

WHO'S IN CHARGE HERE? THE SHRINKING ROLE OF THE FEDERAL ENERGY REGULATORY COMMISSION IN HYDROPOWER RELICENSING

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INTRODUCTION

During the height of the dam-building era,¹ when “hundreds upon hundreds” of dams² were constructed and placed into operation,³ our conception of the complex issues surrounding hydropower development was in its infancy.⁴ Decades later, we have a greater understanding of how dams interact with aquatic and terrestrial ecosystems⁵ and anadromous fish species.⁶ As we

1. See Andrew H. Sawyer, *Hydropower Relicensing in the Post Dam-Building Era*, NAT. RESOURCES & ENV'T, Fall 1996, at 12, 12 (“The years from about 1930 to 1970 were a major dam-building era in the United States . . .”); see also MARK REISNER, *CADILLAC DESERT* 145-68 (Penguin Books rev. ed. 1993) (1986) (detailing a historical account of this time period).

2. “The Environmental Protection Agency estimates [that there are] at least 68,000 [dams in the United States], the National Park Service puts the total at 75,000, and the *Wall Street Journal* recently said ‘80,000 or so.’” W. Kent Olson, *Introduction* to JOHN D. ECHEVERRIA ET AL., *RIVERS AT RISK: THE CONCERNED CITIZEN'S GUIDE TO HYDROPOWER* 1, 1 (1989).

3. REISNER, *supra* note 1, at 159.

4. Speaking recently at the Federal Energy Regulatory Commission, Secretary of the Interior Bruce Babbitt commented:

Modern conservation science reveals more about the environmental costs of dams, how they exact a toll from rivers both upstream and down. Fifty years ago, no one foresaw how drastically dams might alter the natural cycle of rivers from the headwaters to the estuaries. Now we do. Few then ever saw dams as disrupting the spawning runs of anadromous fish up from the Pacific and Atlantic Oceans. Now we all do.

Bruce Babbitt, *Dams Are Instruments, Not Monuments: We Evaluate Them by the Health of the Watersheds to Which They Belong* (visited July 8, 1998) <<http://www.doi.gov/secretary/fercnote.htm>>. See generally Babbitt *Urges FERC to Stay the Course on Hydro Relicensing Efforts*, INSIDE F.E.R.C., July 13, 1998, at 4.

5. See Michael T. Pyle, Note, *Beyond Fish Ladders: Dam Removal as a Strategy for Restoring America's Rivers*, 14 STAN. ENVTL. L.J. 97, 102-07 (1995). See generally MICHAEL COLLIER ET AL., U.S. GEOLOGICAL SURVEY, *DAMS AND RIVERS: A PRIMER ON THE DOWNSTREAM EFFECTS OF DAMS* (1996).

6. See Sawyer, *supra* note 1, at 12; Babbitt, *supra* note 4. “Anadromous fish are those which spend most of their life in the open sea, but which return as adults to freshwater streams . . . to spawn.” *Puyallup Tribe, Inc. v. Department of Game*, 433 U.S. 165, 168 (1977).

have entered into what may be called the relicensing era,⁷ the Federal Energy Regulatory Commission ("FERC" or "Commission"),⁸ the federal agency having jurisdiction⁹ over non-federal¹⁰ hydropower project¹¹ relicensing, must determine how and whether these dams should continue in operation. This has been an arduous process, as our increased understanding of ecosystems and our resulting shift in priorities¹² have altered the

7. Since about 1986, the number of licenses approved for the construction and operation of new dams has sharply decreased. For example, the Federal Energy Regulatory Commission ("FERC" or "Commission") granted 89 licenses for new development in 1987, compared to just one in 1996. See RICHARD T. HUNT & JUDITH A. HUNT, U.S. DEPT OF ENERGY, *HYDROPOWER RESOURCES AT RISK* 2-5 (1997). During this same time, the number of licenses granted to continue operation—or relicensings—has steadily increased. For the years 1980 to 1986, 63 projects were relicensed, compared to 119 between the years 1987 to 1994. See *id.* at 2-6. Because 116 projects will undergo relicensing between the years 2001 and 2005, and another 69 will undergo relicensing between the years 2006 and 2010, the Commission will undoubtedly be focused on relicensing proceedings well into the twenty-first century. See American Rivers, *Facts About Hydropower and Dams* (visited Oct. 10, 1998) <<http://www.amrivers.org/facts.html>>. See also Part I.B. *infra*.

8. The Federal Power Commission was created in 1920. See Federal Water Power Act of 1920, Pub. L. No. 66-280, § 1, 41 Stat. 1063, 1063 (current version at 16 U.S.C. § 792 (1994)). In 1977, the Federal Energy Regulatory Commission assumed the functions of the Federal Power Commission. See Department of Energy Organization Act, Pub. L. No. 95-91, § 401, 91 Stat. 565, 582 (1977) (current version at 42 U.S.C. § 7171 (1994)). Throughout this comment, the term "Commission" is used interchangeably to refer to both the Federal Power Commission and the Federal Energy Regulatory Commission.

9. See *infra* text accompanying notes 95-97.

10. The Commission does not regulate federal hydropower projects. Instead, federal hydropower projects are regulated by congressional legislation authorizing the particular project. See, e.g., Boulder Canyon Project Act, 43 U.S.C. § 617 (1994). This comment focuses solely on projects licensed pursuant to the Federal Power Act.

11. Under the Federal Power Act, a project is a complete unit of . . . development, consisting of a power house, all water conduits, all dams and appurtenant works and structures (including navigation structures) which are a part of said unit, and all storage, diverting, or forebay reservoirs directly connected therewith, the primary line or lines transmitting power therefrom to the point of junction with the distribution system or with the interconnected primary transmission system, all miscellaneous structures used and useful in connection with said unit or any part thereof, and all water-rights, rights-of-way, ditches, dams, reservoirs, lands, or interest in lands the use and occupancy of which are necessary or appropriate in the maintenance and operation of such unit.

16 U.S.C. § 796(11) (1994).

12. See Bruce Babbitt, *Making History with a Sledgehammer*, DENV. POST, Sept. 20, 1998, at H1 (noting a priority shift from the dam-building era to a modern climate where "we recognize other forms of commerce—such as self-sustaining salmon runs—in our nation's rivers, and find growing, broad-based constituencies arguing on their behalf").

statutory and regulatory landscape since the time when many of these dams were originally licensed.¹³

The Edwards Dam, located on the Kennebec River in Augusta, Maine, illustrates the difficulties involved in the relicensing process. The licensees obtained an original thirty-year license in 1964,¹⁴ which expired in 1994.¹⁵ During the relicensing process, which commenced in 1991, the Secretaries of Commerce and the Interior prescribed installation of fish passage facilities.¹⁶ The Commission prepared an Environmental Impact Statement ("EIS")¹⁷ and concluded that these passage facilities would be incapable of restoring alewives, shad, and salmon.¹⁸ Moreover, the Commission found that the non-developmental benefits of restoring the channel outweighed the benefits derived from power production at the project.¹⁹ Because of these factors, the Commission denied a new license²⁰ for the continued opera-

13. An original license is a project's first license, *see* 18 C.F.R. § 16.2(b) (1998), which the Commission can issue for up to 50 years. *See* 16 U.S.C. § 799 (1994). Upon expiration of the original license, the licensee may seek a "new" license, which is granted during the relicensing process. *See* 18 C.F.R. § 16.2(b) (1998).

14. *See* Economic Dev. Corp., 32 F.P.C. 598, 600 (1964).

15. *See* Edwards Mfg. Co., 81 F.E.R.C. ¶ 61,255, at 62,199 (1997), *dismissed*, 84 F.E.R.C. ¶ 61,228 (1998).

16. *See id.* at 62,202.

