rate of two mills, he placed a heavy emphasis on construction of transmission lines,¹³⁰ actively encouraged formation of public utility districts,¹³¹ and indicated a preference for selling power to industries that employed large numbers.¹³² After his unexpected death in March of 1939, his successor, Paul Raver (who was to serve as Administrator for nearly fifteen years), pursued Ross' notion of social planning by signing industrial power contracts,¹³³ although he backed away from openly advocating public power.¹³⁴

By the time Pearl Harbor thrust the nation into war, Bonneville's temporary status had been made permanent,¹³⁵ and the agency successfully demonstrated that low electric rates would induce increased consumption.¹³⁶ By constructing a high-voltage line between Bonneville and Grand Coulee Dams, BPA laid the cornerstone of what would become a

130. The emphasis on transmission line construction is illustrated by BPA's "bricks and mortar" budgets. For example, in fiscal year 1939, the agency had a \$3.5 million construction budget, and only \$165,000 for administration; in fiscal year 1940, the construction budget was \$14.4 million for construction, \$400,000 for operations. *Id.* at 112, 116.

131. Ross particularly encouraged the formation of public utility districts that would acquire Puget Sound Power and Light. P. FUNIGIELLO, *supra* note 79, at 204.

132. *Id.* at 197–98. Industrial power sales were signalled when a provision similar to that in the TVA Act declaring industrial power sales to be a secondary purpose was deleted from the Bonneville Act. This deletion, along with the concern for protecting the scenic values of the Columbia Gorge, is evidence that advocates viewed water power development in the Pacific Northwest as a way to achieve industrialization without pollution. *See* BPA HISTORY, *supra* note 20, at 129–30. Although Ross indicated that he would reserve 20% of Bonneville power for industrial sales, he discouraged aluminum companies because they employed relatively few workers. *Id.* at 129–33. On the employment generated by the region's aluminum industry, see *supra* note 20.

133. In 1939, rather than sign one large power sale contract with Alcoa, Raver insisted that smaller plants be constructed at geographically dispersed locations in the name of regional equity and antimonopoly. BPA HISTORY, *supra* note 20, at 133. It should be noted that the Justice Department initiated antitrust litigation against Alcoa in 1937, culminating in a 1945 decision in which Judge Learned Hand ruled that Alcoa was a monopoly. *U.S. v. Aluminum Co. of Am.*, 148 F.2d 416 (2d Cir. 1945). *See* W. RODGERS, CORPORATE COUNTRY 162–63 (1973) (noting that after World War II, the federal government disposed of its defense plants in a way that assisted Alcoa's competitors, Reynolds and Kaiser, and that since the war, the three competitors "have learned to live together, working through international consortiums, joint ventures and sometimes plain old conspiracies").

134. Raver insisted on remaining neutral in the 1940 public utility district elections, perhaps contributing to the convincing defeat that public power suffered that year. P. FUNIGIELLO, *supra* note 79, at 219–20.

135. In January 1940, the Secretary of the Interior renamed the Bonneville project as the Bonneville Power Administration. BPA HISTORY, *supra* note 20, at 68. Later that year, BPA was directed to market power produced from Grand Coulee Dam. Exec. Order No. 8526, 5 Fed. Reg. 3390–91 (1940).

136. P. FUNIGIELLO, *supra* note 79, at 264–65. The price elasticity of demand, however, remained a controversial issue in the 1960's and 1970's. *See, e.g.*, Blumm, *supra* note 18, at 148 n.197.

region-wide, integrated grid.¹³⁷ Moreover, in order to finance its transmission line construction, Bonneville was compelled to lure to the region industries that were power dependent.¹³⁸

III. THE WAR AND ITS AFTERMATH

If the New Deal looked upon federally produced, cheap power and regional planning as a means to promote economic revitalization and rural electrification and to combat the evils of economic monopolies, the war years then thrust power policy into the forefront of the defense effort. In the Pacific Northwest, the pre-war antimonopoly concerns that had fueled the often bitter public-versus-private power struggles took a back seat to efforts to mobilize the region behind the war effort. Founded as an agency to promote public power, the Bonneville Power Administration evolved into a kind of regional chamber of commerce during the war years, helping to attract defense industries with its cheap power. After the war, while not entirely abdicating the public power movement and continuing to foster rural electrification, BPA's primary efforts were devoted to increasing the electric capacity of the region, rather than to encouraging additional public takeovers of private utilities. Although it would be inaccurate to describe the war and post-war years as a period in which public and private utilities completely buried their hatchet, the era witnessed operational integration of the system and laid the groundwork for the region-wide cooperation that would become the dominant characteristic of the Pacific Northwest electric power industry in the 1950's.

A. *Preparing for War*

In 1938, with war impending in Europe and with the power shortages of World War I in mind, FDR asked the Federal Power Commission and the War Department to survey the adequacy of the nation's power capacity.¹³⁹ Their report concluded that the country faced serious power deficits in the event of war and recommended that immediate steps be taken to rectify the situation. However, their proposal to use Reconstruction Finance Corporation funds to finance defense power plants was disputed by public power advocates like Interior Secretary Ickes who believed that loans to private power companies would undermine the New Deal's pub-

137. See P. FUNIGIELLO, *supra* note 79, at 264-65.

138. See *id.* at 208 (describing an *Oregonian* eulogy of J.D. Ross praising him for persuading the federal government to invest in transmission lines which consequently required BPA to find or create new power uses, especially new industries, in order to meet its federal repayment obligations).

139. *Id.* at 229-30.

lic power program.¹⁴⁰ Without such government assistance, private utilities, which feared that expansion of their generating capacity would be an economic liability if war was averted, refused to expand.¹⁴¹ This stalemate persisted until Pearl Harbor.¹⁴² Three weeks after the Japanese attack, the private industry's Edison Electric Institute reported a nationwide power shortage.¹⁴³

B. BPA Goes to War

While the rest of the nation was power-short going into the war, the Pacific Northwest was better situated. When Grand Coulee was completed in 1941, the region was blessed with a surfeit of power. Given authority to market Grand Coulee power by executive order,¹⁴⁴ BPA moved aggressively to complete the transmission line between Bonneville and Grand Coulee and to enter into contracts with defense-related industries. The agency also conducted industrial site surveys that helped the Defense Plant Corporation locate numerous electro-process plants throughout the region.¹⁴⁵ By 1942, ninety-two percent of BPA's load was committed to industry.¹⁴⁶

140. The FPC suggested financing new plants with RFC loans, leasing equipment to private industries, or issuing direct RFC loans to private utilities to finance plant expansion. Ickes believed that government funds would enable private utilities to free up additional money to support their efforts to undermine the public power movement, recalling the money private utilities invested in litigating the constitutionality of the TVA and in defeating public utility formation in the Northwest elections. *See supra* notes 89 & 97. Not all New Dealers shared Ickes' antipathy toward private utilities, and some, like George Norris, feared Ickes' empire building more than federal cooperation with the private utility industry. P. FUNIGIELLO, *supra* note 79, at 233, 238–42, 247–54.

141. *Id.* at 239–40. This refusal paralleled the private utility position in the pre-World War I era, when the utilities resisted incurring the increased costs of expansion because they believed increased demand would be temporary and because state public utility commissions refused to allow an increased rate of return despite this uncertainty. As a result of utility intransigence, in 1918 the War Industries Board abandoned expansion attempts and imposed power rationing. *Id.* at 230–31.

142. This private utility recalcitrance may have influenced the conclusions of the Temporary National Economic Committee, an interdepartmental committee commissioned by Congress to study monopoly power and make recommendations. *See* C. GOODWIN, W. BARBER, J. COCHRANE, N. MARCHI, & J. YAGER, *ENERGY POLICY IN PERSPECTIVE 4–5* (1981) [hereinafter cited as C. GOODWIN]. The Committee's 1938–41 investigation, which coincided with the interim between the FPC/War Department study and the onset of the war, concluded that "curtailed production for selfish ends [can be counteracted by] the development of competing industries," and recommended that the government would have to assume responsibility for ensuring adequate supplies during the war and competitive prices after the war. *Id.* at 5.

143. BPA HISTORY, *supra* note 20, at 123–24.

144. Exec. Order No. 8526, 3 C.F.R. 704 (1938–1943 Comp.), *amended by* Exec. Order No. 12038, 3 C.F.R. 136 (1978 Comp.); *see* BPA HISTORY, *supra* note 20, at 124.

145. BPA HISTORY, *supra* note 20, at 125.

146. *Id.* at 123. In 1943, these power loads included the "mystery load," which, of course, was the Atomic Energy Commission's Hanford Reservation. *Id.* at 125.

The early war years saw numerous defense contracts awarded to Pacific Northwest industries.¹⁴⁷ BPA embarked on a crash transmission line construction program to meet defense plant deadlines.¹⁴⁸ The agency also stepped up considerably its schedule for installation of generators at Bonneville and Grand Coulee.¹⁴⁹ However, rural electrification was stymied by material shortages (especially copper wiring) and limited non-defense budgets.

Perhaps the most noteworthy effect of the war on the Northwest hydroelectric system was its inducement to interconnection. BPA interconnection studies prompted the War Production Board in 1942 to order interconnected operations of the region's utilities to maximize efficiency.¹⁵⁰ This order prompted formation of the Northwest Power Pool, a voluntary partnership of the region's utilities designed to increase cooperation and information sharing. Interconnection of utility operations had the short-run effect of enabling the region to meet power loads despite the lowest streamflows in more than fifty years that fall,¹⁵¹ but its long-run effects were more significant. Interconnection signalled the beginning of an era in which public and private utilities would operate their projects as would one utility, which remains the chief characteristic of system operations today.¹⁵²

C. *Planning for the Post-War Era*

The economic boom that the war brought to the Northwest spurred interest in additional water projects. Although the Roosevelt Administration opposed any new project unless justified as an emergency war mea-

147. In June 1940, Congress passed the \$5 billion Military Appropriation Act of 1941, ch. 343, 54 Stat. 350 (1940), as an aid in attaining the U.S. production goal of 50,000 aircraft per year. The Act netted \$500 million in defense contracts for Oregon and Washington, proving once again that war is good for business. BPA HISTORY, *supra* note 20, at 124.

148. BPA transmission lines expanded from approximately 140 miles in 1940 to nearly 1200 miles in 1941 and to over 2500 miles by 1944, when construction fell off because appropriations were going to direct defense efforts. BPA HISTORY, *supra* note 20, at 127.

149. In 1940, BPA's annual report called for 10 Bonneville generators and six Grand Coulee generators to be installed by 1944. Four more Grand Coulee generators were to be installed by 1948. However, due to the war, all 10 of Bonneville's generators were installed by the end of 1943, and 15 Coulee units were on line by 1945. *Id.* at 126.

150. 7 Fed. Reg. 3266 (1942). A number of public power advocates in BPA were not enthusiastic about the interconnection order, correctly perceiving that it would help to undermine efforts to enact comprehensive regional power authority legislation. P. FUNIGIELLO, *supra* note 79, at 224. See *infra* text accompanying notes 173-75.

151. BPA HISTORY, *supra* note 20, at 126.

152. See BONNEVILLE POWER ADMINISTRATION, THE ROLE OF THE BONNEVILLE POWER ADMINISTRATION IN THE PACIFIC NORTHWEST POWER SUPPLY SYSTEM, INCLUDING ITS PARTICIPATION IN A HYDRO-THERMAL POWER PROGRAM I-10 (Dec. 1980) (Final Environmental Impact Statement) [hereinafter cited as FEIS].

sure,¹⁵³ a considerable amount of post-war planning was underway. The upper Columbia Basin was studied for storage project sites in 1943, resulting in the authorization of the Bureau of Reclamation's Hungry Horse project a year later.¹⁵⁴ Released from executive control by the demise of central water planning¹⁵⁵ and prodded by a fear of post-war depression, Congress authorized an unprecedented number of water projects in the 1944 Flood Control Act¹⁵⁶ and the 1945 Rivers and Harbors Act.¹⁵⁷ Both statutes authorized projects that would be constructed during the post-war era; for example, the Snake River developments authorized in the 1945 Act would not be completed until the mid-1970's.¹⁵⁸

New water project development could not, however, avoid post-war economic problems without an expanding industrial base to compensate for the slowdown in defense industries at the war's end. Production curtailments in the shipbuilding and aluminum industries led to layoffs and a power surplus of more than a million kilowatts by 1946.¹⁵⁹ In fact, this

153. See Blumm, *supra* note 6, at 231.

154. See *id.* at 232; BPA HISTORY, *supra* note 20, at 127. The Columbia Basin was also investigated for its irrigation potential in the early 1940's. B. HOLMES, *supra* note 25, at 17. Looking ahead to the post-war era, in 1943 Congress enacted the Columbia Basin Project Act, ch. 14, 57 Stat. 14 (codified as amended at 16 U.S.C. §§ 835, 835c-835c-4 (1976)), which reauthorized the Grand Coulee Dam as a reclamation project and enabled the Secretary of the Interior to sell public lands in the vicinity of the dam to encourage "the permanent settlement of farm families." 16 U.S.C. § 835c (1976).

155. Congress abolished the Natural Resources Planning Board (NRPB) in 1943. B. HOLMES, *supra* note 25, at 22. This ended a decade of New Deal attempts to maintain control over water projects through a central planning agency, an idea that germinated in the Progressive Era. See *supra* notes 48-53 and accompanying text. After the termination of the NRPB, control over new projects increasingly was left to local congressional delegations through the Public Works Committees, which developed close working relationships with development agencies like the Corps of Engineers and the Bureau of Reclamation. See *supra* note 106; B. HOLMES, *supra* note 25, at 23, 38; see also C. GOODWIN, *supra* note 142, at 175 (noting Congress' preference for decentralized electric power administration).

156. Flood Control Act of 1944, ch. 665, §§ 1-8, 15, 58 Stat. 887 (codified in scattered sections of 16, 33, & 43 U.S.C.). The Act made it clear that the Corps of Engineers, given substantial flood control responsibility in 1936, was the nation's chief flood control agency. On the other hand, the Department of the Interior was given power to market power produced at Corps projects, solidifying the role of power marketing agencies like Bonneville. As did the 1937 Bonneville Project Act, the Flood Control Act directed that power be marketed to promote widespread use, at low prices, and preferably to public bodies, effectively extending the Bonneville principles nationwide. See C. GOODWIN, *supra* note 142, at 172. The preference clause contained in section 5 of the 1944 Act infuriated private utilities who wished to see the Corps sell power from its projects at the bus bar. Private utility supporters promised a repeal of section 5 after the anticipated election of Thomas Dewey as President in 1948. See BPA HISTORY, *supra* note 20, at 72.

157. River and Harbors Act of 1945, ch. 19, 59 Stat. 10. The 1945 Act authorized the McNary Dam and the mainstem dams on the lower Snake. See Blumm, *supra* note 6, at 233-34.

158. The Lower Granite Dam was completed in April, 1975. See DEIS, *supra* note 17, Appendix A, at I-3.

159. BPA HISTORY, *supra* note 20, at 134. BPA's load dropped from nine billion kilowatt hours (kwh) in fiscal year 1945 to 6.2 billion kwh the following year. *Id.* at 128.

power surplus threatened to undermine attempts to expand the Northwest hydroelectric system, as private utilities, fearing additional public power projects, testified to Congress that no additional federal dams were needed.¹⁶⁰ Clearly, if the Pacific Northwest was to use its water power potential as the springboard to economic development, the region could not afford fractious public-versus-private power disputes.

D. BPA as a Regional Chamber of Commerce

With its role as power marketer assured by the war's end,¹⁶¹ Bonneville moved to expand its role as a regional economic planner. In 1945, BPA Administrator Paul Raver asked his superiors at the Interior Department whether the appropriate post-war federal role was limited to marketing existing power supplies, or whether the agency should anticipate future needs and help ensure that supplies were adequate to meet increased future demands.¹⁶² Sanctioning the latter course of action, the Interior Department, which still harbored hopes of becoming the nation's central energy planner,¹⁶³ ratified BPA's industrial sales policy, pursuant to which BPA sold half of its million kilowatt surplus to the aluminum industry in 1946.¹⁶⁴ Increased industrial sales in subsequent years evaporated the surplus and created a close relationship between BPA and its industrial customers that persists to this day.¹⁶⁵ In fact, the region experienced shortages in 1948, which prompted the agency to begin selling one quarter of the industrial load as "interruptible power."¹⁶⁶ Today this interruptible "top quartile" of the industrial load supplies the region with reserve capacity in low water years.¹⁶⁷

BPA also took steps to overcome private utility resistance to expanding federally produced electricity, playing an instrumental role in the 1946

160. *Id.* at 134.

161. *See supra* text accompanying notes 144–49.

162. *See C. GOODWIN, supra* note 142, at 176.

163. *See id.* at 14 (describing the aspirations of Secretary Ickes and Undersecretary Abe Fortas); *infra* note 176.

164. BPA HISTORY, *supra* note 20, at 134. Industrial power sales were seen as means to finance Northwest project development in a series of studies from 1932 to 1937. *See id.* at 132. Paying for projects with industrial sales was, of course, an old Progressive notion. *See supra* note 46.

165. Recent litigation challenges this close relationship. *See, e.g.*, *Central Lincoln Peoples' Util. Dist. v. Johnson*, 673 F.2d 1076 (9th Cir.) (BPA power sale contracts with industrial customers invalidated as violative of the public power preference provision in the 1937 Bonneville Project Act), *amended*, 686 F.2d 708 (9th Cir. 1982), *cert. granted*, 51 U.S.L.W. 3699 (U.S. Mar. 25, 1983) (No. 82–1071).

166. BPA HISTORY, *supra* note 20, at 136.

167. *See, e.g.*, Blumm & Johnson, *Promising a Process for Parity: The Pacific Northwest Electric Power Planning and Conservation Act and Anadromous Fish Protection*, 11 ENVTL. L. 497, 540–41 n.190 (1981).

founding of the Tacoma Conference, later named the Pacific Northwest Utilities Conference Committee (PNUCC), a coalition of public and private utilities and industries.¹⁶⁸ More than simply an advisory committee,¹⁶⁹ PNUCC assembled individual utility forecasts, lobbied in Congress for new dams and increased appropriations, and played a critical role in expanding the system during the post-war years. By preaching a “gospel of growth,” in which additional supplies of hydropower were assumed to be essential to the economic development of the region, PNUCC provided a means by which the region’s public and private utilities and electroprocess industries began to cooperate closely with each other. While their disagreements certainly did not disappear,¹⁷⁰ under BPA’s leadership the seeds of regional cooperation were sown.

E. The Defeat of the Columbia Valley Authority

One source of disagreement between public and private utilities that survived the formation of PNUCC concerned proposals to establish a Columbia Valley Authority, with comprehensive powers comparable to those of the Tennessee Valley Authority. Originally a New Deal proposal, the CVA was shelved as part of the 1937 compromise that enabled passage of the Bonneville Project Act.¹⁷¹ But the old New Deal dream of one agency responsible for project construction and operation, as well as power marketing, did not die easily. After the surprising reelection of President Truman in 1948, the President attempted to deliver on his campaign pledge to create additional Valley Authorities in the Columbia and Missouri River Basins.¹⁷² However, old interagency jealousies and the

168. BPA HISTORY, *supra* note 20, at 134, 161. BPA, the Corps of Engineers, and the Water and Power Resources Service serve as ex officio members of PNUCC. See Hittle, Larsen, Randall & Michie, *supra* note 7, at 263.

169. Advisory committees, composed largely of regulated firms, proliferated in the post-war era as one means of preserving the efficiencies of the business/government partnership that won the war. These committees were criticized by Assistant Secretary of Interior Girard Davidson, who thought they enabled regulated firms to play too large a role in policy formulation. Despite his reform efforts, advisory committees resumed their prominence during the Korean crisis. See C. GOODWIN, *supra* note 142, at 28, 47. Advisory committees such as the Bonneville Regional Advisory Council, the Columbia Basin Inter-Agency Committee, and the Pacific Northwest River Basin Commission, have always had an important influence on BPA. BPA HISTORY, *supra* note 20, at 168–69. In 1972, Congress imposed some controls on the formation, membership, and procedures of such committees, enacting the Federal Advisory Committee Act, Pub. L. No. 92-463, 86 Stat. 770 (1972). See W. RODGERS, HANDBOOK ON ENVIRONMENTAL LAW 64–72 (1977).

170. For an example of continuing public power distrust of private utilities during the war, see Coleman, *Rank-and-File Kilowatts*, in AMERICA’S ENERGY, *supra* note 72, at 81.

171. See *supra* note 123 and accompanying text.

172. B. HOLMES, *supra* note 25, at 23, 27. During the campaign, Truman assailed his opponents as foes of power for the masses who would sabotage public power and irrigation projects and make

steadfast opposition of the private utility industry combined to defeat the CVA in favor of the 1950 Rivers and Harbors Act, which authorized a number of new Columbia Basin projects.¹⁷³ Apparently, the institutional arrangements thought by New Dealers to be only “provisional” had settled;¹⁷⁴ by 1950 it was not politically feasible to restructure them.¹⁷⁵ However, the “gospel of growth” assured that there would be additional projects for the Corps of Engineers and the Bureau of Reclamation to construct and operate; power for BPA to market and sell; and, for more than a decade, enough cheap electricity to meet the demands of both public and private utilities and the electroprocess industry.¹⁷⁶

What little hope there remained for a CVA dissipated with the onset of the Korean War. The war not only deflected Administration attention from issues like the CVA, it also led to reduced appropriations for federal power projects.¹⁷⁷ Although BPA funding remained strong through this period,¹⁷⁸ the uncertainties inherent in the congressional appropriations

the West an economic colony of Wall Street. He saw valley authorities as a means to prevent this colonization. C. GOODWIN, *supra* note 142, at 180.

173. Ch. 188, § 204, 64 Stat. 163, 170 (1950). Opposition of the Corps of Engineers and the Bureau of Reclamation to the CVA was portrayed in a 1945 article in *The Nation*. See McWilliams, *The Northwest Needs a CVA*, 160 NATION 622 (June 1945). The Albeni Falls, Libby, John Day, Priest Rapids, and The Dalles Dams were authorized by the 1950 Act, although the Priest Rapids Dam was ultimately developed by a nonfederal interest (Grant County PUD). See Blumm, *supra* note 6, at 235–36, 241.

174. See *supra* note 123. The CVA’s prospects were heavily influenced by inconsistent forecasts. The Department of the Interior, which favored the CVA, projected considerable power shortages and called for immediate action, while those who were not CVA advocates tended to forecast a less bleak future. Power shortages in the winter of 1948–1949, the second winter in a row in which power was short, while not severe enough to pass CVA legislation, contributed to the public’s fear that energy shortages would lead to depression. C. GOODWIN, *supra* note 142, at 184.

175. One of the principal reasons for the failure of CVA legislation was the departure of its strongest proponents, Secretary Julius Krug and Assistant Secretary Girard Davidson, a former BPA General Counsel, from the Interior Department. CVA opponents, chiefly private utilities, charged that the legislation would lead the country down the road to socialism. They also contended that CVA was unneeded because the Great Depression had passed, because the Pacific Northwest did not have the same kind of “homogeneous problems” as the Tennessee Valley, and because Keynesian economics had demonstrated that economic recessions could be combatted with fiscal policies other than public works spending. See C. GOODWIN, *supra* note 142, at 183–84.

176. See, e.g., BPA HISTORY, *supra* note 20, at 162 (noting that because of BPA’s “persistent efforts” 11 dams were under construction in 1953); *id.* at 179–81 (describing the search for upstream storage in the Upper Columbia Basin); C. GOODWIN, *supra* note 142, at 186 (describing the 1950 Report of the Water Resource Policy Commission, which recommended, inter alia, constructing water projects in advance of power trends).

177. Like World War II, the Korean conflict generally reduced appropriations for public power, a welcome development as far as the private utility industry was concerned. However, the Interior Department complained that reduced appropriations were inappropriate because, in contrast to the pre-war era, there was no longer any unused capacity. C. GOODWIN, *supra* note 142, at 189.

178. BPA HISTORY, *supra* note 20, at 159–60. The Korean conflict also led the federal government to encourage the siting of new aluminum plants to assist in the defense effort. For example, the Harvey Aluminum plant at The Dalles, Oregon, was lured to the region in 1952. W. RODGERS, *supra*

process led to a long struggle to place BPA revenues on a self-financing basis.¹⁷⁹ Wartime power shortages also led to recommendations that BPA be given “purchase authority,” with which it could support the development of thermal plants to “firm up” uncertain hydroelectric supplies, and to a one-year experiment with “median water year” planning, issues that would resurface in the 1970's and 1980's.¹⁸⁰

IV. THE PARTNERSHIP YEARS

The inauguration of Dwight Eisenhower as President in January 1953 had important effects on the development of the hydroelectric system. Rejecting the federal role as project developer, the Republicans authorized no new federal projects. Instead, the federal government backed off from planned developments on the mid-Columbia and middle Snake in favor of nonfederal projects. However, despite the lack of new projects, the federal hydroelectric system continued to grow throughout the Eisen-

note 133, at 166–67. Such plants profited not only from government-supplied tax breaks and cheap power, but also, in some cases, from delaying installation of air pollution devices to control fluoride emissions until judicially compelled to do so. *See Rencken v. Harvey Aluminum, Inc.*, 226 F. Supp. 169 (D. Or. 1963) (ordering the installation of electrostatic precipitators). *See also Reynolds Metals Co. v. Yturbe*, 258 F.2d 321 (9th Cir. 1958) (affirming an award of damages), *cert. denied*, 358 U.S. 840 (1958); W. RODGERS, *supra* note 133, at 164–65 (discussing a 17-year legal fight between a cattle rancher and the Reynolds Metal plant in Troutdale, Oregon); *id.* at 168–71, 184–88 (describing the aluminum industry's influence over state and federal regulators).

179. Congress finally granted self-financing authority to BPA in the 1974 Columbia River Transmission Act, Pub. L. No. 93-454, 88 Stat. 1376 (codified as amended at 16 U.S.C. §§ 838–838k (1976 & Supp. V 1981)). BPA HISTORY, *supra* note 20, at 256.

180. *See BPA HISTORY*, *supra* note 20, at 136 (median water year planning during 1950); *id.* at 182–87 (describing BPA's efforts to obtain “public utility responsibility” under which it would be obliged to meet all regional power needs); C. GOODWIN, *supra* note 142, at 181 (coal plants to supplement hydropower). Except in 1950, hydroelectric operations have been premised on “critical water year planning,” which assumes worst case streamflow conditions, rather than average water year conditions, will occur. Under critical water year planning, reservoir levels are held higher than under median water planning. The result is reduced average hydropower production, but greater reliability in low water years. For a discussion of critical water year planning and system operations, see NATURAL RESOURCES LAW INST., 18 ANADROMOUS FISH LAW MEMO, May 1982, at 3–5.

Authority to purchase power on a “short-term” basis (five years or less) to firm up hydropower supplies was conferred upon BPA in the 1974 Columbia River Transmission Act, 16 U.S.C. § 838 (1976 & Supp. V 1981); long term purchase authority was withheld until the 1980 Pacific Northwest Electric Power Planning and Conservation Act, 16 U.S.C. § 839 (Supp. V 1981), although BPA's practice of “net billing” plants in the late 1960's and early 1970's was tantamount to purchase authority. For a variety of perspectives on BPA's purchase authority, see Cavanagh, *The Pacific Northwest Power Planning (and Thermal Power Plant Relief) Act*, 4 U. PUGET SOUND L. REV. 27 (1980); Luce & McLennan, *Acquisition of Energy Resources Under the Pacific Northwest Electric Power Planning and Conservation Act: A Look to the Future*, 5 U. PUGET SOUND L. REV. 61 (1981); Michie, *Impacts of the Pacific Northwest Electric Power Planning and Conservation Act on the Development of Energy Sources in the Pacific Northwest: An Analysis of the Resource Acquisition Priority Scheme*, 4 U. PUGET SOUND L. REV. 299 (1981).

hower years as previously authorized projects were completed. Moreover, the proliferation of nonfederal projects prompted greater coordination to increase system reliability.

A. *The Reverse Yardstick*

Like its successor thirty years later, the Republican administration of 1953 emphasized marketplace economics and sought to reduce the role of the federal government.¹⁸¹ In his 1953 State of the Union Message, the newly-elected president asserted that “[t]he best natural resources program for America will not result from exclusive dependence on Federal bureaucracy. It will involve a partnership of State and local communities, private citizens, and the Federal Government, all working together.”¹⁸²

That the new partnership philosophy was a product of the new Administration’s close ties with the private utility industry was apparent almost immediately. Philosophically opposed to having the nation’s taxpayers subsidize rates in geographically favored locations like the Columbia and Tennessee River Valleys,¹⁸³ the Administration took swift steps to eliminate pressure to create public power systems. For example, in June 1953 Eisenhower’s Interior Secretary Douglas McKay terminated construction of a BPA transmission line in southwestern Oregon and sold the right-of-way to a private utility.¹⁸⁴ Three months later, in an effort to reduce rate disparities, the Interior Department announced that any federally produced power not committed to public utilities in long term contracts would be sold to private utilities on a long term basis. Consequently, BPA negotiated twenty-year contracts with a number of private power companies, assuring them of access to low-cost hydropower until 1973, a result public power partisans branded “the reverse yardstick.”¹⁸⁵

181. William Barber lists four basic premises of Eisenhower Administration energy policies: (1) a greater role for the private sector in the economy; (2) a preference for state and local government as government units closest to the people; (3) federal action grounded on sound business principles; and (4) federal neutrality concerning regional competition. C. GOODWIN, *supra* note 142, at 208. These premises led to a distrust of public power agencies such as BPA and TVA, and also to authorization of private energy development in the nuclear energy field. *See id.* at 209–10.

182. State of the Union Message by President Dwight D. Eisenhower (Feb. 2, 1953), *quoted in* BPA HISTORY, *supra* note 20, at 189. The Interior Department’s power policy statement, issued in August of 1953, made it clear that this partnership would involve a reduced federal role, and that additional generating capacity should be financed not by the federal treasury, but by private, state, and local funds. Eisenhower reiterated this policy statement in his speech dedicating the McNary Dam in 1954, stating that the federal government should not be expected to meet all electric demands and warning that federal power led to centralization and monopoly control that was inimical to individual freedom. C. GOODWIN, *supra* note 142, at 269–70.

183. C. GOODWIN, *supra* note 142, at 210.

184. *See* BPA HISTORY, *supra* note 20, at 193.

185. *Id.*

B. Nonfederal Project Development

Given the Republicans' antipathy toward federal intervention and public power, it is not surprising that they quickly rejected a 1952 recommendation of the Truman-appointed National Security Resources Board for increased federal funding of new hydroelectric projects.¹⁸⁶ In fact, Secretary McKay blamed electric shortages in the Pacific Northwest on the existence of federal power, not on a shortage of it.¹⁸⁷ The Eisenhower Administration chose to let private utilities determine whether new projects should be constructed, restricting new federal developments to situations where power needs were beyond the capabilities of local utilities.¹⁸⁸ Spurred by favorable tax laws and increased demand from defense industries in response to the Korean crisis,¹⁸⁹ nonfederal generating capacity in the Northwest nearly quadrupled during the 1950's.¹⁹⁰

Two important areas of nonfederal development were on the mid-Columbia above Hanford and on the Snake above Hells Canyon. Federal development of both reaches was envisioned in the 1948 revision to the Corps' "308" report.¹⁹¹ However, in early 1953 the Interior Department discontinued opposition to the Idaho Power Company's application to develop the middle Snake.¹⁹² Although public power advocates challenged the private utilities' plans before the Federal Power Commission, the courts, and Congress, the FPC's decision to license three dams was affirmed in 1956.¹⁹³ On the mid-Columbia, after Congress revoked federal authorization of the Priest Rapids Dam in 1954,¹⁹⁴ the FPC licensed four nonfederal projects to three Washington public utility districts,¹⁹⁵ thus

186. C. GOODWIN, *supra* note 142, at 207-09.

187. *Id.* at 270 (citing *Discussion of Budget Circular A-47 and the Related Power Partnership Principles: Hearing before the House Comm. on Interior and Insular Affairs*, 84th Cong., 1st Sess. 43 (1955) (statement of Douglas McKay, Secretary of the Interior)).