17. *See id.* Under the National Environmental Policy Act of 1969 ("NEPA"), 42 U.S.C. §§ 4321-4370d (1994 & Supp. II 1996), the Commission is required to conduct an environmental review of any major federal action that has a significant impact on the quality of human health and the environment. *See* 42 U.S.C. § 4332(2) (1994); 18 C.F.R. § 380.1 (1998). In implementing NEPA, the Commission's regulations require licensees seeking a new license to prepare an environmental assessment ("EA") during the relicensing process, *see id.* § 380.5(b)(10), which is a concise document briefly analyzing whether the proposed major federal action would have a significant environmental impact. *See id.* § 380.2(d). If the EA indicates that the project would have a significant impact, the Commission conducts an EIS, *see id.* § 380.5(a), which is a comprehensive, detailed report of the project's impact on the environment. *See id.* § 380.2(e). For applications seeking to construct a new dam and to obtain an original license, an EIS is prepared as a matter of course. *See id.* § 380.6(a)(4).

18. *See Edwards Mfg. Co.*, 81 F.E.R.C. at 62,203.

19. The primary non-developmental benefit was the restoration of many fish species—including alewives, American shad, Atlantic salmon, Atlantic sturgeon, shortnose sturgeon, rainbow smelt, striped bass, and brown trout—to their native habitat and spawning grounds. *See id.* at 62,210. Other benefits included increased sport fishing opportunities and the creation of white water boating opportunities. *See id.*

20. *See id.* at 62,211. Two months prior to *Edwards Manufacturing Co.*, the Commission, finding that non-developmental interests surpassed projected project benefits, refused to grant an original license for the proposed Shelley Project, which would have been located on the Snake River in Idaho. *See City of Idaho Falls*, 80

tion of the dam and ordered the licensee to close and remove the facility.²¹ This decommissioning was the first and only time the Commission has exercised power it first claimed to have in the 1994 Decommissioning Policy Statement.²²

Underlying the Edwards Dam relicensing decision, as well as many other hydropower project relicensing decisions,²³ are several "unusual"²⁴ provisions in the Federal Water Power Act of 1920 ("FWPA"),²⁵ which was later amended and retitled as the Federal Power Act ("FPA").²⁶ These provisions give resource agencies—such as agencies within the Departments of Agriculture, Commerce, and the Interior—unfettered and absolute authority

F.E.R.C. ¶ 61,342, at 62,129 (1997). Such action by the Commission, although not unprecedented, was rare until recent years. In response to this order, Commission staff noted that FERC "has denied approximately 40 original licenses over the past eight years, compared to just two in all the previous years." *FERC Refuses to License Idaho Muni's Proposed Shelley Dam Project on the Snake River*, FOSTER ELECTRIC REP., Oct. 1, 1997, at 6, 6. The focus of this comment, however, is on new licenses granted in the course of the relicensing process.

21. See *Edwards Mfg. Co.*, 81 F.E.R.C. at 62,211. See generally Ellen Jovin, *Edwards Dam: A Watershed Decision for Hydropower*, ELECTRICAL WORLD, Mar. 1998, at 44. Of course, Congress has power to order the removal of federal projects. For example, Congress, in 1992, authorized the removal of two dams on the Elwha River in Washington. See *Elwha River Ecosystems and Fisheries Restoration Act of 1992*, Pub. L. No. 102-495, 106 Stat. 3173. Further, this comment does not explore congressional action concerning non-federal projects. Instead, this comment focuses solely on powers delegated to the Commission. See *supra* note 10.

22. Since December 14, 1994, the Commission has asserted that it has legal authority under the Federal Power Act to order project decommissioning when a hydropower license expires and to order the project owner to pay for dam removal. See *Project Decommissioning at Relicensing; Policy Statement*, 60 Fed. Reg. 339 (1995) (referenced in 18 C.F.R. § 2.24 (1998)). However, this issue has not been decided by the courts, and there is much room to dispute whether the Commission possesses the authority to decommission a licensed project. See generally Michael A. Swiger et al., *Paying for the Change: Can the FERC Force Dam Decommissioning at Relicensing?*, 17 ENERGY L.J. 163 (1996); Katherine Costenbader, Comment, *Damning Dams: Bearing the Cost of Restoring America's Rivers*, 6 GEO. MASON L. REV. 635 (1998).

23. See *infra* notes 30-33 and accompanying text.

24. *Bangor Hydro-Elec. Co. v. FERC*, 78 F.3d 659, 662 (D.C. Cir. 1996).

25. Pub. L. No. 66-280, 41 Stat. 1063 (codified as amended in 16 U.S.C. §§ 791a-823u (1994 & Supp. II 1996)).

26. Public Utility Act of 1935, Pub. L. No. 74-333, §§ 201-213, 49 Stat. 803, 838-63 (codified as amended in 16 U.S.C. §§ 791a-825u (1994 & Supp. II 1996)).

to impose conditions²⁷ upon projects within federal "reservations,"²⁸ thereby trumping the Commission's balancing efforts.

This "mandatory conditioning"²⁹ authority empowers resource agencies to impose license requirements—such as implementing plans to control erosion and sedimentation,³⁰ planting vegetation,³¹ maintaining minimum stream flows,³² and constructing fish passage facilities³³—so long "as the Secretary of the department under whose supervision such reservation falls shall deem necessary for the adequate protection and utilization" of the reservation.³⁴ This authority conflicts with the Commission's statutory duty under section 10(a)(1) of the FPA, which requires the Commission to license projects that are "best adapted . . . for the improvement and utilization of water-power development, for the adequate protection, mitigation, and enhancement of fish and wildlife . . . and for other beneficial public uses, including irrigation, flood control, water supply, and recreational . . . purposes."³⁵ Mandatory conditioning authority, therefore, splinters the Commission's statutory obligation. Moreover, because resource agencies seemingly fail to consider all interests when imposing these conditions, projects subject to mandatory

27. See, e.g., 16 U.S.C. § 797(e) (1994) (providing that licenses on any part of the public lands or reservations are subject to conditions of the Secretary of the department that has supervision over the reservation). Similar authority is found in elsewhere the FPA, as well in other federal statutes. See *infra* note 147. For a detailed discussion of this authority, see *infra* Part III.

28. "Reservations" include:

[N]ational forests, tribal lands embraced within Indian reservations, military reservations, and other lands and interests in lands owned by the United States, and withdrawn, reserved, or withheld from private appropriation and disposal under the public land laws; also lands and interests in lands acquired and held for any public purposes; but shall not include national monuments or national parks.

16 U.S.C. § 796(2) (1994). This definition incorporates a vast quantity of land, especially in the western United States, where the federal government holds hundreds of millions of acres. See SARAH BATES, *THE WESTERN PUBLIC LANDS: AN INTRODUCTION* 18-33 (W. Lands Rep. No. 1, Western Lands Program, Natural Resources Law Ctr., U. Colo. Sch. of Law, 1992); Dale A. Oesterle, *Public Land: How Much Is Enough?*, 23 *ECOLOGICAL L.Q.* 521, 523-24 (1996).

29. *Southern Cal. Edison Co. v. FERC*, 116 F.3d 507, 509 (D.C. Cir. 1997).

30. See, e.g., *City of Saxman*, 82 F.E.R.C. ¶ 62,041, at 64,058-59 (1998).

31. See, e.g., *Wisconsin Valley Improvement Co.*, 82 F.E.R.C. ¶ 61,100, at 61,373 (1998).

32. See, e.g., *City of Saxman*, 82 F.E.R.C. at 64,058-59.

33. See, e.g., *Bangor Hydro-Elec. Corp.*, 83 F.E.R.C. ¶ 61,037, at 61,080-81 (1998).

34. 16 U.S.C. § 797(e) (1994).

35. *Id.* § 803(a)(1).

conditioning authority may not be evaluated in a manner required under section 10(a) of the FPA.³⁶

Deciding how to relicense is a complex process, often fraught with important and sometimes competing interests³⁷ that have escalated tensions between those supporting non-development and those advocating power development.³⁸ Although dams impact ecosystems³⁹ and spawning runs of anadromous fish,⁴⁰ the FERC licensing process mitigates much of the impact by requiring dam owners to conform to a "comprehensive plan,"⁴¹ which often requires owners to construct fish passage facilities,⁴² enhance archeological and historical sites,⁴³ build recreational facilities,⁴⁴ protect fish and wildlife resources,⁴⁵ and maintain

36. See *infra* note 167 and accompanying text. There are similar jurisdictional conflicts between the Commission and the states, see, e.g., PUD No. 1 v. Washington Dep't of Ecology, 511 U.S. 700 (1994), but these conflicts are beyond the scope of this comment.