188. C. GOODWIN, *supra* note 142, at 209.

189. Defense-oriented projects that received Defense Electric Power Administration Certificates could write off about 65% of project costs against corporate income taxes over five years. See BPA HISTORY, *supra* note 20, at 192. As a corollary, the government had begun to cut funding for federal water projects even before Eisenhower's election. *Id.* at 192. However, appropriations for BPA construction and operations did not begin to fall until 1953. *Id.* at 160, 196.

190. Nonfederal capacity, which was 2 million kilowatts in 1953, grew by late 1960 to 7.5 million kilowatts completed or under construction. C. GOODWIN, *supra* note 142, at 273.

191. H.R. DOC. NO. 531, 81st Cong., 2d Sess., Appendix I, 1482-90 (1950).

192. See BPA HISTORY, *supra* note 20, at 192.

193. *In re Idaho Power Co.*, 14 F.P.C. 55, 71-82 (1955) (FPC decision to license the dams); *National Hells Canyon Ass'n v. Federal Power Comm'n*, 237 F.2d 777 (D.C. Cir. 1956) (subsequent unsuccessful attempt to have FPC's decision reversed), *cert. denied*, 353 U.S. 924 (1957).

194. Priest Rapids Dam Act, ch. 589, 68 Stat. 573 (1954).

195. Licenses were issued to the Grant County PUD to construct the Priest Rapids and Wanapum Dams, Order Issuing License, 14 F.P.C. 1067 (1955), to the Chelan County PUD to construct the Rocky Reach Dam, Order Issuing License, 16 F.P.C. 736 (1956), and to the Douglas County PUD to construct the Wells Dam, Order Issuing License, 28 F.P.C. 128 (1962). Chelan County PUD's Rock

avoiding another public-versus-private battle. In fact, construction of the four mid-Columbia dams ushered in a new era of cooperation between public and private utilities. Private utilities supplied necessary capital by signing long term contracts to purchase the electric output from the dams; public utilities, which enjoyed an FPC licensing preference, owned and operated the dams, financing construction with low-interest, tax-exempt bonds.¹⁹⁶ Thus, withdrawal of the federal government as project developer induced the kind of public-private joint ventures that would characterize thermal plant development a decade later.

Although no federal projects were initiated during the Eisenhower years, the federal partner was not inactive. Congress continued to appropriate money to construct previously authorized projects and to extend BPA lines to rural areas.¹⁹⁷ However, the boom in nonfederal projects, coupled with an economic recession and a poor aluminum market, reduced BPA power sales in the late 1950's.¹⁹⁸ Reduced power sales produced BPA deficits and a power surplus,¹⁹⁹ a situation that would have an important influence on policymakers in the 1960's.

C. *Wheeling*

The power partnership of the 1950's produced a diverse system of federal and nonfederal projects linked by BPA's transmission line grid. With increasing amounts of nonfederal power coming on line, the BPA grid offered utilities a potential means of transmitting their new power supplies to markets without having to construct new lines. This presented the question whether BPA had the authority to transmit, or wheel,²⁰⁰ power

Island Dam, the Columbia River's first mainstem dam, was originally licensed by the Federal Power Commission in 1930 over the objections of commercial salmon fishing interests. *See* Blumm, *supra* note 6, at 229 n.77. A new license for the dam, issued by the Federal Energy Regulatory Commission (successor to the Federal Power Commission) on May 13, 1981, has been challenged by the Yakima Indian Nation, the National Marine Fisheries Service, and the National Wildlife Federation because it allegedly failed to include fish and wildlife protective provisions. *National Wildlife Federation v. FERC*, No. 82-7562 (9th Cir. filed Sept. 29, 1982). *See* NATURAL RESOURCES LAW INST., 20 ANADROMOUS FISH LAW MEMO, Jan. 1983, at 14-15; 2 NORTHWEST CONSERVATION ACT REPORT, No. 5, March 4, 1983, at 6-7.

196. K. LEE, D. KLEMKA & M. MARTS, *supra* note 11, at 53.

197. Federal capacity, including projects under construction, increased from 2.6 to eight million kilowatts during the Eisenhower years. C. GOODWIN, *supra* note 142, at 273; *cf.* BPA HISTORY, *supra* note 20, at 200 (federal capacity (nameplate rating) increased from 2.46 million kilowatts in June 1952, to six million kilowatts in June 1960; during this period, BPA transmission grid expanded from approximately 5000 to 8000 circuit-miles).

198. BPA HISTORY, *supra* note 20, at 199-200.

199. *Id.*

200. "Wheeling" is transmission of power for another party, usually pursuant to long term contracts. *Id.* at 204.

for others. The answer, and how it was supplied, says a good deal about BPA, its relationship with Congress, and its emerging regional role.

The 1937 Bonneville Project Act²⁰¹ did not address the wheeling issue and it is likely that many of its supporters would have opposed wheeling since such cooperative arrangements were not characteristic of that era. Moreover, in the 1930's, the public power movement had more ambitious goals than a peaceful coexistence with private utilities.²⁰² However, in 1940 BPA General Counsel, Alan Hart, concluded that BPA could transmit power for private companies because, by charging utilities for the use of excess line capacity, BPA could reduce the cost of public power.²⁰³ Despite lack of clear congressional direction, Hart's opinion was affirmed in two opinions of the Regional Solicitor in 1955 and 1956 expressing BPA's willingness to wheel power from two public utility-owned dams.²⁰⁴ In 1957, Congress appropriated money to construct two BPA lines principally for wheeling,²⁰⁵ and a committee report agreed with the Solicitor that BPA possessed the authority to wheel nonfederal power.²⁰⁶ But it was not until 1974, nearly twenty years after large-scale wheeling began, that Congress expressly authorized BPA wheeling.²⁰⁷ Wheeling was necessary to realize the power partnership envisioned by the Eisenhower Administration. Wheeling also supplied an increasingly important source of BPA revenues. Yet this practice of relying on legal opinions of the Solicitor and statements of Appropriation Committees would lead BPA to construe expansively its authority in the 1960's, resulting in what became known as its Hydro-Thermal Power Program.

Whether legislatively authorized or not, wheeling produced substantial regional benefits. By establishing region-wide transfers, wheeling induced coordinated operations, reduced the risk of short term shortages, and, perhaps most importantly, supplied electric reserves without the cost

201. 16 U.S.C. § 832 (1976); *see supra* notes 117–24.

202. *See supra* part IIB.

203. BPA HISTORY, *supra* note 20, at 203–04.

204. *Id.* at 204.

205. Public Works Appropriation Act of 1958, Pub. L. 85-167, 71 Stat. 416 (1957).

206. S. REP. NO. 609, 85th Cong., 1st Sess. 38–39 (1957). On the other hand, the House Appropriations Committee thought that BPA should obtain express authorization for wheeling before committing funds to the lines. H.R. REP. NO. 552, 85th Cong., 1st Sess. 20 (1957). The Senate Committee disagreed, supporting the Regional Solicitor's opinion that the language in section 2(b) of the Bonneville Project Act (authorizing transmission lines for "interconnection and interchange of electric energy" between Bonneville and other federal projects and public power systems) was sufficient legislative authority to construct lines for wheeling. S. REP. NO. 609, *supra*, at 38–39. *See* BPA HISTORY, *supra* note 20, at 202, 205.

207. The Federal Columbia River Transmission System Act, 16 U.S.C. §§ 838g & 838h (1976), expressly authorized BPA wheeling, but required that wheeling charges reflect an equitable allocation of costs and be approved by the Federal Power Commission. BPA HISTORY, *supra* note 20, at 206.

of constructing additional generating units.²⁰⁸ In short, wheeling increased region-wide reliability and encouraged nonfederal water project developments by eliminating the need for a good deal of transmission line construction. As a result, by the close of the partnership years, BPA had assumed a central role in both public and private utility planning and operations. This role was to expand far beyond power marketing in the 1960's.

V. THE GOLDEN AGE

The 1960's, BPA's "golden age," brought significant changes to the Northwest's hydroelectric system. The decade began with BPA financial deficits and power surpluses. But these surpluses were soon dissipated through a doubling of industrial power sales. The storage capacity of the system was also doubled when the Columbia River Treaty was ratified, culminating twenty years of negotiation and study. The Treaty spawned numerous contractual agreements between BPA and its customers, increasing coordinated system operations and interregional connection. Finally, the region's first large commitment to thermal power was made when cogeneration facilities were added to the Hanford New Production Reactor.

A. *Doubling Industrial Power Sales*

As previously observed,²⁰⁹ in the late 1950's a soft economy and a proliferation of nonfederal power projects left BPA with a surfeit of power. A series of budget deficits evaporated the agency's accumulated surplus and jeopardized its ability to fulfill its repayment obligations.²¹⁰ Administrator Charles Luce saw three possible courses for action: (1) modify repayment schedules, (2) increase power sales, or (3) raise rates.²¹¹ Because Luce felt that a rate increase would impair regional economic growth, he emphasized the other two alternatives. He adopted a

208. BPA HISTORY, *supra* note 20, at 203, 206-07 (noting that wheeling revenues grew from \$4.4 million in 1965 to \$25.5 million in 1978).

209. See *supra* text accompanying note 199.

210. Section 7 of the 1937 Bonneville Project Act (16 U.S.C. § 832f (1976)) requires BPA to set rates sufficient to recover the cost of producing and transmitting electricity, including amortizing capital investment over a reasonable number of years. Between fiscal years 1957 and 1963, a \$79 million cumulative BPA surplus dwindled to less than \$3 million, and a cumulative deficit of \$20 million was forecasted for 1965. See U.S. GENERAL ACCOUNTING OFFICE, POLICIES GOVERNING THE BONNEVILLE POWER ADMINISTRATION'S REPAYMENT OF FEDERAL INVESTMENTS NEED REVISION 2-4 (1981) [hereinafter cited as 1981 GAO REPORT].

211. 1981 GAO REPORT, *supra* note 210, at 4.

new repayment policy,²¹² and, reversing Republican policy, doubled industrial power sales.²¹³ As a result, Luce was able to defer BPA's first rate increase in twenty-seven years until 1965 and to limit it to less than three percent.²¹⁴

While this strategy kept Northwest electric rates far below rates in other regions of the country, it resulted in a repayment policy which the General Accounting Office has criticized as inefficient and probably unfair.²¹⁵ Perhaps more significantly, increased industrial sales made the prospective power shortfalls appear to be imminent. Consequently, increased industrial sales helped to spur interest in expanding system capacity.

B. *The Columbia River Treaty*

The most obvious means of increasing system capacity is to regulate streamflows in order to maximize use of power generators. Because of the great variations in Columbia Basin flows²¹⁶ without significant storage capability, in high water years a large percentage of streamflows must be spilled around run-of-the-river dams, thus producing no power. On the other hand, in low flow years there is not enough water to maximize power output. These realities produced longstanding interest in Upper Basin storage projects.²¹⁷ Since thirty percent of the Columbia's stream-

212. *Id.* at 4-6 (describing the substitution of fixed repayment schedules for a "repayment study concept" based on hypothetical forecasted revenues and costs).

213. BPA HISTORY, *supra* note 20, at 215, 268. Eisenhower's Undersecretary of the Interior, Ralph Tudor, ordered BPA to stop promoting industrial sales in 1953. In addition, Assistant Interior Secretary Fred Aandahl ordered BPA to issue 20-year contracts to private utilities, effectively foreclosing new industrial contracts during the 1950's. *Id.* at 267. *See supra* text accompanying note 185.

214. *Id.* at 214; 1981 GAO REPORT, *supra* note 210, at 5 (Administrator's contention that repayment policy changes and increased power sales helped to avoid a possible 1965 rate increase of 30%).

215. The GAO found BPA's repayment policies to be confusing, unreliable, costly, and time-consuming. It also questioned whether the policies imposed unsanctioned burdens on federal taxpayers by amortizing recent, high interest-bearing investments first (deferring payment of older debts until the end of the repayment period) and allowing cumulative repayment decreases. 1981 GAO REPORT, *supra* note 210, at 9-12. Between 1970 and 1979, BPA made net repayments of \$0. Whereas prior to the elimination of repayment schedules, Bonneville had applied more than 36% of its revenues to repayment, after 1965, the agency applied only about 7% of its revenues to repayment. *Id.* at 8.

216. The Columbia's record high flows are 34 times higher than its record low flows. BPA HISTORY, *supra* note 20, at 180.

217. Between 1927 and 1944, 11 applications for development of the Kootenai River were submitted to the International Joint Commission, created by the 1909 Boundary Waters Treaty to resolve boundary disputes between Canada and the United States. *See Johnson, The Canada-United States Controversy Over the Columbia River*, 41 WASH. L. REV. 676, 711-12 (1966) (containing a thorough analysis of the background, negotiations and issues of the Columbia River Treaty). The disastrous floods of 1948 prompted the Corps of Engineers to recommend upstream storage projects in its re-

flows originate in Canada, it is not surprising that studies of potential joint Canadian-U.S. development were initiated in 1944.²¹⁸ Fifteen years of technical studies and legal and policy debates ensued.²¹⁹

The principal stumbling block to a bilateral agreement on Upper Basin development concerned whether Canada should be entitled to a portion of the downstream power production and flood control benefits in the United States, and, if so, what share.²²⁰ United States resistance to the concept of downstream benefits precluded an agreement during the 1950's. Eventually, when Canada indicated it was prepared to proceed with an alternative, unilateral development plan on the Peace River,²²¹ the United States, perhaps also influenced by mounting BPA deficits,²²² agreed to share downstream benefits on an equal basis.²²³ This agreement led to the signing of the Columbia River Treaty on January 17, 1961, only days before the end of the Eisenhower Administration.²²⁴ However, a dispute between the British Columbia provincial government and the Canadian federal government over who was to pay for the storage projects and

vised "308" report of that year. Blumm, *supra* note 6, at 235; BPA HISTORY, *supra* note 20, at 227-30.

218. Responsibility for these studies was given to the International Joint Commission. Johnson, *supra* note 217, at 712; Utton, *The Columbia River Treaty and Protocol*, 1 LAND & WATER L. REV. 181, 182-83 (1966); see also Sewell, *The Columbia River Treaty and Protocol Agreement*, 4 NATURAL RESOURCES J. 309, 313-14 (1964) (discussing the Commission's study and proposals).

219. See Johnson, *supra* note 217, at 713-36. For Canadian perspectives, see N. SWAINSON, CONFLICT OVER THE COLUMBIA. THE CANADIAN BACKGROUND TO AN HISTORIC TREATY (1979), and Cohen, *Some Legal and Policy Aspects of the Columbia River Dispute*, 36 CANADIAN B. REV. 25 (1958).

220. The issue whether the United States owed downstream benefits to Canada first arose in 1951 when the U.S. applied to the International Joint Commission to construct the Libby Dam. The United States argued that under Article II of the 1909 Boundary Waters Treaty, monetary compensation, but not a share of downstream benefits, was available for damage done to Canada. See Boundary Waters Treaty, Jan. 11, 1909, United States-Great Britain, art. X, 36 Stat. 2448, T.S. No. 548. However, Canada refused to permit construction of the dam, and, in fact, employed the U.S. arguments in developing its own plans to unilaterally divert Columbia flows into the Fraser River. See Johnson, *supra* note 217, at 713-26.

221. See Johnson, *supra* note 217, at 726-27.

222. "From fiscal year 1958 through fiscal year 1962 Bonneville's annual deficits on a cost accounting basis totaled \$47,539,822. During the same period, Bonneville spilled water which, if put through its turbines and sold as electric power and energy at Bonneville's standard rates, would have produced more than \$149,000,000 additional revenue." Luce & Kaseburg, *supra* note 7, at 255 n.7 (citing 1958-62 BONNEVILLE POWER ADMINISTRATION ANN. REP.).

223. In effect, the agreement adopted the equitable apportionment doctrine, formulated by the United States Supreme Court to decide interstate water rights disputes. The agreement rejected the 1896 Harmon Doctrine, which sanctioned diversions by upstream nations over the protests of downstream nations. See 21 Op. Att'y Gen. 274, 281-82 (1895) (Harmon Doctrine); Johnson, *supra* note 217, at 696-98, 718-25, 758-59, (discussing Harmon Doctrine and equitable apportionment concept).