37. See Sawyer, *supra* note 1, at 12; Babbitt, *supra* note 4.

38. See Sawyer, *supra* note 1, at 12; Jeannie Anderson, *Endangered*, PUB. POWER, Jan.-Feb. 1995, at 34.

39. See generally COLLIER ET AL., *supra* note 5.

40. Benefits associated with dams have come at a heavy environmental cost, especially to anadromous fisheries. Dams have blocked upstream passage of fish returning from the ocean to spawn, reservoirs and turbines have resulted in heavy mortality of juvenile fish, and stream reaches have been drastically reduced in flow by hydroelectric diversions.

Sawyer, *supra* note 1, at 12; see also BLAINE HARDEN, A RIVER LOST: THE LIFE AND DEATH OF THE COLUMBIA 70-75 (1996); Olson, *supra* note 2, at 4-7 (identifying adverse effects dams have on fish populations and river systems).

41. 16 U.S.C. § 803(a)(1) (1994). See generally James C. Duda, Note, *The "Comprehensive Plan" Requirement: A Senator's Dream, a Congressional Mandate, and a Parameter for Agency Discretion*, 28 B.C. L. REV. 523 (1987) (discussing the Commission's requirement to develop comprehensive plans under section 10(a)(1) of the FPA).

42. See, e.g., City of Tacoma, 84 F.E.R.C. ¶ 61,107, at 61,551-53 (1998); Bangor Hydro-Elec. Co., 83 F.E.R.C. ¶ 61,037, at 61,080-81 (1998); International Paper Co., 84 F.E.R.C. ¶ 62,235, at 64,407-10 (1998); Otis Hydroelectric Co., 84 F.E.R.C. ¶ 62,234, at 64,391-93 (1998).

43. See, e.g., Idaho Water Resources Bd., 84 F.E.R.C. ¶ 61,146, at 61,806 (1998); Central Neb. Pub. Power & Irrigation Dist., 84 F.E.R.C. ¶ 61,079, at 61,352 (1998); City of Thief River Falls Mun. Utils., 84 F.E.R.C. ¶ 62,233, at 64,373-74 (1998); Southern Cal. Edison Co., 83 F.E.R.C. ¶ 62,241, at 64,391-92 (1998).

44. See, e.g., Southern Cal. Edison Co., 84 F.E.R.C. ¶ 62,166, at 64,267-69 (1998); Central Me. Power Co., 84 F.E.R.C. ¶ 62,090, at 64,126-27 (1998); Wisconsin Pub. Serv. Corp., 84 F.E.R.C. ¶ 62,023, at 64,029-31 (1998); Indiana Mich. Power Co., 84 F.E.R.C. ¶ 62,013, at 64,019-20 (1998).

45. See, e.g., Central Neb. Pub. Power & Irrigation Dist., 84 F.E.R.C. at 61,345-49; Bangor Hydro-Elec. Co., 83 F.E.R.C. ¶ 61,040, at 61,133-35 (1998); Central Me. Power Co., 82 F.E.R.C. ¶ 61,187, at 61,685-87 (1998); City of Tacoma, 84 F.E.R.C.

wetland habitat.⁴⁶ Because dam owners are required to fund these environmental projects that are often unrelated to the dam's environmental impact, decommissioning these hydropower projects often precludes environmental enhancement.

Along with facilitating environmental enhancement, dams generate hydropower, which is a superior source of energy.⁴⁷ It is also free from fuel costs and air pollution⁴⁸ typically associated with generators powered by fossil fuels.⁴⁹ Hydropower generation is responsible for ninety-six percent of renewable energy production in the United States.⁵⁰ Its continued viability, therefore, is integral "to our national energy security"⁵¹ and essential to achieving goals set at the recent United Nations Framework Convention on Climate Change in Kyoto, Japan.⁵² Aside from

¶ 62,220, at 64,339 (1998); Southern Cal. Edison Co., 83 F.E.R.C. ¶ 62,241, at 64,390-91 (1998); Whitewater Eng'g Corp., 83 F.E.R.C. ¶ 62,159, at 64,272-73 (1998); Indiana Mich. Power Co., 83 F.E.R.C. ¶ 62,119, at 64,197-98 (1998); South Carolina Elec. & Gas Co., 82 F.E.R.C. ¶ 62,098, at 64,152-55 (1998).

46. See, e.g., City of Tacoma, 84 F.E.R.C. ¶ 62,220, at 64,339 (1998); Kennebec Water Power Co., 84 F.E.R.C. ¶ 62,059, at 64,082-84 (1998).

47. See Pyle, *supra* note 5, at 115-16. Hydropower is "cheaper than other forms of electricity, its price is stable, and the plants are relatively simple and inexpensive to operate. Moreover, hydropower is a more reliable source because it is both domestically available and renewable and thus not subject to the vagaries of international politics and markets." *Id.* (footnote omitted).

48. See FERC, *Water Power: Use and Regulation of a Renewable Resource* (visited Oct. 10, 1998) <<http://www.ferc.fed.us/hydro/docs/waterpwr.htm>>.

49. Problems associated with fossil fuel development include acid rain, global warming, and toxic waste. See Pyle, *supra* note 5, at 115-16.

50. See FERC, *supra* note 48. Hydropower generation also saves "over 531 million barrels of oil each year." *Id.*

51. FERC *Hydroelectric Relicensing Procedures: Hearings Before the Subcomm. on Water and Power of the Senate Comm. on Energy and Natural Resources*, 105th Cong. 5 (1997) [hereinafter *Hearings*] (statement of Sen. Larry E. Craig). Senator Craig stated:

[W]ater power is important to the nation as a whole To maintain our energy security, our country needs to have a diverse mixture of sources of electric power. It is never wise to place all your eggs in one basket. Conventional water power is currently about 10% of the generation capacity of our nation. Fossil fuel generation is about 73% of our electric capacity; nuclear plants are about 13%; other renewables such as wind, solar and geothermal are about 2%; and pumped storage hydropower is about another 2%. The bulk of electric capacity in our country remains fossil fuel fired generation, but the sources of supply are diverse. We need to keep it as diverse as we can to remain as independent as we can, in power production. Hydropower and the process by which it is licensed is important to our national energy security.

Id.

52. Pursuant to the Kyoto treaty, "[b]y the year 2010, the United States [is to] reduce greenhouse emissions to 7 percent below the level of the year 1990." Gregg Easterbrook, *Hot Air Treaty*, U.S. NEWS & WORLD REP., Dec. 22, 1997, at 46, 46.

power and environmental benefits, hydropower projects provide flood control,⁵³ irrigation, and recreational benefits.⁵⁴

The Commission's relicensing process is central to balancing the interests enumerated in section 10(a) of the FPA. There are currently over seventy projects undergoing relicensing,⁵⁵ with 220 more to follow during the next fifteen years, which represents twenty percent of current hydropower generating capacity.⁵⁶ To continue operation, the owners of these projects must bear the costs associated with mandatory⁵⁷ relicensing.⁵⁸ As the electric industry experiences restructuring that will facilitate greater competition among power producers, hydropower may lose its attractiveness, because a competitive market will preclude these costs from being passed to customers.⁵⁹ Thus, even though hydropower is a superior source of energy, the current statutory scheme has created a costly process that may jeopardize continued use of this renewable source of energy.⁶⁰ Power developers and users, therefore, must choose between either utilizing fossil fuels or incurring the heavy expenses of hydropower licensing.⁶¹

53. See, e.g., Bob Baum, *How They Saved Downtown*, PORTLAND OREGONIAN, Feb. 12, 1996, at A1 (detailing how the Corps of Engineers coordinated dams in the Pacific Northwest during the floods of 1996, saving downtown Portland and preventing billions of dollars in damage).

54. See Judith A. Johansen, *Is Hydropower an Endangered Species?*, NAT. RESOURCES & ENV'T, Winter 1994, at 13, 14 ("Often, license conditions imposed on nonfederal projects by FERC . . . spell out nonpower uses that project owners must fund and accommodate such as visitor parks, recreational flow regimes, fish and wildlife facilities, and flood control regulations to protect local communities.").

55. See Howard Buskirk, *FERC's Hydro Budget Cuts at Odds with Rising Responsibilities*, ENERGY DAILY, Feb. 5, 1998, at 1, 2.

56. See *Hearings*, *supra* note 51, at 53 (statement of James J. Hoecker, Chairman, FERC).

57. See 16 U.S.C. §§ 797(e), 817 (1994).

58. See *infra* Part III.B.2.

59. See Johansen, *supra* note 54, at 14.

60. See *infra* Part III.B.2.

61. See Johansen, *supra* note 54, at 13 ("[H]ydropower, which historically has been the low-cost producer of electricity, finds itself in a competitive battle with alternative sources of power which are not subject to the same complexities required of hydropower project licensing or relicensing."). A deregulated market may intensify this situation:

Historically . . . a hydro facility's power production revenues have paid for many of the nonpower benefits associated with hydropower, such as recreation, water supply, irrigation, flood control, fish habitat and tourism. What will happen if, in a competitive power market, the power production revenues no longer yield sufficient cash flow to defray these costs?

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An efficient process where a single agency presides and balances projects according to all interests is integral to the continued viability of hydropower development.

This comment contends that the mandatory conditioning authority held by resource agencies is a major source of high relicensing costs and has created an overly burdensome relicensing process. Further, because no single agency ultimately reviews all conditions placed in a license, the Commission cannot fulfill its statutory responsibilities to balance projects according to the interests set forth in section 10(a) of the FPA⁶² and to grant new licenses on reasonable terms.⁶³ This comment, however, identifies two processes currently available to licensees that may improve the relicensing process and strike a balance between these complex and often competing interests. Part I of this comment describes the evolution of the FWPA and its successor, the FPA, and provides an overview of the current regulatory scheme. Part II traces the Commission's authority to balance hydropower projects pursuant to section 10(a) of the FPA. Part III analyzes how mandatory conditioning authority has splintered the Commission's statutory obligation and created a burdensome and costly licensing process. Finally, Part IV analyzes the Commission's fast-track licensing process and alternative dispute resolution techniques as alternatives to the standard relicensing process. Part IV concludes that these processes, although not ideal, may strike an appropriate balance between environmental protection and development of this critically important, renewable source of energy.

I. HISTORY AND OVERVIEW OF THE FPA

Although the authority for Congress to exercise power over navigable streams and their tributaries is rooted in the Commerce Clause of the Constitution,⁶⁴ "for a hundred years after the

F.E.R.C., Apr. 1, 1996, at 13, 13 (quoting former FERC Commissioner Donald Santa, Jr.).

62. See 16 U.S.C. § 803(a)(1) (1994).

63. See *id.* § 808(a)(1).

64. U.S. CONST. art. I, § 8, cl. 3. The Supreme Court has long held that the power to regulate commerce extends to the regulation of navigation. See *Gibbons v. Ogden*, 22 U.S. (9 Wheat.) 1, 21 (1824) ("It is not unreasonable to say, that what are called the waters of New-York, are, to purposes of navigation and commercial regulation, the waters of the United States. . . . [T]heir use, for those purposes,

Constitution was adopted, Congress left the regulation of water power entirely to the states."⁶⁵ Towards the end of the nineteenth century, however, Congress began to articulate policy for the navigable waters of the United States,⁶⁶ culminating with the FWPA.⁶⁷ Since its passage and subsequent amendments, the FWPA has provided the Commission with the authority to grant licenses to private parties and local governments to develop hydropower projects. This part outlines the historical development of the FWPA and FPA and provides an overview of the relicensing scheme.

A. *History and Evolution of the FWPA*

Three decades after the Civil War, Congress passed several statutes aimed at preventing obstruction of navigable waterways.⁶⁸ Because dams impede navigability, the earliest legislation concerning hydropower development required the approval of Congress, the Secretary of the Army, and the Chief of Engineers before a dam could be constructed in the navigable waters of the United States.⁶⁹ When technological advancements in the electric industry in the late nineteenth century increased interest in hydropower development,⁷⁰ Congress responded with

seemed to be entrusted to the exclusive power of Congress.").

65. Gifford Pinchot, *The Long Struggle for Effective Water Power Regulation*, 14 GEO. WASH. L. REV. 9, 9 (1945). "If there was any articulable policy during that time, it was clearly one of expansion, exploitation, and laissez-faire." WILLIAM F. FOX, JR., *FEDERAL REGULATION OF ENERGY* § 1.02, at 5 (1983).

66. See, e.g., Rivers and Harbors Act of 1890, ch. 907, 26 Stat. 426; Rivers and Harbors Act of 1884, ch. 229, 23 Stat. 133.

67. Pub. L. No. 66-280, 41 Stat. 1063 (1920) (codified as amended in 16 U.S.C. §§ 791a-823u (1994 & Supp. II 1996)).

68. See Rivers and Harbors Act of 1890, ch. 907, § 10, 26 Stat. 426, 454 (forbidding "the creation of any obstruction, not affirmatively authorized by law, to the navigable capacity of any waters, in respect of which the United States has jurisdiction"); Rivers and Harbors Act of 1884, ch. 229, 23 Stat. 133 (empowering the Secretary of War to remove unauthorized obstructions, including dams, bridges, and causeways); see also Pinchot, *supra* note 65, at 9.

69. See Act of Mar. 3, 1891, ch. 561, 26 Stat. 1101 (current version at 43 U.S.C. § 946 (1994)); Act of May 14, 1896, ch. 179, 29 Stat. 120 (current version at 43 U.S.C. § 957 (1994)). This approval process, however, was not always followed in practice. "[T]he secretary did not bother to issue formal permits, and hydroelectric generating structures were routinely erected on public lands or along navigable waters. Bills awarding power sites were routinely introduced in Congress and routinely approved." *Chemehuevi Tribe v. FPC*, 489 F.2d 1207, 1216 (D.C. Cir. 1973), *vacated*, 420 U.S. 395 (1975); see also Pinchot, *supra* note 65, at 11.

70. See *Chemehuevi Tribe*, 489 F.2d at 1217 ("With the development of

the General Dam Act of 1906 ("1906 Act")⁷¹ and its subsequent amendment in 1910.⁷² The 1906 Act "was intended by its framers to permit the development of water power while facilitating the improvement of stream navigability by the Government through the utilization of private capital."⁷³ The 1906 Act also created a system requiring potential hydropower developers to submit plans and specifications to the Secretary of War and Chief of Engineers for approval.⁷⁴

Although intended to encourage hydropower development through a simple approval process,⁷⁵ in practice this system proved unworkable. Jurisdictional conflicts in implementation created a "piecemeal, restrictive, negative approach"⁷⁶ that impeded hydropower development.⁷⁷ Due to the United State's involvement in World War I, which caused shortages in fossil

alternating current in the late 19th century, the problem of power loss over long distances was solved, and hydroelectric power sites on major rivers or public lands distant from large cities became common.").

71. Act of June 21, 1906, ch. 3508, 34 Stat. 386.

72. Act of June 23, 1910, ch. 360, 36 Stat. 593. "The amendment was inspired by President Roosevelt's vetoes of the Rainy River bill in 1908 and the James River bill in 1909 for the stated reasons, *inter alia*, that no charges or time limits had been set for these awards of permits for water power development in the named rivers." *Chemehuevi Tribe*, 489 F.2d at 1217 n.49 (citations omitted).

73. *Chemehuevi Tribe*, 489 F.2d at 1217.