224. Columbia River Treaty, Jan. 17, 1961-Sept. 16, 1964, United States-Canada, 15 U.S.T. 1555, T.I.A.S. 5638.

where the power produced from these projects would be marketed prevented ratification of the Treaty until 1964.²²⁵

C. Aftermath of the Treaty: System Coordination and the Intertie

The Treaty authorized construction of four large storage projects, doubling the Basin's storage capacity.²²⁶ Just as important, the Treaty induced a number of 1964 agreements which increased interconnected system operations and enhanced BPA's role as regional power marketer.

The first series of agreements was prompted by the fact that British Columbia did not need the power produced by the Treaty projects. As a result, in order to finance project construction, the Province sold its power rights to a consortium of public utilities, the Columbia Storage Power Exchange.²²⁷ The Exchange then sold half of its Canadian entitlement to four private utilities and half to forty-one public utilities.²²⁸ Each utility, in turn, transferred these variable entitlements to BPA in exchange for firm power, especially for firm peaking capacity.²²⁹ The result was increased pressure on BPA to manipulate streamflows to meet peak power demands.²³⁰

Maximizing the downstream benefits produced by the Treaty storage projects required increased coordination among federal and nonfederal project operators. Voluntary cooperation through the Northwest Power Pool had long been a regional characteristic, but the Treaty's downstream benefits principle was premised on a fully coordinated system. Consequently, shortly after the Treaty was ratified in 1964, BPA, the Corps of Engineers, and the region's utilities negotiated a long term agreement establishing detailed operating criteria, power exchange principles, and allocation of downstream benefits. This Pacific Northwest Coordination

225. British Columbia wanted to finance simultaneous development of the Columbia and Peace Rivers by selling the power produced from the Columbia River projects to the United States, while the Canadian federal government wanted the Canadian power entitlement used in Canada to promote industrial growth. The Province prevailed, largely because it eliminated opposition by expropriating two large private power companies. See Johnson, *supra* note 217, at 746-49; Sewell, *supra* note 218, at 319-23.

226. DEIS, *supra* note 17, Appendix A, at I-11 to -15. This additional storage capacity enhanced the productive capacity of downstream projects by an estimated 1900 average megawatts. K. LEE, D. KLEMKA & M. MARTS, *supra* note 12, at 54.

227. Because the Exchange was a non-profit corporation, the \$314 million in revenue bonds it sold to purchase the Canadian entitlement was tax exempt. Two hundred fifty-four million dollars was paid to British Columbia to purchase its downstream benefits for 30 years. BPA HISTORY, *supra* note 20, at 235-36.

228. *Id.* at 235.

229. See DEIS, *supra* note 17, Appendix A, at I-28 to -30.

230. *Id.* at I-30. Increased manipulation of streamflows to meet peak power loads adversely affected anadromous fish runs. See Blumm, *supra* note 6, at 243-47, 251.

Agreement formalized "the one-utility concept" under which system operations are coordinated to maximize hydropower production.²³¹

Marketing the additional power resulting from the Treaty required another agreement. Power sales to California, long considered a potential solution for Northwest electric surpluses,²³² were given impetus by technological innovations²³³ and by the Kennedy Administration, which saw regional interties as the basis of a fully coordinated national power network.²³⁴ The Treaty-produced power surfeit in the Northwest and the electric loads in populous California seemed to be a convenient marriage.²³⁵ However, expanding BPA's service area outside the region alarmed industrial customers, who feared that competition from additional preference customers would deprive them of the cheap power which had lured them to the region.²³⁶ The result was the enactment of the 1964 Northwest Regional Preference Act,²³⁷ which limited BPA power exports to surplus power for which there was no demand in the Northwest.²³⁸ Almost simultaneously with passage of the Preference Act, Congress appropriated \$45 million to fund the federal portion of intertie lines that would in 1967 connect Los Angeles with the Northwest.²³⁹

231. Bonneville Power Administration, Agreement for Coordination of Operations Among Power Systems of the Pacific Northwest (1964) (copy on file with the *Washington Law Review*) [hereinafter cited as Coordination Agreement]. See J. Jolliffe, C. Mohler & L. Dean, The Pacific Northwest Coordination Agreement 5 (paper presented at the Institute of Electric and Electronics Engineers Winter Power Meeting, Jan. 31–Feb. 5, 1965) (copy on file with the *Washington Law Review*). The 1964 Coordination Agreement replaced short term agreements negotiated annually beginning in 1961. One important innovation in the Coordination Agreement provides for federal payments for the downstream benefits provided to federal projects by upstream storage projects. See BPA HISTORY, *supra* note 20, at 218–19. For an overview of operational planning under the Coordination Agreement, see Blumm, *supra* note 6, at 249–56.

232. The idea of an intertie from Vancouver, B.C., to Los Angeles was first suggested by University of Washington Professor Carl Magnusson in 1919. It received serious consideration after World War II when electric shortages in California required a 20% curtailment in Pacific Gas and Electric Company's electric loads for several months. BPA HISTORY, *supra* note 20, at 237–38.

233. Economically viable transmission distance expanded from 300 miles in the early 1950's to 1500 miles by the early 1960's. See Luce & Kaseburg, *supra* note 7, at 253–56.

234. See C. GOODWIN, *supra* note 142, at 333–34.

235. For example, in the late 1950's, the electricity required to pump northern California water south over the Tehachapi Mountains, pursuant to the California water plan, was estimated to be the equivalent of the output of the Grand Coulee Dam. Luce & Kaseburg, *supra* note 7, at 254.

236. *Id.* at 256–57. Private utilities also felt threatened by public utilities in California because of the preference clause in the Bonneville Act. 16 U.S.C. § 832c(b) (1976); see K. LEE, D. KLEMKA & M. MARTS, *supra* note 12, at 55–56.

237. Pub. L. No. 88-552, 78 Stat. 756 (1964) (codified at 16 U.S.C. §§ 837–837h (1976)).

238. For a detailed analysis of the origins and provisions of the 1964 Act, see Luce & Kaseburg, *supra* note 7.

239. On August 14, 1964, two and one half weeks before President Johnson signed the Preference Act, Congress approved the Public Works Appropriation Act of 1965, Pub. L. No. 88-511, 78 Stat. 682 (1964). BPA HISTORY, *supra* note 20, at 244–45. Because intertie lines in California were constructed by private utilities, public power partisans feared that these utilities would monopolize

Thus, the beneficiaries of the Canadian Treaty were not confined to the Northwest.

Increased storage capacity also precipitated installation of generators at downstream projects to meet peak load demands. Nearly every dam downstream of the Treaty projects has added generators since 1964,²⁴⁰ beginning with authorization of a third powerhouse at Grand Coulee in 1966.²⁴¹ Attesting to the growth of the system is the fact that some of the strongest supporters of the new Coulee powerhouse were private utilities in California, who would be provided additional low-cost peaking capacity once the Intertie lines were completed.²⁴² Increasing reliance on hydropower to meet peak demands would soon lead the region to seek to satisfy its baseload demands through construction of thermal power plants.

Thus, the legacies of the Columbia River Treaty were many and varied. It resulted in greater coordination of system operations, led to California power sales, and enhanced the peaking capacity of the hydropower system. However, by harnessing the spring freshet upon which anadromous fish depended for transportation to the ocean, the Treaty projects and their aftermath contributed greatly to a precipitous decline of Upper Basin fish runs.²⁴³ Finally, in negotiating the Treaty and the subsequent Coordination Agreement, and in lobbying for the Preference Act, intertie authorization, and appropriations for project modifications, BPA emerged from its partnership-era passivity. Although lacking the authority of TVA, BPA possessed the administrative expertise and fiscal resources to function as the region's central planning agency, so long as it had the confidence of its utility and industrial customers. This was a role which would become increasingly important as the region began to look to thermal power.

D. *The Hanford Agreement*

As with the idea of constructing upstream storage, the notion of mixing thermal power with hydropower to meet increased electric demands was long considered by regional power planners. In fact, the electric shortages accompanying the Korean War led Representative Henry Jackson to introduce legislation in 1951 that would have enabled BPA to build and

their use. As a result, the Preference Act declared the Intertie to be a common carrier, guaranteeing access to public power agencies. K. LEE, D. KLEMKA & M. MARTS, *supra* note 12, at 58.

240. For charts depicting projects under construction in 1976, see DEIS, *supra* note 17, Appendix A, at I-35 to -36.

241. See BPA HISTORY, *supra* note 20, at 247-51.

242. *Id.* at 248.

243. See, e.g., Blumm, *supra* note 6, at 217-21, 245-47.

operate coal plants in southwestern Oregon.²⁴⁴ Four years later, Congress asked the Corps of Engineers to revise its "308" report on the Columbia River and its tributaries, and specifically requested the Corps to consider a hydro-thermal power system.²⁴⁵ In 1958, the Corps reported that feasible hydroelectric sites would be exhausted by 1965, and that future load growth would have to be met with thermal power.²⁴⁶ Such a mixed system could advantageously use the flexibility of hydropower to meet peak load demands, while thermal power could serve base loads.²⁴⁷

The first thermal increment was a spillover from the defense complex at Hanford.²⁴⁸ In 1958, spurred by the Russian Sputnik threat, Congress authorized a new plutonium-producing reactor for Hanford.²⁴⁹ The reactor was designed to permit generation of electricity from waste heat. However, the Eisenhower Administration opposed any additional federally produced power, which, under the preference clause, would go to public power agencies.²⁵⁰ Even after the Kennedy Administration rejected the limited federal role of the partnership years, private power interests convinced Congress to withhold funds necessary to construct cogeneration facilities.²⁵¹

A solution to the statement was proposed by the Washington Public Power Supply System (WPPSS), a coalition of public utilities which in 1960 initiated construction of the Packwood Lake Project.²⁵² Through the

244. H.R. 4963, 82d Cong., 1st Sess., 97 CONG. REC. 8988 (1951). This bill was shelved, partly due to potential conflicts with Tacoma's proposed Cowlitz River dams. BPA HISTORY, *supra* note 20, at 273.

245. BPA HISTORY, *supra* note 20, at 274 (noting that TVA, the Pacific Gas and Electric Company, and Ontario Hydro previously had made the transition to a hydrothermal system).

246. K. LEE, D. KLEMKA & M. MARTS, *supra* note 12, at 66 (citing H.R. DOC. NO. 403, 87th Cong., 2d Sess. (1958)); *cf.* BPA HISTORY, *supra* note 20, at 283-84 (claiming that Northwest hydroelectric potential is only half developed).

247. *See* K. LEE, D. KLEMKA & M. MARTS, *supra* note 12, at 66-68 (noting that in the Northwest, unlike most areas of the country, the cheaper cost resource (hydropower) is used for peaking purposes, while the more expensive resource (thermal power) is employed to meet base loads).

248. The Hanford defense reservation in eastern Washington was founded in 1943 as a site for several plutonium reactors which produced fuel for the atomic bombs that ended World War II. After the War, Hanford continued to grow as the Cold War induced military planners to stockpile nuclear weapons. BPA HISTORY, *supra* note 20, at 221-22.

249. Atomic Energy Commission Appropriations Amendment, Pub. L. No. 85-519, 72 Stat. 358 (1958).

250. Opposition to federally produced, cogenerated power came both from private utilities' national lobbying organization, the Edison Electric Institute, and from coal state interests which feared competition from nuclear power. Kai Lee suggests that Edison's opposition to the cogeneration project was much stronger than the opposition from Northwest private utilities. K. LEE, D. KLEMKA & M. MARTS, *supra* note 12, at 62-63.

251. BPA HISTORY, *supra* note 20, at 223. *See also* DEIS, *supra* note 17, Appendix A, at I-22 to -23.

252. WPPSS was formed as a response to the Eisenhower partnership policy, which caused public utilities to seek alternatives to federal projects in order to meet projected load growth. By pooling

issuance of tax-exempt bonds and exchange agreements with BPA, WPPSS offered what appeared to be a viable financing alternative to direct federal development. However, an end run around congressional approval was blocked when the General Accounting Office ruled that any contracts between WPPSS and the Atomic Energy Commission, which operated the Hanford works, required the consent of Congress.²⁵³ The ensuing congressional debate produced a compromise, suggested by Senator Jackson, in which half of the cogenerated power would be reserved for private utilities and half for WPPSS. In September 1962, President Kennedy signed into law this compromise, which led to the generation of the region's first thermal power in 1966.²⁵⁴

The legacy of the Hanford reactor, however, was larger than the introduction of thermal power. Following congressional authorization, BPA and WPPSS negotiated a financing scheme, popularly known as "net billing," that would form the cornerstone of subsequent thermal plant construction. Under net billing, BPA agreed to purchase the output of the plant, paying for it by issuing credits to participating utilities equal to their construction costs, up to the amount of their annual BPA bills for power and transmission line services.²⁵⁵ By providing for federal purchase of the Hanford plant's planned output, net billing created between WPPSS and BPA a kind of joint venture not unlike the relationship between public and private utilities that made possible the construction of the mid-Columbia dams. This financing scheme would be the fulcrum of what would become known as the Hydro-Thermal Power Program.

VI. THE RISE AND FALL OF THE HYDRO-THERMAL POWER PROGRAM

When the Canada Treaty projects neared completion in the late 1960's, most of the region's large-scale hydroelectric sites were developed. How-

their resources in private holding company fashion, this coalition of public utilities could afford to construct larger projects, lowering costs by taking advantages of economies of scale. And because it was composed of public entities, WPPSS enjoyed the advantage of being able to raise funds through tax-exempt bonds. See K. LEE, D. KLEMKA & M. MARTS, *supra* note 12, at 64. For a brief background of WPPSS and its initial undertaking, the Packwood Lake Project, see 1 WASHINGTON STATE SENATE ENERGY AND UTILITIES COMMITTEE WPPSS INQUIRY, 47TH LEG., CAUSES OF COST OVERRUNS AND SCHEDULE DELAYS ON THE FIVE WPPSS NUCLEAR POWER PLANTS 8-9 (1981). For recent cost estimates, see *infra* note 383.

253. K. LEE, D. KLEMKA & M. MARTS, *supra* note 12, at 64-65.

254. Atomic Energy Appropriations Act of 1962, Pub. L. No. 87-701, 76 Stat 599. See K. LEE, D. KLEMKA & M. MARTS, *supra* note 12, at 65; BPA HISTORY, *supra* note 20, at 224-25. In 1964, the first eight plutonium reactors were retired by President Johnson, leaving only the ninth, the New Production Reactor, operational. *Id.* at 225.

255. In practice, credits were limited to 85% of the utilities' BPA bill. K. LEE, D. KLEMKA & M. MARTS, *supra* note 12, at 80.

ever, the decade that began with power surpluses ended with serious projected deficits. To avoid shortfalls, the region turned to coal and nuclear generated thermal power. The additional costs of thermal power, however, made this transition difficult and controversial. And because of limited BPA authority and limited utility financing, far fewer thermal plants were initiated than originally proposed. This inability to expand the system prompted the movement to obtain a congressional solution in the late 1970's.

A. Phase I

System expansion appeared to be a pressing need in the late 1960's. Beginning in 1967, the long lead time to obtain siting approval for thermal plants doubled BPA's planning horizon from ten to twenty years.²⁵⁶ The expanded time horizon, the doubling of industrial power sales,²⁵⁷ and the forecasting assumptions of steady electric growth²⁵⁸ made power shortfalls seem imminent.

Facing a projected tripling of power loads, the Joint Power Planning Council, a consortium of BPA and over one-hundred public and private utilities, formulated a long-range planning document calling for a \$15 billion, twenty-year program of system expansion. This Hydro-Thermal Power Program was refined a year later into a ten-year program calling for seven thermal plants, additional hydroelectric generators to meet peak load demands, and additional transmission facilities.²⁵⁹ The thermal plants were the fulcrum of the program. However, the federally-financed hydroelectric and transmission facilities were estimated to require \$5 billion of the originally estimated \$7 billion cost of the program.²⁶⁰

The key to the program was the net billing concept. First employed in the acquisition of the Hanford-generating power,²⁶¹ this financing scheme

256. BPA HISTORY, *supra* note 20, at 258. The six-year planning horizon for water resources was instituted in 1931. *See supra* note 105. It was changed to 10 years by BPA in 1955. BPA HISTORY, *supra* note 20, at 258.