74. See Act of June 21, 1906, § 1, 34 Stat. 386.

75. Under the 1910 Amendment, the Secretary of War and Chief of Engineers were to "consider the bearing of said structure upon a comprehensive plan for the improvement of the waterway over which it is to be constructed with a view to the promotion of its navigable quality and *for the full development of water power*." § 1, 36 Stat. at 594 (emphasis added). "If this bill be enacted in law it will only be necessary hereafter, in passing a bill to authorize the construction of a dam, to provide a simple sentence granting authority to construct a dam in accordance with the provisions of this act." H.R. REP. NO. 59-337, pt.1, at 1 (1906).

76. *Escondido Mut. Water Co. v. La Jolla Band of Mission Indians*, 466 U.S. 765, 773 (1984) (quoting *First Iowa Hydro-Elec. Coop. v. FPC*, 328 U.S. 152, 180 (1946)) (describing hydroelectric licensing methods before the enactment of the FPA); see also *Monongahela Power Co. v. Marsh*, 809 F.2d 41, 44 (D.C. Cir. 1987) (asserting that "jurisdictional and policy conflicts complicated the expansion of hydroelectric power"). On July 13, 1918, Representative Snell commented that, under the General Dam Act of 1910, "all water-power development under Federal control [had] practically ceased." 56 CONG. REC. 9118 (1918) (statement of Rep. Snell).

77. Between 1910 and 1920, only five federally authorized hydroelectric projects were constructed, which combined to produce 47.2 megawatts of electricity. See 1 FPC ANN. REP. 6 (1921) (concluding that "[t]he acts of 1906 and 1910 had proved practical failures").

fuels,⁷⁸ it became clear that the country needed comprehensive hydropower legislation.⁷⁹

Emerging in 1920 after a "prolonged and bitter" conflict,⁸⁰ the FWPA "established firmly the principle of federal regulation of water projects [and] . . . established a national policy in the use and development of water power on public lands and navigable streams."⁸¹ Proceeding "upon the theory that Congress could prevent absolutely all obstructions to navigable waters, and could therefore license such obstructions, making those licenses subject to certain terms and conditions,"⁸² Congress created, in the FWPA, the Federal Power Commission⁸³ to execute licenses for

78. When introducing the bill that eventually became the FPA, Senator Jones remarked:

If 10 years ago, instead of enacting restrictive laws which have prohibited development of our water powers, Congress had invited their development through fair and reasonable terms, the beginning of the World War would have found the United States with 20,000,000 [horsepower] developed hydroelectric power instead of 5,000,000. Indeed, it is not too much to say that Germany would have hesitated before entering the conflict with probability of having to face a Nation possessing such an enormous amount of harnessed physical force wherewith to back up its armies.

59 CONG. REC. 241 (1919) (statement of Sen. Jones). "The shortage of coal supply and the needs of industry and agriculture, during the war, caused a recognition that the hydro-electric development within the United States was below that of other industrial nations." John Franklin Shields, *The Federal Power Act*, 73 U. PA. L. REV. 142, 142 (1924).

79. See H.R. REP. No. 66-61, pt. 5, at 1 (1920).

80. JEROME G. KERWIN, *FEDERAL WATER-POWER LEGISLATION* 7 (1926). The FWPA

was the result of long years of intense controversy over the proper use and disposition of the nation's water resources. The battle lines between conservationists and public power on the one hand and private power interests on the other were clearly drawn in the early part of the century. The public power advocates saw the private interests as "power grabbers" who were "eager for plunder." Many wanted the water power projects to be controlled exclusively by state and local governments or other public entities. Others, however, pointed out that few public entities had the financial resources to undertake water power development and that private parties could not be expected to commit substantial funds to projects that might be taken from them at will.

Clark-Cowlitz Joint Operating Agency v. FERC, 775 F.2d 366, 376-77 (1985) (quoting Pinchot, *supra* note 65, at 16, 18), *vacated*, 787 F.2d 674 (1986).

81. Pinchot, *supra* note 65, at 19.

82. Robert P. Kneeland & Stark Ritchie, Comment, *Federal Power Act—Jurisdiction and Functions of the Federal Power Commission—Constitutional Limitations*, 39 MICH. L. REV. 976, 979 (1941).

83. Originally, the Commission consisted of the Secretaries of the Departments of War, Interior, and Agriculture, and three other term members. See *Federal Water Power Act of 1920*, Pub. L. No. 66-280, § 1, 41 Stat. 1063, 1063 (current version at 16 U.S.C. § 792 (1994)). Following a Senate investigation in 1930, however, Congress

hydropower development in the navigable waters of the United States.⁸⁴ This delegation gave the Commission "sweeping authority and a specific planning responsibility."⁸⁵

Central to the regulatory model established in the FWPA was congressional delegation of licensing authority to a single agency. This framework was reinforced in the seminal case *First Iowa Hydro-Electric Cooperative v. Federal Power Commission*.⁸⁶ Faced with whether a state agency could impose conditions on a hydropower license, the Supreme Court found that the Commission's licensing authority under the FPA was pervasive. Noting that "[a] dual final authority, with a duplicative system of state permits and federal licenses required for each project, would be unworkable,"⁸⁷ the Court held that the FPA conferred exclusive licensing authority on the Commission.⁸⁸ This holding placed the Commission in sole command of the hydropower licensing process, freeing it from impediments caused by any shared decision making with the states in the licensing process.⁸⁹

Forty-four years later, the Supreme Court affirmed the Commission's exclusive authority in *California v. FERC*.⁹⁰ In

amended the FPA to create an independent Commission. See 16 U.S.C. § 792 (1994). The conflicts discussed in this comment stem from mandatory conditioning authority held by resource agencies under section 4(e) of the FPA. See *infra* Part III. It has been suggested that before this change in Commission composition "there was less potential for conflict because the Secretaries of Agriculture and the Interior were also members of the Commission. It is possible, if not likely, Congress in 1930 simply overlooked this issue when it retained the section 4(e) conditioning provision." Gary D. Bachman & Michael A. Swiger, *Licensing in the 1990's: Can FERC Be a One-Stop Shop?*, in 2 WATERPOWER '89, at 735, 744 (Anthony J. Eberhardt ed., 1989).

84. Federal Water Power Act of 1920, Pub. L. No. 66-280, § 4(d), 41 Stat. 1063, 1065.

85. *Scenic Hudson Preservation Conference v. FPC*, 354 F.2d 608, 613 (2d Cir. 1965).

86. 328 U.S. 152 (1946).

87. *Id.* at 168.

88. See *id.* at 181-83.

89. The effect of *First Iowa* is well documented. See, e.g., Michael P. Healy, *The Attraction and Limits of Textualism: The Supreme Court Decision in PUD No. 1 of Jefferson County v. Washington Department of Ecology*, 5 N.Y.U. ENVTL. L.J. 382, 391-95 (1996); William L. Plouffe, *Forty Years After First Iowa: A Call for Greater State Control of River Resources*, 71 CORNELL L. REV. 833, 836-37 (1986); George William Sherk, *Approaching a Gordian Knot: The Ongoing State/Federal Conflict over Hydropower*, 31 LAND & WATER L. REV. 349, 352-53 (1996); Evan L. Delgado & Jon R. Vaught, Comment, *Hydroelectric Power, the Federal Power Act, and State Water Laws: Is Federal Preemption Water over the Dam?*, 17 U.C. DAVIS L. REV. 1179, 1194-96 (1984).

90. 495 U.S. 490 (1990).

California v. FERC, a licensee of a federally licensed hydropower project was faced with conflicting orders for minimum flow rate requirements⁹¹ from the Commission⁹² and the California State Water Resources Board.⁹³ In sustaining the Commission's order, the Court found:

By directing FERC to consider the recommendations of state wildlife and other agencies while providing FERC with final authority to establish license conditions (including those with terms inconsistent with States' recommendations), Congress has amended the FPA to elaborate and reaffirm *First Iowa's* understanding that the FPA establishes a broad and paramount federal regulatory role.⁹⁴

The principle set forth in *First Iowa* and reconfirmed in *California v. FERC* establishes that the Commission alone has jurisdiction over the licensing process set forth in the FPA.

B. Overview of the Regulatory Scheme

The licensing framework in the FPA has three principle features. First, it vests the Commission with exclusive and mandatory⁹⁵ authority within its jurisdiction to issue licenses for hydropower development.⁹⁶ This authority extends to projects that: (1) are located "across, along, or in any of the navigable waters of the United States"; (2) are located "upon any part of the public lands or reservations of the United States"; (3) "utilize the surplus water or water power from any Government dam"; or (4) are located on non-navigable waters in places where the Commis-

91. Minimum flow rate requirements dictate a rate of water flow "that must remain [available] in the bypassed section of the stream and that thus remains unavailable to drive the generators." *Id.* at 494.

92. The Commission's order required a flow rate of 11 cubic feet per second ("c.f.s.") from May through September, and 15 c.f.s. during the other months of the year. *See id.* at 495.

93. The California State Water Resources Control Board required a flow rate of 60 c.f.s. from March through June, and 30 c.f.s. during the other months of the year. *See id.* at 495-96.

94. *Id.* at 499.

95. *See* 16 U.S.C. §§ 797(e), 817 (1994).

96. The Supreme Court has upheld Congress's delegation to regulate navigable waters, which includes hydropower development. *See United States v. Appalachian Elec. Power Co.*, 311 U.S. 377, 426-27 (1940). *See generally* Burton K. Wheeler, *The Federal Power Commission as an Agency of Congress*, 14 GEO. WASH. L. REV. 1 (1945).

sion "find[s] that the interests of interstate or foreign commerce would be affected" by the project.⁹⁷ Second, the Commission is authorized to grant licenses for up to fifty years, the terms of which cannot be changed except by mutual consent of the Commission and licensee.⁹⁸ The "guarantee[d] fixed license terms" feature is included to protect the licensee's investment and ensure economic viability and project profitability through the term of the license.⁹⁹

The final feature addresses the Commission's responsibilities upon expiration of a license. The FPA contemplates five different possibilities:

(1) the United States can take over the project (this has never happened); (2) the Commission can issue a new license to the incumbent licensee; (3) the Commission can issue a new license to a new licensee (this has never happened where the incumbent licensee itself applies for a new license); (4) the Commission can issue a non-power license, which is a temporary license under which generating facilities are removed and project lands and non-power facilities are transferred to appropriate Federal, State, or municipal authorities (this has never happened); or (5) the Commission can accept surrender of the license, which licensees only rarely do.¹⁰⁰

Upon expiration of a license, a licensee typically seeks to obtain a new license for continued operation of the project.¹⁰¹ Before granting the new license, however, the licensee must complete the relicensing process,¹⁰² where the Commission determines whether it will issue a new license, and if so, what conditions the license will contain.¹⁰³ During the relicensing process, the Commission must balance projects according to "many legitimate but sometimes competing interests."¹⁰⁴ To identify and evaluate these interests, Congress and the Commission have formulated a three-phase relicensing process: "pre-filing consultation, initial process-

97. 16 U.S.C. § 817 (1994).

98. *See id.* § 799.

99. *See Southern Cal. Edison Co. v. FERC*, 116 F.3d 507, 513 (D.C. Cir. 1997).

100. *Hearings, supra* note 51, at 52 (statement of James J. Hoecker, Chairman, FERC).

101. *See id.*

102. *See* 16 U.S.C. § 808 (1994).

103. *See Hearings, supra* note 51, at 53 (statement of James J. Hoecker, Chairman, FERC).

104. *Id.*; *see also infra* Part II; *supra* notes 37-61 and accompanying text.

ing at the Commission, and environmental review.”¹⁰⁵ James Hoecker, Chairman of the Commission, recently summarized these three phases:

Pre-filing consultation begins as early as 3 to 5 years before the filing of the application and involves early consideration of the project proposal and studies of the project's impacts. Once an application is filed, the Commission issues public notice, giving interested parties appropriate time to request additional scientific studies and to intervene. The Commission then begins its environmental review, leading to an environmental assessment (EA) or environmental impact statement (EIS), as appropriate. After the applicant submits all the necessary information, the parties have been heard from, and the environmental documents have been finalized, the Commission issues an order acting on the relicense application.¹⁰⁶

After the Commission issues a new license, the licensee must comply with the license conditions and terms but is typically not subject to further modifications and conditions.¹⁰⁷

II. STRIKING A BALANCE: THE COMMISSION'S DUTY UNDER SECTION 10(a)

When Congress enacted the FWPA, section 10(a) required the Commission, when deciding whether and under what circumstances to grant a license, to determine whether a project was “best adapted to a comprehensive scheme of improvement and utilization for the purposes of navigation, of water-power development, and of other beneficial public uses.”¹⁰⁸ Although the

105. *Hearings*, *supra* note 51, at 53-54 (statement of James J. Hoecker, Chairman, FERC).

106. *Id.* at 54; *see also* 16 U.S.C. § 808 (1994); Procedures Relating to Takeover and Relicensing of Licensed Projects, 18 C.F.R. §§ 16.1-.26 (1998).

107. There are some instances, however, where terms and conditions can be imposed later. For example, the Secretaries of the Interior and Commerce have authority to prescribe fish navigation facilities. *See* 16 U.S.C. § 811 (1994). Almost as a matter of course, when these Secretaries do not exercise this authority during the relicensing process, they reserve the authority to do so later, and the Commission has sanctioned this practice. *See* Wisconsin Pub. Serv. Corp., 62 F.E.R.C. ¶ 61,095, at 61,683 (1993), *aff'd sub. nom* Wisconsin Pub. Serv. Corp. v. FERC, 32 F.3d 1165 (7th Cir. 1994).

108. Pub. L. No. 66-280, § 10(a), 41 Stat. 1063, 1068 (1920) (current version at 16 U.S.C. § 803(a)(1) (1994)).

language and meaning of this section have expanded in the nearly eighty years since its original enactment, the underlying duty is clear: the Commission is statutorily obliged to consider all interests enumerated in section 10(a) to ensure that projects are "best adapted" to those interests.¹⁰⁹ This part traces the history and development of section 10(a), which is best reviewed over three periods. First, as originally enacted, section 10(a) applied only to drive the policy of providing power to an expanding economy.¹¹⁰ Next, as the public interest moved towards recreational and preservational interests, Congress, and then the courts, required the Commission to consider these interests under section 10(a).¹¹¹ Finally, the Electric Consumers Protection Act of 1986 ("ECPA")¹¹² codified these interests by requiring the Commission to place preservational values on the same footing as power development.¹¹³

A. Section 10(a) of the FWPA

In the first years of its existence, the Commission was concerned solely with facilitating development of hydropower resources "to meet the needs of an expanding economy,"¹¹⁴ and its implementation of section 10(a) reflected this policy. For example, the Commission did not consider recreation to be a

109. 16 U.S.C. § 803(a)(1) (1994).

110. See *infra* notes 114-16 and accompanying text.

111. See *infra* notes 117-43 and accompanying text.

112. Pub. L. No. 99-495, 100 Stat. 1243 (1986) (codified in scattered sections of 16 U.S.C.).

113. See *infra* notes 144-46 and accompanying text.

114. *FPC v. Union Elec. Co.*, 381 U.S. 90, 99 (1965). President Theodore Roosevelt foreshadowed this purpose in a veto message for a bill under the General Dam Act:

We are now at the beginning of great development in water power. Its use through electrical transmission is entering more and more largely into every element of the daily life of the people. Already the evils of monopoly are becoming manifest; already the experience of the past shows the necessity of caution in making unrestricted grants of this great power.

. . . .
It should also be the duty of some designated official to see to it that in approving the plans the maximum development of the navigation and power is assured, or at least that in making the plans these may not be so developed as ultimately to interfere with the better utilization of the water or complete development of the power.