257. *See supra* part VA.

258. Electric demand was expected to rise not only because of regional growth, but also from anticipated increases in per capita electric consumption. The region's utilities claimed that these demands should be met by expanding the system rather than through conservation measures. Among the reasons for increased per capita consumption were: (1) increased per capita income resulting in purchase of additional electric consumptive appliances, (2) development and marketing of such appliances, (3) greater use of electricity for space heating, and (4) increased commercial and industrial consumption to improve productivity. *See DEIS, supra* note 17, Appendix C, at II-8.

259. BPA HISTORY, *supra* note 20, at 274-75; FEIS, *supra* note 152, I-16 to -18.

260. K. LEE, D. KLEMKA & M. MARTS, *supra* note 12, at 83.

261. *See supra* note 255 and accompanying text.

made it possible for public utilities, most of which had little equity,²⁶² to commit themselves to thermal plant construction. Net billing minimized short term rate increases by spreading uniform wholesale rate increases among all BPA customers.²⁶³ Moreover, participating utilities not only received credits on their BPA bills, they found ready markets for their construction bonds, because BPA agreed to assume the risk of plant failures, thereby making the bonds regionally insured.²⁶⁴ By enabling BPA to purchase electric "futures," net billing allowed the agency to expand the power system, an authority that Congress never expressly granted it.²⁶⁵

Five years after its initiation, the Hydro-Thermal Program came to an abrupt halt. First, skyrocketing construction costs exhausted BPA's net billing capacity, as thermal plant costs outstripped its wholesale power rates. Quite simply, further credits for additional plants would have exceeded the amount the customers owed BPA.²⁶⁶ Second, a 1972 Internal Revenue Service regulation removed the tax exemption from bonds financing plants, if BPA were to purchase more than twenty-five percent of the plant's output.²⁶⁷ Thus, in late 1973, BPA terminated net billing, effectively ending Phase 1 of the program.²⁶⁸

262. Most of the WPPSS participants are extremely small, relying on BPA for their generating capacity and for transmission services. K. LEE, D. KLEMKA & M. MARTS, *supra* note 12, at 76.

263. Moreover, the full costs of thermal plants were hidden because BPA's rates reflect average system costs; that is, both high cost thermal power and low cost hydropower. Such "melded" rates made increments of thermal power appear to be cheaper than in fact they were. Kai Lee has pointed out that melded rates produce inequities such as making utilities which are not experiencing significant load growth pay for part of the costs of meeting the incremental loads of those which are. *Id.* at 77, 81-82.

264. See Foote, Larsen & Maddox, *supra* note 7, at 843 (explaining provisions in BPA's net billing contract concerning the output of the planned thermal plants).

265. In fact, Congress considered and rejected such authorities at least four times: first, when it enacted the 1937 Bonneville Act, *see supra* part IID; second, when it rejected a Columbia Valley Authority in 1949, *see supra* part IIIE; third, when it rejected Congressman Jackson's proposal to authorize BPA construction of coal plants, *see supra* note 244 and accompanying text; finally, when it rejected Senator Richard Neuberger's proposal to give BPA authority to construct thermal plants in 1958. *See id.*

BPA's legal justifications for net billing were based on advisory opinions from the Interior Solicitor and the General Accounting Office, a letter from a Chairman of a Congressional Subcommittee, and favorable statements during Appropriations Committee hearings. *See DEIS, supra* note 17, Appendix A, at I-20 to -21; *see also* 77 Int. Dec. 141 (1970) (Opinion of the Solicitor approving BPA's net billing contract concerning the Trojan Nuclear Power Plant, largely on the basis of § 2(f) of the Bonneville Project Act, which gives the BPA Administrator the authority to enter into contracts under such terms as he deems necessary to foster the 1937 Act's policies of promoting widespread use at the lowest possible rates); Foote, Larsen & Maddox, *supra* note 7, at 847 n.98 (questioning the legal authority of the program).

266. FEIS, *supra* note 152, at I-16 to -17.

267. *Id.* at I-17.

268. *Id.* *See also* Foote, Larsen & Maddox, *supra* note 7, at 844.

Although it was short-lived, the Phase 1 program's legacies proved to be enduring ones. Construction of seven thermal plants began,²⁶⁹ largely because BPA had secured agreement between public and private utilities on the need for and direction of an integrated plan for system expansion. The centerpiece of the plan—net billing financing—enabled equity-short public utilities to participate, shifted the risks of nonperformance to BPA, and hid the incremental costs of thermal power. However, net billing eventually resulted in steep BPA wholesale rate increases.²⁷⁰ Similarly, many of the environmental costs of the program were not immediately apparent. In particular, unanticipated long-run fisheries costs arose from manipulating Columbia and Snake River flows to meet peak loads.²⁷¹

The financial and managerial aspects of the program were as significant as its ratemaking and environmental consequences. Perhaps most important, the transition to hydropower as a peaking resource required exchange agreements between BPA and utilities. This made federal hydropower a reserve for all of the region's utilities,²⁷² another manifestation that the "one utility" concept was becoming the dominant regional characteristic. BPA, the chief architect of this concept, was unchallenged as regional policymaker²⁷³ until the soaring costs of thermal plants left important regional decisions in the hands of the New York bond market.²⁷⁴ Ironically, the public utilities that became so dependent on the Eastern financial community were originally established to avoid private utility control, which New Dealers viewed as dominated by Eastern holding

269. The seven Phase 1 plants included Pacific Power and Light's Jim Bridger coal plant in Rock Springs, Wyoming; Portland General Electric's Boardman coal plant in Boardman, Oregon; Pacific Power and Light's and Washington Water Power's Centralia coal plant in Centralia, Washington; Portland General Electric's Trojan Nuclear Plant in Rainier, Oregon; and the first three WPPSS nuclear plants in Hanford, Washington. See DEIS, *supra* note 17, Appendix A, at I-37 to -38. The four nuclear plants were net billed, although BPA acquired only 30% of Trojan's output and 70% of WPPSS No. 3. *Id.* at I-39.

270. For example, in 1982 BPA proposed to raise rates an average of 27% for its industrial customers and an average of 73% for its preference customers. I Northwest Conservation Act Report, No. 8, Apr. 16, 1982, at 3.

271. In 1977, BPA admitted it did not know what the effects of increasing peaking operations would be. See K. LEE, D. KLEMKA & M. MARTS, *supra* note 12, at 102-03. See generally Blumm, *supra* note 6.

272. See, e.g., DEIS, *supra* note 17, Part I, at I-10, Appendix C, at II-46 (describing reserves for the region's private utilities).

273. An important BPA policy was the agency's 1971 industrial sales policy, developed as part of the Phase 1 program, which limited new firm power sales to industries until BPA determined that resources were available to serve its preference customers for a reasonable period in the future (i.e., eight years). See DEIS, *supra* note 17, Appendix C, at II-30 to -32. Had this policy been in effect in the 1960's, it is doubtful that BPA would have doubled its industrial sales. See *supra* part VA.

274. See, e.g., Bernstein, *A Nuclear Fiasco Shakes the Bond Market*, FORTUNE, Feb. 22, 1982, at 100.

companies.²⁷⁵ Finally, largely the brainchild of BPA and its customers, the Phase 1 program was formulated almost wholly without public involvement. Although this shortcoming did not undermine the Phase 1 program, it would prove to be the Achilles' heel of its successor.

B. Phase 2

The demise of the Phase 1 program left the region with projected energy shortages and without a plan to add resources. In 1973, in order to avoid power shortfalls,²⁷⁶ BPA terminated sales of firm power to private utilities.²⁷⁷ Deprived of access to low-cost federal hydropower, consumers served by private utilities began to experience significant rate increases.²⁷⁸

Late in 1973, BPA and its customers agreed to a new version of the Hydro-Thermal Power Program, quickly christened Phase 2.²⁷⁹ Designed to produce at least seven additional thermal plants,²⁸⁰ the success of Phase 2 depended on BPA's negotiating expertise rather than its deep pockets. Instead of purchasing the planned output of thermal plants, BPA would act as an agent for its preference customers, negotiating purchase agreements for them with thermal plant developers.²⁸¹ Although this would guarantee project sponsors markets for their power, the sponsors retained the risks of plant delays or unsatisfactory performance, a financing arrangement resembling that employed to construct the mid-Columbia dams during the partnership years.²⁸² However, BPA would exercise some oversight over the performance of project sponsors by acting as "trust agent" for its preference customers.²⁸³

A critical element of the Phase 2 program was the renegotiation of BPA's industrial customer contracts. To guard against short term power shortages, these new contracts would establish a class of power service

275. See BPA HISTORY, *supra* note 20, at 24.

276. In the mid-1970's, BPA forecasted energy deficits every year under low water conditions. DEIS, *supra* note 17, Part I, at II-16.

277. New nonfirm sales, however, continued. K. LEE, D. KLEMKA & M. MARTS, *supra* note 12, at 75.

278. Jackson, *The Pacific Northwest Electric Power Planning and Conservation Act—Solution for a Regional Dilemma*, 4 U. PUGET SOUND L. REV. 7, 12 (1980).

279. See FEIS, *supra* note 152, at I-17 to -18; K. LEE, D. KLEMKA & M. MARTS, *supra* note 12, at 118-19.

280. U.S. Comp. Gen., *Region At the Crossroads—The Pacific Northwest Searches for New Sources of Electric Energy*, Rep. No. EMD-78-76, at 3.13 (Aug. 10, 1978). See DEIS, *supra* note 17, Part I, at II-15, II-20 (list and map of thermal plants).

281. Foote, Larsen & Maddox, *supra* note 7, at 845.

282. See *supra* text accompanying notes 195-96. Perhaps not surprisingly, the 1970's "partnership policy" came while another Republican, Don Hodel, was BPA Administrator.

283. See K. LEE, D. KLEMKA & M. MARTS, *supra* note 12, at 175.

referred to as "industrial firm power," allowing greater interruptibility of industrial loads.²⁸⁴ In effect, the industries would supply insurance reserves against power shortages due to plant delays or unforeseen load growth.²⁸⁵ In return for this lower grade power, the industrial customers would receive credits for such interruptions²⁸⁶ and would be offered new long term contracts, extending their contractual rights into the 1990's.²⁸⁷ Without new contracts, the industries would almost certainly lose their BPA power to preference customers during the shortages forecast for the 1980's.²⁸⁸

The federal role in the Phase 2 program, however, was not simply that of a power broker. Installation of hydroelectric peaking generators and construction of additional transmission lines would remain a federal responsibility. In fact, in order to decrease the financial uncertainties inherent in the congressional appropriation process, BPA sought authority to pay operation and maintenance costs out of its revenues and to finance transmission system additions through bond sales. It received that authority through the 1974 Columbia River Transmission System Act.²⁸⁹ The Act also sought to reduce the risk of power shortages during low water years by authorizing BPA to supplement its power supply through short term power purchases.²⁹⁰ Thus, Phase 2 attempted to meet short term power shortages through a combination of industrial service interruptions and short term power purchases.

But it was Phase 2's reliance on more thermal plants to meet long term shortages that proved to be its undoing. Formulated without any significant public review or assessment of environmental impacts, the pro-

284. One-fourth of the industrial loads was completely interruptible under an industrial sales policy initiated in 1948. See *supra* text accompanying notes 166-67. "Industrial firm" service meant that up to three-fourths of the industrial load could be interrupted if shortages due to plant delays or unforeseen demands were experienced. See DEIS, *supra* note 17, Part I, at II-16.

285. See K. LEE, D. KLEMKA & M. MARTS, *supra* note 12, at 38-41.

286. *Id.* at 41.

287. *Id.* at 120.

288. This did not necessarily mean that the industries would be forced to close. They could purchase power from nonfederal sources; in fact, there was widespread concern that the industries would seek to take advantage of the preference clause by applying to become customers of public utilities. Eighty-five percent of BPA's industrial customers lie in or adjacent to areas served by public utilities. See Jackson, *supra* note 278, at 11.

289. Pub. L. No. 93-454, 88 Stat. 1376 (1974) (codified at 16 U.S.C. §§ 837-838k (1976 & Supp. V 1981)); see DEIS, *supra* note 17, Part I, at II-14. Self-financing also reduced prospects for congressional review of the Phase 2 program.

290. 16 U.S.C. § 838i(b)(6) (Supp. V 1981). However, nothing in the 1974 Act could be interpreted to ratify the Phase 1 "net billing" financing scheme for Phase 2 projects.

gram's first industrial sales contract,²⁹¹ and then the program itself,²⁹² were enjoined for violating the National Environmental Policy Act.²⁹³ Unable to participate in the expansion of the system until it completed a comprehensive environmental impact statement on its role in the Hydro-Thermal Power Program, in 1976 BPA notified its preference customers that after 1983, it no longer would be able to meet their load growth.²⁹⁴ The agency also informed its industrial customers that it was likely that their contracts would not be renewed when they expired in the 1980's.²⁹⁵

291. *Port of Astoria v. Hodel*, 8 Env't. Rep. Cas. 1156 (D. Or. 1975), *aff'd*, 595 F.2d 467 (9th Cir. 1979). BPA offered its first industrial firm contract to the Alumax Pacific Corporation for a new aluminum reduction plant in Umatilla, Oregon. I have suggested that the controversy over the Alumax contract is a suitable vehicle for studying the changing electric power landscape during the 1970's. Blumm, *supra* note 18, at 137 n.148. Professor Rodgers reminds me that the controversy over this contract, signed in 1966 by BPA and Alumax's predecessor, Northwest Aluminum, dates to the 1960's, when BPA incurred the wrath of then Washington Governor Daniel Evans, because the agency failed to involve the state in the decision. The plant, originally proposed for Guemes Island in Puget Sound was blocked largely through the efforts of Seattle attorney John Erlichman, who represented a coalition of local property owners and convinced the State Supreme Court that "executive sessions" of the Skagit County Commissioners, during which they approved the plant, violated due process. See W. RODGERS, *CORPORATE COUNTRY* 167-68 (1973), *citing* *Smith v. Skagit County*, 75 Wn. 2d 715, 453 P.2d 832 (1969).

Stymied by Erlichman's efforts, Northwest sold its contract to American Metal Climax, later Alumax, which attempted to situate the plant in Warrenton, Oregon near Astoria. However, local environmental groups filed suit, alleging violations of the National Environmental Policy and Clean Air Acts. See Foote, Larsen & Maddox, *supra* note 7, at 847, *citing* *Clatsop Environmental Council v. Hodel*, Civ. No. 74-175 (D. Or. 1974). When the Oregon Department of Environmental Quality indicated that the necessary discharge permits would not be forthcoming, the proposed plant site was relocated again, to Umatilla, Oregon, east of the Cascades. The Port of Astoria litigation ensued, blocking deliveries of power until BPA prepared an environmental impact statement on the contract and its relationship to BPA's Phase 2 program. While BPA was preparing this EIS, § 5(d)(1)(C) of the 1980 Pacific Northwest Electric Power Planning and Conservation Act ratified a new long term power sales contract to Alumax if the BPA Administrator determined that he could reasonably acquire sufficient resources to meet the Alumax load. 16 U.S.C. § 839d(c) (Supp. V 1981). BPA finally completed its EIS in 1981. See BONNEVILLE POWER ADMINISTRATION, *ALUMAX FINAL ENVIRONMENTAL IMPACT STATEMENT* (May, 1981). The agency's subsequent contract offer to Alumax was challenged by a coalition of environmental groups because BPA failed to make the requisite finding. That suit was settled when it became apparent that sufficient power would be available to serve Alumax without further commitments to thermal plants. *National Wildlife Federation v. Johnson*, No. 81-7804 (9th Cir. filed Nov. 24, 1981), settlement agreement July 23, 1982 (copy on file with the *Washington Law Review*).

292. *Natural Resources Defense Council v. Hodel*, 435 F. Supp. 590 (D. Or. 1977), *aff'd sub nom.* *Natural Resources Defense Council v. Munro*, 626 F.2d 134 (9th Cir. 1980). Although BPA agreed to perform an EIS on the Hydro-Thermal Power Program as a result of the Port of Astoria litigation, this suit was brought because the agency refused to defer programmatic activities pending completion of the EIS. 435 F. Supp. at 595.