Id. at 98 n.11 (quoting 42 CONG. REC. 4698 (1909)). The Court referred to this veto statement as the "keynote" of the movement toward the enactment of the FPA. See *id.*

beneficial public use. In its first annual report, it determined that its licensing jurisdiction did not extend "over either the construction of a dam in tidal waters for the purpose of allowing bathing and boating 'and to cover unsightly flats' or the stringing of transmission lines because neither project was connected with the development of water power."¹¹⁵ In fact, the Commission limited its jurisdiction "to the consideration of projects designed to produce water power. Structures or diversions having any other purpose, unless incidental to works constructed for power purposes or a necessary part of a comprehensive scheme of development, are not within the jurisdiction of the Commission."¹¹⁶

B. Evolution and Expansion of Section 10(a)

Fifteen years after the passage of the FWPA, however, Congress widened the scope of section 10(a). As amended and renamed by the Public Utility Act of 1935,¹¹⁷ the FPA required the Commission to balance "recreational purposes" when considering a license application.¹¹⁸ Congressional recognition that recreation was within the public interest expanded the Commission's role in project licensing, as the Commission could no longer focus solely on hydropower development.

When granting a license, the Commission can require a licensee to modify the project, thus adapting the project to achieve

115. *Chemehuevi Tribe v. FPC*, 489 F.2d 1207, 1224 (D.C. Cir. 1973) (quoting 1 FPC ANN. REP. 138, 155 (1921)), *vacated*, 420 U.S. 395 (1975).

116. 1 FPC ANN. REP. 51-52 (1921). The Commission's narrow focus on hydropower development is illustrated in *Pacific Gas & Electric Co.*, 1 F.P.C. 527 (1938). In *Pacific Gas*, the license applicant sought to construct a dam for a hydropower project, and the plan included a diversion from the South Fork American River in California. *See id.* at 531. Homeowners along the river opposed the project, claiming that recreational activities in and along the river were growing rapidly, that the diversion would eliminate this recreation, and thus section 10(a) precluded the Commission from issuing a license. *See id.* In deciding this issue, the Commission first observed that "[a] distinction must be made between those provisions in the licenses which are left entirely to the discretion of the . . . statute itself." *Id.* at 530. After quoting section 10(a), the Commission dismissed the homeowners' contentions, finding that they had not shown that the elimination of recreation along the South Fork American River "would not be in accord with the provisions of section 10(a) of the Federal Power Act." *Id.* at 531.

117. Pub. L. No. 74-333, 49 Stat. 803 (1935) (codified as amended in scattered sections of 16 U.S.C.); *see also supra* notes 25-26 and accompanying text.

118. § 206, 49 Stat. at 842 (current version at 16 U.S.C. § 803(a)(1) (1994)).

balance between potentially conflicting interests.¹¹⁹ For example, in *City of Tacoma*,¹²⁰ the licensee applied for a license to construct two hydropower dams on the Cowlitz River.¹²¹ In evaluating the application, the Commission balanced conflicting interests of power maximization and other public interests, including recreation and the preservation of anadromous fish.¹²² The Commission first observed that the "severe power shortage" of the Pacific Northwest was of national concern, particularly for military reasons.¹²³ The Commission found, on the other hand, that the Cowlitz River provided important spawning habitat for anadromous fish¹²⁴ and offered numerous recreational opportunities.¹²⁵

The Commission approved the license, and fulfilled its balancing mandate under section 10(a) by modifying the project in a manner that protected recreational and fishery interests. First, the Commission required the licensee to make the two reservoirs "easily accessible by a state highway" and to offer "substantial recreational opportunities to people from local and distant areas."¹²⁶ Second, the Commission required the licensee to install fish screens, ladders, and traps.¹²⁷

Even though the Commission can require licensees to implement modifications to ensure compliance with section 10(a), the addition of recreational interests in this section completely eliminated some proposed projects from development. In *Namekagon Hydro Co.*,¹²⁸ for example, the applicant sought an original license to construct a dam on the Namekagon River in Washburn County, Wisconsin.¹²⁹ During the licensing process, the Commission first considered the economic potential of the

119. *See id.*

120. 10 F.P.C. 424 (1951), *aff'd sub nom.* Washington Dep't of Game v. FPC, 207 F.2d 391 (9th Cir. 1953).

121. *See id.* at 425.

122. *See id.* at 431-32.

123. *See id.* at 425. Other benefits that the Commission found included flood control and enhanced navigation. *See id.* at 426.

124. *See id.* at 426.

125. *See id.* at 429.

126. *Id.* at 433-34.

127. *See id.* at 441.

128. 12 F.P.C. 203 (1953), *aff'd sub nom.* Namekagon Hydro Co. v. FPC, 216 F.2d 509 (7th Cir. 1954).

129. *See id.*

project.¹³⁰ It concluded that the region had a market and need for the power, that the applicant could finance the construction, and that the proposed project would be the most economical source of available power.¹³¹

However, the Commission observed that the Namekagon River was located in one of the principal recreational areas of the country and was one of the most extensively used rivers for canoeing and small-mouth bass fishing.¹³² The Commission also noted that people from highly populated, surrounding areas (including Milwaukee, Chicago, St. Paul, and Minneapolis) enjoyed the recreational and scenic values of the Namekagon River.¹³³ After balancing these competing interests, the Commission held that the proposed project was "not best adapted for beneficial public uses of the Namekagon River, including the use of the stream for recreational purposes," and denied the license application.¹³⁴

The examples of *City of Tacoma* and *Namekagon Hydro Co.* illustrate how the Public Utility Act expanded the Commission's role when reviewing license applications. As it was required to consider recreational interests, the Commission could no longer focus solely on hydropower development. As a result, project applications were either modified or altogether denied in order to comply with section 10(a) of the FPA.

Over thirty years after the Public Utility Act of 1935, the Supreme Court, in *Udall v. Federal Power Commission*,¹³⁵ further expanded the Commission's balancing requirements under section 10(a). The controversy in *Udall* arose when the Commission granted a license to Pacific Northwest Power Company to construct a dam on the Snake River just upstream from its confluence with the Salmon River, near the Idaho-Oregon border.¹³⁶ The Secretary of the Interior urged the Commission to delay licensing approval until "means of protecting the salmon and other fisheries were studied,"¹³⁷ but the Commission denied

130. See *id.* at 204-05.

131. See *id.*

132. See *id.* at 205-06.

133. See *id.* at 206.

134. *Id.* at 208.

135. 387 U.S. 428 (1967).

136. See *Pacific Northwest Power Co.*, 31 F.P.C. 1051, 1051-52 (1964), *vacated*, 38 F.P.C. 217 (1967).

137. *Udall*, 387 U.S. at 432.

this request.¹³⁸ The Secretary then urged the Commission to recommend to Congress that the federal government should construct the project, arguing that, under federal control, the project would provide greater flexibility to manage fishery resources.¹³⁹ Nevertheless, the Commission denied this request and granted the license to Pacific Northwest Power Company.¹⁴⁰

On appeal, the Supreme Court observed that the Commission failed to consider fishery issues during the licensing process and that this failure violated section 10(a) of the FPA.¹⁴¹ In reaching its decision, the Court broadly construed section 10(a), holding that the "public interest" provision includes "preserving reaches of wild rivers and wilderness areas, the preservation of anadromous fish for commercial and recreational purposes, and the protection of wildlife."¹⁴² Since *Udall*, the Commission has been required to balance projects according to environmental impact during the licensing process.¹⁴³

C. Modern Application of Section 10(a)

With the passage of the ECPA in 1986, Congress again broadened the Commission's scope under section 10(a). The ECPA requires the Commission to balance projects so that

the project adopted . . . shall be such as in the judgment of the Commission will be best adopted . . . for the improvement and utilization of water-power development, for the adequate protection, mitigation, and enhancement of fish and wildlife (including related spawning grounds and habitat), and for

138. *See id.*

139. *See id.* at 432-33.

140. *See id.*

141. *See id.* at 437.

142. *Id.* at 450. In reaching this conclusion, the Court found:

The importance of salmon and steelhead in our outdoor life as well as in commerce is so great that there certainly comes a time when their destruction might necessitate a halt in so-called "improvement" or "development" of waterways. The destruction of anadromous fish in our western waters is so notorious that we cannot believe that Congress through the present Act authorized their ultimate demise.

Id. at 437-38 (footnotes omitted).