293. 42 U.S.C. § 4331 (1976) (requiring major federal actions significantly affecting the quality of the human environment to be preceded by an environmental impact statement); *see also* 40 C.F.R. §§ 1500-1508 (Council on Environmental Quality's implementing regulations).

294. See Hittle, Larsen, Randall, & Michie, *supra* note 7, at 272-73 & n.161 (citing letter from Administrator Hodel to all BPA Preference Customers, June 24, 1976).

295. See K. LEE, D. KLEMKA & M. MARTS, *supra* note 12, at 135.

The demise of the Hydro-Thermal Program thrust the region into a power crisis induced not only by impending power shortages, but also by rate inequities. Consumers served by private utilities, which had been cut off from BPA firm power in 1973,²⁹⁶ began to experience steep rate increases due to thermal plant costs.²⁹⁷ In 1977 the Oregon state legislature attempted to regain access to low cost hydropower for its private utilities by authorizing the creation of a publicly-owned Oregon Domestic and Rural Power Authority if rate disparities remained in 1979.²⁹⁸ If this authority succeeded in its goal of claiming a share of preference rights for all domestic and rural ratepayers in the state, it would immediately overtax BPA's resources and precipitate a region-wide civil war over federal hydropower entitlements.²⁹⁹

C. *Toward a Congressional Solution*

Revisions to the Bonneville Project Act were considered as early as 1975. The legislation was prompted by BPA's Notice of Insufficiency in June of 1976, coupled with the threat posed by Oregon's Domestic and Rural Power Authority. However, it was not until 1977 that BPA and its customers, through the Pacific Northwest Utilities Conference Committee (PNUCC) drafted legislation to solve the region's energy problems. Senator Jackson introduced the PNUCC bill in September of 1977,³⁰⁰ but neither that bill, nor a less complex successor drafted a year later,³⁰¹ managed to progress very far by the time the Ninety-fifth Congress adjourned in late 1978.³⁰²

An important change to BPA's authorities, however, did occur in 1977. As part of the Carter Administration's national energy program, Congress established the Department of Energy and transferred BPA from the Interior Department to the new department.³⁰³ In doing so, Con-

296. See *supra* text accompanying notes 277-78.

297. For example, Portland General Electric's Trojan Nuclear Power Plant, completed in 1975, resulted in a quadrupling of rates in Portland within three years. K. LEE, D. KLEMKA & M. MARTS, *supra* note 12, at 140.

298. OR. REV. STAT. § 262.115 (1977). See K. LEE, D. KLEMKA & M. MARTS, *supra* note 12, at 131, 165-66.

299. The City of Portland pursued an independent course of action to secure access to low-cost hydropower for its citizens, filing suits alleging that all domestic and rural consumers should have preference rights and that BPA's net billing contracts violated the National Environmental Policy Act. K. LEE, D. KLEMKA & M. MARTS, *supra* note 12, at 172, *citing* City of Portland v. Hodel, Civ. Nos. 77-928, 77-929 (D. Or. 1977).

300. S. 2080, 95th Cong., 2d Sess., 123 CONG. REC. 28552 (1977); H.R. 9020, 95th Cong., 2d Sess., 123 CONG. REC. 28416 (1977).

301. S. 3418, 96th Cong., 1st Sess., 124 CONG. REC. 13519 (1978).

302. K. LEE, D. KLEMKA & M. MARTS, *supra* note 12, at 130-32.

303. 42 U.S.C. § 7131 (Supp. V 1981).

gress subjected BPA's substantive rules to notice and comment rulemaking under the Administrative Procedure Act (APA).³⁰⁴ Until enactment of the Department of Energy Organization Act, BPA had managed to exempt most of its actions from public review and comment under the APA.³⁰⁵ This helps to explain why the agency found the requirements of the National Environmental Policy Act so onerous: the court-ordered environmental impact statements were BPA's first experience with broad based public participation. The inapplicability of the APA had enabled BPA and its customers to formulate the Hydro-Thermal Power Program without any significant contributions from the states and the public, a fact that may have influenced the subsequent court injunctions. The Department of Energy Organization Act prodded BPA to establish procedures providing for public involvement in power marketing decisions, injecting some badly needed pluralism into the agency's decisionmaking.³⁰⁶

When the Ninety-sixth Congress convened in 1979, a coalition of BPA customers was solidly behind a legislative solution to the Northwest's power crisis. Neither BPA nor its customers wanted an administrative allocation of limited power supplies, although BPA did propose an allocation scheme in October of 1979.³⁰⁷ While the Natural Resources Defense Council asserted that a well-designed administrative allocation could spur the region's utilities and industrial customers to undertake conservation measures that would obviate the need for additional thermal plants,³⁰⁸ BPA and its customers maintained that such an allocation would be subjected to protracted litigation.³⁰⁹ They alleged that Congress could avoid

304. 42 U.S.C. § 7191(b)(1)-(3) (Supp. V 1981).

305. BPA's actions were exempted under the "public property" and "contracts" exemptions to the APA. See 5 U.S.C. § 553(a)(2) (1976). See also Luce & McLennan, *supra* note 180, at 64-68 (justifying the inapplicability of APA procedures because of BPA's need to conduct its fiscal affairs in a businesslike manner, free from the constraints normally associated with governmental functions).

306. See 46 Fed. Reg. 26,368 (1981). However, BPA does exhibit unusual interest in classifying its actions as "interpretative rules," which do not require an opportunity for public comment, indicating that the agency remains reluctant to fully involve the public in its decisions. See Luce & McLennan, *supra* note 180, at 67-68.

307. See 44 Fed. Reg. 57,465 (1979).

308. See R. CAVANAGH, L. MOTT, J. BEERS & T. LASH, CHOOSING AN ELECTRICAL ENERGY FUTURE FOR THE PACIFIC NORTHWEST: AN ALTERNATIVE SCENARIO, 232-42 (1980) (critiquing BPA's proposal) [hereinafter cited as NRDC SCENARIO].

309. See, e.g., *Pacific Northwest Electric Power Planning: Hearings on H.R. 3508 and H.R. 4159 Before the Subcomm. on Energy and Power of the House Comm. on Interstate and Foreign Commerce*, 96th Cong., 1st Sess. 311-13 (1979) (testimony of Eric Redman) [hereinafter cited as *Hearings*]. The Ninth Circuit's decision in *City of Santa Clara v. Andrus*, 572 F.2d 660, 670 (9th Cir.), *cert. denied*, 439 U.S. 859 (1978), held that the Secretary of the Interior's power marketing decisions only pertained to allocations of power to preference customers. It did not, as Mr. Redman pointed out in his testimony, remove from judicial review questions such as whether Oregon's Domestic and Rural Power Authority was, in fact, a preference customer.

the uncertainties accompanying administrative allocation by devising a legislative allocation scheme and equipping BPA with the authority to purchase power from nonfederal sources on a long term basis.³¹⁰ Supplying BPA with purchase authority was, they claimed, the key to implementing any legislative allocation scheme.³¹¹ Congress apparently agreed.³¹² The Senate passed the regional legislation on August 3, 1979, the House passed an amended bill on November 17, 1980, which the Senate agreed to two days later.³¹³ On December 5, 1980, President Carter signed the Pacific Northwest Electric Power Planning and Conservation Act into law.³¹⁴

VII. LOOKING BACKWARD: THE IMPLEMENTATION OF THE NORTHWEST POWER ACT IN HISTORICAL CONTEXT

No attempt will be made here to evaluate the Northwest Power Act in comprehensive fashion.³¹⁵ Rather, this section will attempt to portray some of the Act's significant provisions and their implementation in the context of a half century of hydroelectric system development.

Before highlighting some of the Act's provisions, it should be noted that the Act passed largely because it seemed to benefit all the interest groups that lobbied for it. First, rate disparities between consumers served by private utilities and those served by public utilities were minimized by providing private utilities access to BPA lower-cost power.³¹⁶

310. Since 1974, BPA has had authority to purchase power on a short term (five years or less) basis. See 16 U.S.C. § 838i(b)(6) (Supp. V 1981); *supra* note 290 and accompanying text.

311. Without purchase authority, and bound by the preference clause, Bonneville can't, as a legal matter, sign firm power contracts with the investor-owned utilities or sign new industrial firm power contracts with the DSIs [direct service industries]. Without the ability to sign those contracts, Bonneville can't carry out the legislated allocation.

Hearings, *supra* note 304, at 312 (testimony of Eric Redman).

312. See Jackson, *supra* note 278, at 14-22.

313. Three committees issued reports on the proposed legislation: the Senate Committee on Energy and Natural Resources, S. REP. NO. 272, 96th Cong., 1st Sess. (1979); the House Committee on Interstate and Foreign Commerce, H.R. REP. NO. 996, Part I, 96th Cong., 2d Sess. (1980); and the House Committee on Interior and Insular Affairs, H.R. REP. NO. 976, Part II, 96th Cong., 2d Sess. (1980). All three reports, along with floor statements, a legislative chronology, and the text of the Act, have been compiled into one volume by BPA. BONNEVILLE POWER ADMINISTRATION, LEGISLATIVE HISTORY OF THE PACIFIC NORTHWEST ELECTRIC POWER PLANNING AND CONSERVATION ACT (1981). See also K. LEE, D. KLEMKA & M. MARTS, *supra* note 12, at 130-81 (detailed analysis of the evolution of the bill in the Senate).

314. Pub. L. No. 96-501, 94 Stat. 2697 (codified at 16 U.S.C. §§ 839-839h (Supp. V 1981)).

315. See, e.g., *Symposium on the Northwest Electric Power Planning and Conservation Act*. 13 ENVTL. L. Nos. 3 & 4 (forthcoming, 1983).

316. See Northwest Power Act, *supra* note 19, § 5(c), 16 U.S.C. § 839c(c) (Supp. V 1981) (authorizing an exchange of power between BPA and private utilities); Michie, *supra* note 180, at 308-09.

The costs of this increased access were paid for by increased rates charged to industrial customers.³¹⁷ Second, in return for paying increased rates, existing industrial customers were promised new long term contracts.³¹⁸ Third, preference customers were guaranteed that their rates would not increase more than they would have without the Act.³¹⁹ Fourth, BPA was given purchase authority to expand the system in order to meet the requirements of its customers, but only pursuant to a number of provisions designed to guard against any abuses of that authority.³²⁰ In particular, in response to state claims of a lack of involvement in major regional energy issues, the Act created a unique interstate planning entity, the Pacific Northwest Electric Power and Conservation Planning Council, to govern BPA's acquisition of major resources and promote conservation and renewable resources programs through a regional energy plan.³²¹ Fifth, in an effort to minimize rate increases, the Act requires that all acquisitions be "cost effective," including consideration of environmental costs, and establishes a resource priority scheme favoring conservation and renewable resources over thermal plants.³²² Sixth, Columbia Basin fish and wildlife damaged by the hydroelectric system are to be preserved and restored through a basin-wide program promulgated by the Council.³²³ Finally, the Act guarantees public involvement in all significant resource decisions.³²⁴

A. *The Enlarged Mandate*

The 1980 Northwest Power Act, referred to as a regional electric energy constitution by one commentator,³²⁵ makes four significant changes

317. See Northwest Power Act, *supra* note 19, § 7(c), 16 U.S.C. § 839e(c) (Supp. V 1981).

318. *Id.* §§ 5(d), 5(g)(5), 16 U.S.C. §§ 839c(5)(d), 839c(g)(5).

319. See *id.* § 7(b)(2), 16 U.S.C. § 839e(b)(2).

320. See *id.* § 6, 16 U.S.C. § 839d; see generally Luce & McLennan, *supra* note 180, at 81–88; Michie, *supra* note 180.

321. See Northwest Power Act, *supra* note 19, § 4, 16 U.S.C. § 839b (Supp. V 1981); Blumm & Johnson, *supra* note 167, at 508–12. See also Northwest Power Act, *supra* note 19, § 10(a), 16 U.S.C. § 839g(a) (Supp. V 1981) (preserving states' ratemaking, planning, and facility siting authorities); *id.* § 10(h), 16 U.S.C. § 839g(h) (preserving state systems of water allocation).

322. Northwest Power Act, *supra* note 19, §§ 4(e)(1), 3(4), 16 U.S.C. §§ 839b(e)(1), 839a(4) (Supp. V 1981).

323. *Id.* § 4(h), 16 U.S.C. § 839b(h); see Blumm & Johnson, *supra* note 167 at 516–39; Blumm, *supra* note 18.

324. See, e.g., Northwest Power Act, *supra* note 19, §§ 2(3), 4(g), 16 U.S.C. §§ 839(3), 839b(g) (Supp. V 1981). On the importance of public involvement, see Blumm & Johnson, *supra* note 167, at 549–53.

325. E. Redman, A Brief Functional Analysis of the New Northwest Power Act 1 (June 1, 1981) (memorandum presented to the Northwest Power Planning Council) (copy on file with the *Washington Law Review*) [hereinafter cited as Redman memo].

to the system's basic marching orders. The Act modifies the old paradigms of public power preference, widespread use, sound business principles, and lowest possible rates³²⁶ with new directives of regional cooperation, a conservation preference, concepts of shared powers and open processes, and an enterprise theory of liability. The changes are evident in the purposes of the 1980 Act.

First, the Act recognizes that BPA is no longer simply a public power promoter. In fact, the agency's role as an open advocate for public power was short-lived; since World War II, it has preached a gospel of growth through electric power use.³²⁷ Electric growth required the cooperation of private utilities, which became BPA customers during the 1950's and which were key partners in the formulation of the Hydro-Thermal Power Program in the 1960's.³²⁸ The Act responds to these realities: one of its purposes is to promote cooperation among all utility systems, recognizing the utility diversity that has characterized the region for generations.³²⁹

Second, while the 1980 Act does not expressly repeal the "widespread use" command, it fundamentally changes the definition of that directive by giving priority to conservation and efficient use of electric power.³³⁰ This change is a reflection of the fact that conservation is often the cheapest means of meeting increased demands.³³¹ In addition, it should be recalled that widespread use was never a mandate to use electric energy profligately; it was basically a charge to extend electrification to rural areas that private utilities determined were uneconomical to serve.³³² Having achieved the rural electrification goal, the best means of maintaining the objective of "lowest possible rates" is now through efficient use and conservation of limited electric supplies.

The third change is also more of a redefinition than a repeal. By requiring the involvement of the states, local governments, and the public in regional electric power planning,³³³ the Act implicitly recognizes that the definition of "sound business principles" is not within the exclusive

326. Northwest Power Act, *supra* note 19, § 5(b)(1), 16 U.S.C. § 839c (Supp. V 1981) (public preference); *id.* § 5(b), 16 U.S.C. § 839c(b) (widespread use); *id.* § 7(a)(1), 16 U.S.C. § 839e(a)(1) (sound business principles); *id.* § 7(a), 16 U.S.C. § 839e(e) (lowest possible rates).

327. *See supra* parts II B & III D.

328. Private utilities began to collaborate with BPA on regional forecasts in 1946. *See supra* text accompanying notes 168-70. They signed long-term BPA contracts in 1953. *See supra* text accompanying notes 184-85. On the role of private utilities in financing thermal power plants, *see supra* text accompanying notes 253-54 (Hanford) and 269-70 (Hydro-Thermal Power Program).

329. Northwest Power Act, *supra* note 19, § 2(5), 16 U.S.C. § 839(5) (Supp. V 1981).

330. *Id.* §§ 2(1)(A), 4(e)(1), 16 U.S.C. §§ 839(1)(A), 839b(e)(1) (Supp. V 1981).

331. *See generally* NRDC SCENARIO, *supra* note 308; Northwest Conservation Act Coalition, A Model Electric Power and Conservation Plan for the Pacific Northwest (Summary) (May 5, 1982).

332. *See supra* part II E.

333. Northwest Power Act, *supra* note 19, § 2(3), 16 U.S.C. § 839(3) (Supp. V 1981).

province of technical experts. Instead, the Act requires that administrators seek out and involve the public to ensure that "sound business principles" result from a pluralistic process and systematic consideration of divergent perspectives.³³⁴ Related to this commitment to open processes is the concept of shared powers, which is best reflected in the establishment of the Regional Council. In short, the Act recognizes that most of the electric energy questions facing the region are not technical ones, but political ones. As a result, the risk of errors is to be minimized through pluralistic administrative processes, shared powers, and the availability of judicial review.³³⁵

Fourth, the mandate of "lowest possible rates"³³⁶ has been modified considerably by the 1980 Act, particularly in its promise to ensure that all environmental costs are paid by electric users. In fact, the Act not only directs that future actions internalize their costs,³³⁷ it makes a significant commitment to compensate for past losses sustained by the Columbia Basin's fish and wildlife resources at the hands of the hydroelectric system.³³⁸ By mandating remedial fish and wildlife efforts and internalization of future environmental costs, the Act embraces a theory of enterprise liability of electric power planning, operations, and ratemaking. Fish and wildlife and other environmental resources will no longer be sacrificed to subsidize electric rates.

It is simply not practical to attempt to survey all the complex provisions of the Northwest Power Act. The following sections, however, will briefly summarize three of the principal innovations of the Act: the Regional Council's fish and wildlife program, BPA's allocation of power entitlements, and the Council's energy plan.

B. *The Fish and Wildlife Program*

Enterprise liability is best reflected in the Act's provisions aimed at protecting and restoring the Columbia Basin's fish and wildlife resources, particularly its economically valuable anadromous fish runs. Section 4(h) directs the Regional Council to develop a comprehensive program to pre-

334. *Id.* § 4(g)(1), 16 U.S.C. § 839b(g)(1) (Supp. V 1981) (BPA and the Regional Council to maintain comprehensive public involvement programs).

335. *Id.* § 9(e), 16 U.S.C. § 839f(e) (authorizing judicial review of final agency actions).

336. *See supra* note 326.

337. Northwest Power Act, *supra* note 19, §§ 4(e)(1), (2), 3(4), 16 U.S.C. §§ 839b(e)(1), (2), 839a(4) (Supp. V 1981) (cost-effective resource acquisitions to include quantifiable environmental costs and benefits and consideration of nonquantifiable costs and benefits). *See Michie, supra* note 180, at 314.

338. *See Blumm, supra* note 18, at 107 n.14 (all fish and wildlife costs attributable to the development and operation of the hydroelectric system to be paid by ratepayers).

serve and rehabilitate these resources to the extent their declines are attributable to the development and operation of the hydroelectric system.³³⁹ Although concern over the effects of dam building on anadromous fish runs was evident during the New Deal,³⁴⁰ the cumulative effects of the post-war boom in dam building upon these fish runs were little appreciated. Even less appreciated were the long term effects of the events of 1964—the doubling of the Basin's storage capacity as a result of the ratification of the Columbia River Treaty and the formalization of integrated system operations in the Columbia River Coordination Agreement.³⁴¹ First, the increased storage capacity deprived downstream migrating anadromous fish of much of the spring freshet upon which they depended for transportation to the ocean.³⁴² Second, the integrated operations promoted the "one utility concept" that enabled the Hydro-Thermal Power Program to increasingly rely on streamflows to generate power to meet peak load demands.³⁴³

The region's hydroelectric power was long underpriced, partly because the fish and wildlife costs of this transformation of Columbia Basin streamflows from fish habitat to fuel supply were not accounted for in either system operations or in BPA's rates.³⁴⁴ In effect, BPA's rates were subsidized by fish and wildlife losses. Not coincidentally, Columbia Basin anadromous fish runs have experienced precipitous declines over the past thirty years.³⁴⁵

The 1980 Act made it clear that such losses were unacceptable and ordered the Regional Council to develop a remedial program for BPA, the Corps, and other federal water managers to implement. On November 15, 1982, the Council promulgated a program designed to increase spring

339. Northwest Power Act, *supra* note 19, § 4(h), 16 U.S.C. § 839b(h) (Supp. V 1981). A key question, given the numerous activities contributing to the degradation of fish and wildlife habitat, is the extent to which such degradation is attributable to the development and operation of the hydroelectric system.

340. See Blumm, *supra* note 6, at 228–29 nn.74, 76 (describing a 1937 Report of the Commissioner of Fisheries and the 1934 Fish and Wildlife Coordination Act, 16 U.S.C. §§ 661–666c (1976)).

341. See *supra* parts VB & VC.

342. See Blumm, *supra* note 18, at 106.

343. See *A Reexamination of Columbia Basin Fish and Wildlife Program Issues*, NATURAL RESOURCES LAW INST., 19 ANADROMOUS FISH LAW MEMO, Sept. 1982, at 3.

344. No environmental impact statement on coordinated system operations has ever been performed. See *Operation of the Federal Columbia River Power System and the Structuring of Administrative Decisionmaking*, NATURAL RESOURCES LAW INST., 10 ANADROMOUS FISH LAW MEMO, Oct. 1980, at 7–9.

345. For example, upriver Columbia River summer chinook runs have declined 83% over the last 23 years; spring chinook runs hit an all-time low in 1979; sockeye runs are at 38% of their 43-year average; and summer steelhead runs are down 73% over the last 40 years. *Fish and Wildlife Program Recommendations Submitted to Regional Council*, NATURAL RESOURCES LAW INST., 16 ANADROMOUS FISH LAW MEMO, Dec. 1981, at 4.

flows, produce protective fish bypass operations and facilities, and undertake fish and wildlife enhancement measures.³⁴⁶ Although questions have been raised about both the sufficiency of these measures³⁴⁷ and the Council's authority to order federal agencies to implement the measures contained in the program,³⁴⁸ there is little question that Congress intended the program to change the manner in which the hydroelectric system is operated and planned. For example, it is clear that in its provision for spring fish flows, the program amends the Pacific Northwest Coordination Agreement's system operating premises.³⁴⁹ Moreover, the Act's provisions requiring "equitable treatment" for fish and wildlife in the Columbia Basin³⁵⁰ and "due consideration" beyond the Columbia Basin³⁵¹ make it evident that henceforth fish and wildlife considerations are to be an important constraint on hydroelectric system expansion. For example, minimizing fish and wildlife impacts by reducing manipulation of stream-

346. Notice of Program Approval, 47 Fed. Reg. 53, 976 (1982); see NORTHWEST POWER PLANNING COUNCIL, COLUMBIA BASIN FISH AND WILDLIFE PROGRAM (1982); Northwest Power Planning Council, *Draft Program—At a Glance*, 1 NORTHWEST ENERGY NEWS No. 6, Sept.–Oct., 1982, at 4–14; *A Reexamination of Columbia Basin Fish and Wildlife Program Issues*, NATURAL RESOURCES LAW INST., 19 ANADROMOUS FISH LAW MEMO, Sept. 1982, at 1–13 (describing the Council's draft program, which was very similar to the program that was promulgated); see also NATURAL RESOURCES LAW INST., 22 ANADROMOUS FISH LAW MEMO (forthcoming, 1983) (evaluating the final program).

347. The Columbia River Indian tribes alleged that the flows contained in the Council's water budget were inadequate, especially on the Snake River. See 1 Northwest Conservation Act Report No. 23, Nov. 26, 1982, at 2. The Council rejected the higher flows recommended by the tribes because it determined these flows were not accompanied by enough supporting information to demonstrate their superiority over its Water Budget flows. NORTHWEST POWER PLANNING COUNCIL, THE COLUMBIA BASIN FISH AND WILDLIFE PROGRAM 34–35 (1982).

348. BPA has suggested that the program is not binding on it despite § 4(h)(10)(A) of the Northwest Power Act, 16 U.S.C. § 839b(h)(10)(A) (Supp. V 1981) (directing BPA to use its funding and other authorities in a manner consistent with the program). See BONNEVILLE POWER ADMINISTRATION, COMMENTS ON THE DRAFT COLUMBIA FISH AND WILDLIFE PROGRAM, Appendix I (concluding that the Act contains no "clear and unambiguous waiver of federal supremacy"). Note that § 4(h)(10) is not the only consistency provision in the Act. For example, § 5(d)(3) establishes a number of conditions which must be satisfied before BPA can increase power sales to its industrial customers after approval of the Council's electric power plan, including a determination by the Council that such sales would be consistent with the plan. 16 U.S.C. § 839c(d)(3) (Supp. V 1981).

349. See *supra* note 231. Although existing contracts like the Pacific Northwest Coordination Agreement are preserved by § 10(b) of the Northwest Power Act, 16 U.S.C. § 839g(b) (Supp. V 1981), § 15 of the Agreement expressly disclaims any intent to authorize operations that are inconsistent with non-power functions. See Blumm, *supra* note 6, at 246 n.184.

350. Northwest Power Act, *supra* note 19, § 4(h)(11)(A)(i), 16 U.S.C. § 839b(h)(11)(A)(i) (Supp. V 1981); see Blumm, *supra* note 18, at 152–56.

351. Northwest Power Act, *supra* note 19, § 4(e)(2), 16 U.S.C. § 839b(e)(2) (Supp. V 1981); see Thatcher, *The Pacific Northwest Electric Power Planning and Conservation Act: Fish and Wildlife Protection Outside the Columbia River Basin*, 13 ENVTL. L. 517 (1983).

flows justifies aggressive pursuit of conservation programs and renewable resources acquisitions even during periods of power surplus.³⁵²

C. *Allocating Power Entitlements*

A driving force behind the enactment of the 1980 Act was the desire of BPA's customers to avoid implementation of the administrative allocation scheme that BPA proposed in 1979.³⁵³ The Act established guidelines for allocating power entitlements. While the Council was given authority to promulgate the fish and wildlife program, the task of implementing the allocation scheme was left to BPA.³⁵⁴ This division of responsibilities can be questioned. BPA's power sales policy has consistently emphasized increased power sales to industrial customers that, while producing increased revenues, put pressure on system planners to expand the system and resulted in the Hydro-Thermal Power Program's commitment to expensive thermal plants.³⁵⁵ However, because the rate impacts of this expansion were deferred, its long term costs were masked.³⁵⁶

The wisdom of the Act's directive that BPA offer power sale contracts to its customers within nine months of its enactment also can be questioned. This tight time frame made meaningful public involvement difficult. In particular, BPA determined that the nine-month period made it impossible for it to perform an environmental impact statement,³⁵⁷ a deci-

352. See *infra* note 371. It should be noted that hydropower is defined as a renewable resource. Northwest Power Act, *supra* note 19, § 3(16), 16 U.S.C. § 839a(16) (Supp. V 1981). As of November, 1982, applications for hydroelectric power developments with a potential of 10,000 megawatts were pending. Northwest Power Planning Council, *Renewable Renaissance*, 1 NORTHWEST ENERGY NEWS No. 7, Nov. 1982, at 9. Development of many of these sites could adversely affect fish and wildlife. See Thatcher, *supra* note 351, at 519-20 (overviewing direct and indirect adverse effects of "small" hydroelectric projects); *id.* at 527-36 (suggesting procedures and criteria to minimize adverse effects on fish and wildlife).

353. See *supra* notes 307-14 and accompanying text.

354. Northwest Power Act, *supra* note 19, § 5, 16 U.S.C. § 839c (Supp. V 1981).

355. See *supra* part VA.

356. This is due to the fact that BPA "melds" expensive thermal power costs with cheaper hydropower in its rates. See *supra* note 263; NRDC SCENARIO, *supra* note 308, at 228-32 (criticizing melded rates and advocating a two-tiered rate structure that would reflect the marginal costs of new thermal plants); see also BONNEVILLE POWER ADMINISTRATION, 1982 RATE PROPOSAL, FINAL ENVIRONMENTAL IMPACT STATEMENT 3-5 July, 1982) (rejecting rates based on long-run incremental costs as inconsistent with the 1937 Bonneville Project Act's directive of "lowest possible rates consistent with sound business principles") [hereinafter cited as BPA RATE EIS].

357. See Memorandum from BPA's Acting Environmental Manager Anthony Morrell to BPA Administrator Peter Johnson (Sept. 3, 1981), reprinted in BONNEVILLE POWER ADMINISTRATION, ENVIRONMENTAL REPORT PREPARED TO ACCOMPANY THE FINAL POWER SALES AND RESIDENTIAL EXCHANGE CONTRACTS (Sept. 1981) (justifying the failure to prepare an EIS not only on the tight time frame, but also because it "is not possible to negotiate and prepare a contract at the same time") [hereinafter cited as BPA ENVIRONMENTAL REPORT].

sion which has been challenged in the courts.³⁵⁸ BPA also agreed with the arguments of its customers that the Act limited its ability to condition power sales.³⁵⁹ As a result, BPA deleted the long-standing provision that gave it independent authority to reduce power deliveries where the activities of its customers impaired Columbia River fish and wildlife or the scenic beauty of the Columbia River Gorge,³⁶⁰ choosing instead to rely on actions of other regulatory agencies.³⁶¹ BPA also resisted contract conditions suggested by the National Marine Fisheries Service concerning fish and wildlife protection and the Natural Resources Defense Council concerning conservation incentives.³⁶²

Perhaps the most controversial aspect of the power sale contracts, however, concerned BPA's offer to its industrial customers. Because these contracts gave BPA's industrial customers first priority to BPA's nonfirm power, public power agencies claimed they violated the 1937 Act's public preference clause that was reaffirmed in the 1980 Act.³⁶³ The Ninth Circuit agreed and invalidated the industrial contracts in *Central Lincoln Peoples' Utility District v. Johnson*, a case that will be resolved by the Supreme Court.³⁶⁴

It may seem odd that BPA, an offspring of the public power movement, would adopt a contract interpretation opposed by its preference customers. The controversy, however, is explainable by the fact that BPA's obligations now run much wider than simply to its preference cus-

358. *Forelaws on Board v. Johnson*, No. 82-3257 (9th Cir. filed May 10, 1982). This suit was originally filed in District Court, but was dismissed by District Judge James Reddem, who ruled that even though suits under the National Environmental Policy Act are not mentioned in § 9(e)(5) of the Northwest Power Act, which requires a variety of suits to be brought in the Ninth Circuit within 90 days of final agency action, the case had to be filed in the Ninth Circuit. Judge Reddem's reasoning was that if District Courts heard NEPA suits challenging actions under the Northwest Power Act, it would "delay dispute resolution and result in an irrational bifurcated system" of review, contrary to the intent of the Northwest Power Act. See NATURAL RESOURCES LAW INST., 17 ANADROMOUS FISH LAW MEMO, Apr. 1982, at 25 n.12 (summarizing the ruling in *Forelaws on Board v. Johnson*, No. 81-916 (D. Or. filed Sept. 30, 1981)).

359. See Redman memo, *supra* note 325, at 3 (alleging that BPA's authority to condition contracts was limited to §§ 5(b), (e)).

360. Power from the Bonneville Project Power Plant shall be available only to those purchasers the waste products from whose plants or operations shall not be harmful to, or destructive of, the fish or other aquatic life of the Columbia River; nor otherwise pollute the stream; nor detract from the scenic beauties of the Columbia River Gorge.

BPA HISTORY, *supra* note 20, at 286-87, quoting general terms and conditions included in all BPA power sale contracts beginning in 1938; W. RODGERS, *supra* note 133, at 171-73 (noting the efforts of BPA's industrial customers to change this provision in the early 1970's).

361. BPA ENVIRONMENTAL REPORT, *supra* note 357, at 2-4 to 4-8.

362. *Id.* at 2-8 to 2-12.

363. Northwest Power Act, *supra* note 19, § 10(c), 16 U.S.C. § 839(c)(g) (Supp. V 1981); see BPA ENVIRONMENTAL REPORT, *supra* note 357, at 12-18.

364. 673 F.2d 1076, 1083 (9th Cir.), *amended*, 686 F.2d 708 (9th Cir. 1982), *cert. granted*, 51 U.S.L.W. 3699 (U.S. Mar. 25, 1983) (No. 82-1071).

tomers. In effect, BPA becomes a regional insurer for all its customers, meeting peak loads of both public and private utilities.³⁶⁵ This insurance is provided primarily by the interruptible nature of a portion of its industrial sales.³⁶⁶ Thus, allocating its nonfirm, or surplus power first to its industrial customers was an attempt by BPA to increase regional reserves. The Ninth Circuit's decision, however, is a reminder that BPA's regional role is encumbered by historical baggage—the decision stands for the proposition that regional efficiency is not to be accomplished at the expense of public preference.³⁶⁷

Nevertheless, acceptance of BPA's contracts by nearly all of its customers has augmented the concept of regionalism.³⁶⁸ Private utility customers now benefit from increasing access to BPA power through residential exchange contracts.³⁶⁹ Moreover, the contracts commit BPA to meet the firm load growth of both public and private utilities where requested.³⁷⁰ These additional regional responsibilities, of course, will require system expansion, and the Act authorizes long term acquisition of generating resources by BPA.³⁷¹ A good deal of the complexity of the Act

365. See BPA ENVIRONMENTAL REPORT, *supra* note 357, at 3-1 to 3-8 (discussing BPA's "computed requirements" contracts).

366. *Id.* at 4-11.

367. In *Central Lincoln*, the Ninth Circuit stated that neither increased BPA revenues nor greater regional benefits justify bypassing the preference clause. 673 F.2d at 1082-83 & n.8. In an earlier decision, the same court ruled that even the long-run interests of existing preference customers do not justify denying power to a preference customer in favor of a "banking" scheme with a non-preference customer. *City of Santa Clara v. Andrus*, 572 F.2d 660, 670-71 (9th Cir. 1978). *But see* E. Redman, *supra* note 94 (distinguishing the *Santa Clara* decision because the preference clause involved there, § 9(c) of the Reclamation Act of 1939 (43 U.S.C. § 825h(c) (1976)), was not accompanied by other allocative provisions).

368. See Northwest Power Planning Council, *Finally, The Region Signs On*, NORTHWEST ENERGY NEWS No. 6, Sept.-Oct., 1982, at 3-4 (noting that 145 BPA customers signed new BPA power sales contracts—only six preference customers and one industrial customer refused to do so).

369. See BPA ENVIRONMENTAL REPORT, *supra* note 357, at 5-1 to -14.

370. *Id.* at 3-2.

371. Northwest Power Act, *supra* note 19, § 6, 16 U.S.C. § 839d (Supp. V 1981). However, the urgency of resource acquisitions has dissipated with the sudden long term power surpluses projected for the region. BPA now anticipates power surpluses to persist at least through the remainder of the decade, a dramatic about-face from pre-1980 forecasts of long term power shortages. See Blumm, *supra* note 17, at 148 n.197; Northwest Power Planning Council, *Weighing the New Surplus*, 1 NORTHWEST ENERGY NEWS No. 5, Aug. 1982. The surplus has deflected attention from resource acquisitions to power marketing initiatives, such as California power sales, that could reduce both the surplus and pressure for BPA rate increases. It should, however, not be forgotten that past power marketing policies have quickly turned surpluses to shortages. See *supra* text accompanying notes 162-65 (discussing 1940's surplus); part VA (discussing 1960's surplus); see also M. Blumm, *Risk Management and Northwest Electric Power Planning: Some Lessons From the Rearview Mirror* (unpublished manuscript, to be published in 13 ENVTL. L. (1983)) (arguing, inter alia, for the preservation of the regional preference clause that requires California power sales to be conditioned on Northwest needs). A prudent resource acquisition policy would emphasize conservation measures as long term insurance against future shortages and generating resources that can reduce conflicts between

is attributable to a desire to place checks on this acquisition authority,³⁷² principally by authorizing the Regional Council to develop an electric energy plan to chart the region's energy future.

D. The Regional Energy Plan

Scheduled for promulgation in April, 1983, the Regional Electric Power Plan will reflect all of the Act's overriding themes.³⁷³ First, it will be the result of open processes since it will be produced only after widespread public review and comment. Second, although its forecast of the region's electric energy needs will have considerable influence over BPA's acquisitions, reflecting the shared powers concept, it will not dictate decisions. For example, BPA may acquire major resources that are inconsistent with the plan if it obtains congressional approval.³⁷⁴ Third, embracing the action of enterprise liability, the plan will give priority only to "cost effective" resources, including environmental costs.³⁷⁵ Fourth, among cost effective resources, the plan will favor conservation programs.³⁷⁶ Finally, the plan will contain a region-wide forecast, estimating the load growth of all the region's utilities.³⁷⁷

The Council forecast will clearly be the most important element of its energy plan. Overforecasting electric demands, a regional tradition since World War II, could justify acquisition of non-priority resources, even those which are not "cost effective."³⁷⁸ Although the Council has indicated that it will develop a range of forecasts to minimize the risk of overestimates,³⁷⁹ there will be considerable pressure on the Council to include

hydroelectric operations and fish and wildlife measures, perhaps enabling the Regional Council to increase fish flows to levels requested by the Columbia Basin's Indian tribes. *See supra* note 347.

372. *See, e.g., Hearings, supra* note 309, at 312 (testimony of Eric Redman).

373. *See supra* part VIIA.

374. Northwest Power Act, *supra* note 19, § 6(c)(3), 16 U.S.C. § 839d(c)(3) (Supp. V 1981); *see Luce & McLennan, supra* note 180, at 86.

375. *See supra* notes 322 & 337.

376. Northwest Power Act, *supra* note 19, § 3(4)(D), 16 U.S.C. § 839a(4)(D) (Supp. V 1981) (10% cost advantage for conservation programs). *See Michie, supra* note 180, at 314-30 (detailed evaluation of the priority scheme).

377. *See Northwest Power Planning Council, Wanted: A Good Crystal Ball*, 1 NORTHWEST ENERGY NEWS No. 2, Apr. 1982, at 8.

378. Recall that the Tacoma Conference (later the Pacific Northwest Utilities Conference) was founded largely because private utilities projected no need for system expansion after World War II. With coordinated forecasts, the region's utilities invariably predicted the need for system expansion. *See supra* notes 160 & 168-70 and accompanying text.

379. *See Northwest Power Planning Council, Coming to Grips with Uncertainty*, 1 NORTHWEST ENERGY NEWS No. 3, May-June 1982 at 9 (noting that the Council adopted the principles outlined in Lee, *The Path Along the Ridge: Regional Planning in the Face of Uncertainty*, 58 WASH. L. REV. 317 (1983)).

thermal plants in its high-end estimates.³⁸⁰ The Act's priority scheme, disfavoring thermal plants, should be interpreted to place a heavy burden on the Council to justify such forecasts, particularly if they authorize subsidies to resource developers in the form of feasibility studies.³⁸¹ If utilities believe that the Council's forecasts underestimate demands, the Act enables them to take action to correct for such errors.³⁸² On the other hand, overestimates that prompt thermal plant construction are not easily corrected and are economically destabilizing.³⁸³ The lessons of the past indicate that future forecasts are more likely to assure an economical power supply if they avoid commitments to expensive thermal plants.³⁸⁴

VIII. CONCLUSION

Although the region's hydroelectric system was an offspring of the New Deal, its philosophical underpinnings can be traced to the Progressive conservation movement. Progressive notions about the public nature

380. See, e.g., Northwest Power Planning Council, *Coming to Grips with Uncertainty*, 1 NORTHWEST ENERGY NEWS No. 3, May-June 1982, at 19 (PNUCC argument that the Council should plan to meet the mid-point, not the low range, of its range of forecasts).

381. Northwest Power Act, *supra* note 19, § 6(f)(1), 16 U.S.C. § 838d(f)(1) (Supp. V 1981) (authorizing the payment of feasibility and pre-construction costs to developers for resources that are a consistent plan and meet other criteria).

382. The Act not only preserves the rights of utilities to continue to develop resources, § 2(5)(B), 16 U.S.C. § 839(5)(B), but directs BPA to grant billing credits for conservation programs and resource development that reduce BPA's obligation to serve their loads, § 6(h)(1), 16 U.S.C. § 839d(h)(1). This promise of payment for utility initiatives should encourage utilities which disagree with the Council's forecast to develop resources according to their own forecasts. However, unlike resource acquisitions, the risks are on resource developers, not the region, at least until the billing credit has been granted. See BONNEVILLE POWER ADMINISTRATION, ENVIRONMENTAL ASSESSMENT OF PROPOSED BILLING CREDIT POLICY (June, 1982); see also Michie, *supra* note 180, at 320-22.

383. Of course, the economic tragedy of the Washington Public Power Supply System's nuclear plants is the best evidence of this destabilization. The five plants, originally estimated to cost \$5 billion, now have a price tag of nearly \$24 billion. These skyrocketing costs prompted termination of the two plants which were not regionally insured through net billing. This, in turn, has prompted a series of legal challenges over liability for the unrecovered costs of the plants. See *Legal Scorecard*, 1 Northwest Conservation Act Report No. 12, June 11, 1982, at 1-2 (summarizing WPPSS litigation). The costs of the three net billed plants have produced significant BPA wholesale rate increases, which in turn, have dampened demand, confirming the once-disparaged theory of the price elasticity of electricity. See BPA RATE EIS, *supra* note 356. Reduced demands produced electric surpluses that induced BPA to half construction of one of the three net billed plants. See Northwest Power Planning Council, *New Troubles for WPPSS*, 1 NORTHWEST ENERGY NEWS No. 3, May-June, 1982, at 3-5. One commentator alleges that even discounting inflation, the five WPPSS plants are more expensive than the Panama Canal or the Great Wall of China, and about 60% of economic cost of the Vietnam War. Mitzman, *Who's Getting Rich Off WPPSS?* PACIFIC NORTHWEST MAGAZINE, July-Aug., 1982, at 40 (alleging that construction contractors, Wall Street brokers, and lawyers, have been among the principal beneficiaries).

384. This, perhaps, is the logical conclusion of Kai Lee's analysis. See Lee, *The Path Along the Ridge: Regional Planning in the Face of Uncertainty*, 58 WASH. L. REV. 317 (1983).

of streamflows and the opportunity provided by basin-wide waterways developments to promote social equity, prevent economic monopolies, and preserve the rural way of life had enduring influence on New Deal thought. The economic crisis that ushered in the New Deal provided the impetus to marry Progressive social philosophy with large-scale federal public works projects to stimulate economic recovery. Water projects not only put people to work, they produced electricity which provided competition to private utilities, whose excesses in the 1920's resulted in high rates, poor service, and rural areas with no electricity. Federal power as a "yardstick" for private utility rates and service reflected both a distrust of private utilities, which were often controlled by large holding companies far removed from local consumers, and a fundamental lack of faith in the ability to control utility excesses through regulation. With the passage of the 1935 Public Utility Holding Company Act and the emergence of state rate regulation in the post-war era, it is not surprising that the public power movement declined.

The chief regional legacy of the New Deal was, of course, the Bonneville Power Administration. The BPA was established to market wholesale power from federal dams and to promote public agencies as retailers of federal power. BPA's limited charter was the product of a compromise between New Dealers—who sought a TVA-like authority to plan and operate a basin-wide federal power system—and private utility interests—which wanted to see their allies, the Corps of Engineers, provided with power marketing authority. Although a BPA without authority to expand the system was viewed by public power advocates as a temporary step along the road to a more comprehensive mandate, the subsidence of the public power movement during and after World War II made an expanded mandate impractical. In a very real sense, this settling of institutional arrangements around a BPA without purchase authority necessitated congressional intervention in 1980.

In the post-war era, the system expanded rapidly through Corps of Engineers planning and congressional appropriations. The rejection of the New Deal paradigm of centralized national water planning left the shape of the Northwest hydroelectric power in the hands of regional planners and congressional log-rollers. While this arrangement produced more regional control, it also allowed key decisions to be made in low visibility technical reports and appropriations hearings, largely out of the public spotlight. With Congress willing to bankroll a hydroelectric system that surpassed the region's immediate needs, BPA employed its marketing authority to maintain and expand electric consumptive industries first lured to the region by defense contracts in World War II. Just as important, the agency forged institutional links with the region's private utilities to coor-

dinate demand forecasts. High forecasts induced more water projects; more projects meant that BPA could market power to industries and private utilities after supplying the needs of its preference customers. Cheap federally-produced power became the engine driving regional economic growth.

The partnership era of the 1950's solidified the role of private utilities as an integral element of the regional power puzzle. The private utilities gained long term BPA power contracts and took advantage of a moratorium on new federal project starts to secure licenses for their own hydroelectric projects. Diversity of project ownership induced BPA to broadly construe its authority to wheel nonfederal power in order to increase regional efficiency. Of even greater long term significance, private and public utilities collaborated on financing arrangements that enabled the equity-short public utilities to construct a number of projects, most notably on the mid-Columbia. This kind of cooperative financing would become a keystone of the region's approach to thermal plant construction in the 1960's and 1970's.

The "golden age" of the 1960's witnessed maturation of the hydroelectric system. Ratification of the Columbia River Treaty doubled the basin's storage capacity and promoted a series of contractual arrangements that increased system coordination and interregional power sales. In a classic example of achieving short term gains at the cost of long term losses, power surpluses were dissipated by a doubling of power sales to industrial customers. Coupled with an expansion of the planning horizon, increased industrial power sales produced forecasts of power shortages. With large hydroelectric sites all but exhausted, the region formulated plans to develop thermal power plants.

The transition to an integrated hydro-thermal system proved to be a difficult and controversial one. The initial Hydro-Thermal Power Program foundered when rising construction costs overtaxed BPA's financing scheme and the IRS limited the tax advantages available to project sponsors of federally-backed plants. Phase 2 of the program, financed without federal guarantees but still with significant federal responsibility for manipulating streamflows to meet peak power demands, was even shorter lived. Formulated by BPA and its customers without public involvement, the program was enjoined by the courts for violating NEPA, which proved to be perhaps the most cost-effective decision of the decade. In effect, the court rulings reflected the program's lack of political legitimacy. The considerable costs of thermal plants, both in terms of increasing rates and their spillover costs to the environment and the region's fish runs, made it clear that decisions about expanding the electric system could not be made by technical experts alone. A broader regional consensus was necessary.

That consensus produced the 1980 Northwest Power Planning and Conservation Act, with its commitments to open processes, shared power, and enterprise liability. But while the Act's emphasis on conservation, environmental quality, and fish and wildlife protection constitute a rejection of some of the premises of the Hydro-Thermal Power Program, it maintains longstanding principles of utility diversity, public preference, and industrial power sales. However, none of these principles will be quite the same in the post-Act era. For example, utility diversity has been assured largely by what amounts to an expansion of preference to include the residential and small farm consumers of private utilities. The costs of this preference expansion are to be recouped through increased rates paid by existing industrial customers, who agreed to increased rates in return for the planning certainty that came with new long term contracts.

More fundamentally, the Act represents a dramatic departure from the New Deal model of broad charters to federal administrators.³⁸⁵ Throughout the post-war era, electric policymaking was made largely by BPA and its customers, coupled with congressional acquiescence and appropriations. The detailed provisions of the 1980 statute indicate that Congress wished to narrow considerably the agency's statutory mandates. While there remains considerable administrative discretion, it seems clear that this discretion will be subject to more active congressional oversight in the future. Moreover, in creating the Regional Council and directing it to chart the region's energy future, Congress made a significant reallocation of power to the states. Although BPA has indicated it does not believe it is bound by the Council's directives, it remains to be seen whether the agency will attempt to test this interpretation.³⁸⁶

Finally, in addition to greater congressional oversight and more authority to the states, the Act promises public involvement in all regional power decisions. While the public nature of streamflows has not been seriously challenged since the Progressive conservation movement, regional hydroelectric policymakers frequently sacrificed public involvement in the name of administrative expertise. Unfortunately, the practical effect of unfettered administrative discretion has been to emphasize the short term at the expense of long term, and to emphasize the utility and industrial customers' access to decisionmakers at the expense of the general public. The Act's commitment to open processes is a recognition that the region can no longer afford to make policies that are not informed by public comment and which cannot withstand public challenges in the

385. See, e.g., Ackerman & Hassler, *Beyond the New Deal: Coal and the Clean Air Act*, 89 YALE L.J. 1466, 1471-73 (1980).

386. See *supra* note 348.

courts. Although public comment and judicial review have been attacked as dilatory and inefficient, it seems clear that the benefits of ensuring sound administrative decisionmaking far exceed the costs of delays. The lessons of the past indicate that the long term costs of poor decisions are simply too high for the region not to encourage active, vigorous, and critical public debate on the region's electric future.