143. *See* Lydia T. Grimm, Comment, *Fishery Protection and FERC Hydropower Relicensing Under ECPA: Maintaining a Deadly Status Quo*, 20 ENVTL. L. 929, 930 (1990).

other beneficial public uses, including irrigation, flood control, water supply, and recreational . . . purposes.¹⁴⁴

In addition, by requiring the Commission to "give *equal consideration* to the purposes of energy conservation, the protection, mitigation of damage to, and enhancement of, fish and wildlife (including related spawning grounds and habitat), the protection of recreational opportunities, and the preservation of other aspects of environmental quality,"¹⁴⁵ the ECPA places the interests of environmental preservation on the same footing as the need for power.¹⁴⁶

In summary, since the passage of the FPA in 1920, interests regarding the value and impact of hydropower projects have changed. As these interests have evolved, Congress and the Supreme Court have responded by expanding the Commission's scope under section 10(a). This expansion has given the Commission broad power and responsibility to balance equally between

144. 16 U.S.C. § 803(a)(1) (1994).

145. *Id.* § 797(e) (emphasis added). "When Congress amended the FPA in 1986 [it] made explicit the obligation on the Commission to give environmental considerations equal weight to that accorded [to] power and irrigation concerns . . ." *Platte River Whooping Crane Critical Habitat Maintenance Trust v. FERC*, 876 F.2d 109, 114 n.6 (D.C. Cir. 1989).

146. Although it may be true that "[o]ne of the key objectives of the ECPA was to remedy FERC's 'less than satisfactory' history of according environmental factors less weight than power production concerns in licensing," *Platte River Whooping Crane*, 876 F.2d at 117 (citing H.R. REP. NO. 99-507, at 17 (1986), *reprinted in* 1986 U.S.C.C.A.N. 2496, 2503), courts have observed that "[e]qual consideration' [under the ECPA] is not the same as 'equal treatment.'" *California v. FERC*, 966 F.2d 1541, 1550 (9th Cir. 1992). Recent FERC orders, however, debunk the myth that the agency ignores environmental considerations. In fact, these recent orders suggest that the Commission, by failing to equally consider the values of power development, has ignored the requirements set forth in the ECPA and has instead turned in completely the opposite direction.

For example, in relicensing the Cushman Project, located on the North Fork of the Skokomish River in Mason County, Washington, the Commission exercised its balancing authority under section 10(a)(1) and required the licensee, among other things, to construct upstream and downstream fish passage facilities at both dams at the project site. *See City of Tacoma*, 84 F.E.R.C. ¶ 61,107, at 61,552-53 (1998). Further, the Commission required flushing flows that were 33 percent higher than and three times as frequent than those proposed by the licensee. *See id.* at 61,540-42. These and other conditions, imposed under section 10(a)(1), virtually amounted to a "de facto decommissioning." *Id.* at 61,603 (Bailey, Comm'r, dissenting). The Commission imposed these conditions even though it recognized that the burdens imposed by the license conditions may force the licensee to surrender its license. *See id.* at 61,570-76. *See generally* Howard Buskirk, *FERC's Cushman Dam Relicensing Order Roils Hydro Industry*, *ENERGY DAILY*, July 31, 1998, at 1.

wildlife and habitat protection, recreation, and the need for energy development.

III. MANDATORY CONDITIONING AUTHORITY

Despite the Commission's mandate to balance equally between environmental protection and energy development, several provisions in the FPA give resource agencies unilateral authority to impose conditions in a license.¹⁴⁷ These provisions reduce the Commission's authority to balance projects pursuant to section 10(a) and to make final decisions regarding license conditions. This part discusses the scope of mandatory conditioning authority held by resource agencies under section 4(e) and analyzes how this authority has affected the licensing process and hydropower development.

A. *Scope of Mandatory Conditioning Authority*

Section 4(e) provides that "licenses . . . issued within any reservation . . . shall be subject to and contain such conditions as the Secretary of the department under whose supervision such reservation falls shall deem necessary for the adequate protection

147. In addition to section 4(e), *see infra* Part III.A, several provisions, both within and outside the FPA provide federal and state agencies with mandatory conditioning authority. Section 18 of the FPA provides that the Secretary of the Interior or the Secretary of Commerce may prescribe fish navigation facilities. *See* 16 U.S.C. § 811 (1994). Section 30 of the FPA provides that the Fish and Wildlife Service, the National Marine Fisheries Service, and applicable state agencies have authority to impose conditions "to prevent loss of, or damage to, [fish and wildlife] resources" for projects qualifying as an exemption under the FPA. *Id.* § 823a(c). Section 404 of the Clean Water Act ("CWA") requires licensees to obtain a permit from the Army Corps of Engineers before discharging dredged or fill material into the navigable waters of the United States, *see* 33 U.S.C. § 1344 (1994), and it has been held that this requirement applies to hydropower relicensings. *See Monongahela Power Co. v. Marsh*, 809 F.2d 41, 53 (D.C. Cir. 1987). Section 401 of the CWA requires licensees to obtain a water quality certification from the state within which the hydropower project is located. *See* 33 U.S.C. § 1341 (1994); *PUD No. 1 v. Washington Dep't of Ecology*, 511 U.S. 700 (1994). Finally, section 501(a)(4) of the Federal Land Policy and Management Act requires licensees to obtain rights-of-way permits on lands under the jurisdiction of the Secretaries of the Interior and Agriculture. *See* 43 U.S.C. § 1761(a)(4) (1994). *See generally* Thomas K. Snodgrass, Comment, *Bypass Flow Requirements and the Question of Forest Service Authority*, 70 U. COLO. L. REV. 641 (1999). Because section 4(e) of the FPA has been the subject of much discussion, this comment focuses on its development; a similar analysis, however, would apply to these other provisions that provide mandatory conditioning authority.

and utilization of such reservations."¹⁴⁸ The issues regarding the interpretation of this section include: (1) whether the Commission can modify conditions imposed by resource agencies; and (2) whether this conditioning authority applies to new licenses sought during the relicensing process.

The Supreme Court addressed the first issue in *Escondido Mutual Water Co. v. La Jolla Band of Mission Indians*.¹⁴⁹ In *Escondido*, the Court held that the Commission is without power to determine whether section 4(e) conditions are valid.¹⁵⁰ Further, the Court held that the Commission may not modify these conditions but must "adopt them as its own."¹⁵¹ Therefore, if an applicant seeks an original license for a project on a federal reservation, and if a supervisory secretary imposes conditions that are "necessary for the adequate protection and utilization of such reservation," the original license issued by the Commission must contain those conditions.¹⁵²

However, *Escondido* left unresolved the second issue of whether mandatory conditioning authority extends to new licenses granted in the Commission's relicensing process. Before *Escondido*, the Commission's policy was that section 4(e) did not apply to relicensing; rather, the Commission maintained that "new licenses [granted in the relicensing process] are issued under [s]ection 15 rather than under [s]ection 4(e)."¹⁵³ Five years after *Escondido*, the Commission reversed this policy. In *City of Pasadena Water & Power Department*,¹⁵⁴ the Commission found that section 4(e) "is not by any express terms limited to original licensing."¹⁵⁵ Finding that "relicensing may involve improvements to the previously licensed project and that conditions, with respect to the resources utilized by the project, may well have changed over time," the Commission held that section 4(e) "should be read as applying to relicensing."¹⁵⁶

148. 16 U.S.C. § 797(e) (1994).

149. 466 U.S. 765 (1984).

150. *See id.* at 776-79.

151. *Id.* at 778.

152. *City of Tacoma*, 84 F.E.R.C. ¶ 61,107, at 61,546 (1998).

153. *Pacific Gas & Elec. Co.*, 53 F.P.C. 523, 526 (1975) (footnote omitted).

Section 15 of the FPA governs the relicensing and renewal of projects. *See* 16 U.S.C. § 808 (1994).

154. 46 F.E.R.C. ¶ 61,004, at 61,006 (1989).

155. *Id.* at 61,011.

156. *Id.* at 61,012.

This issue was finally reviewed in *Southern California Edison Co. v. FERC*.¹⁵⁷ In *Southern California Edison*, the Court of Appeals for the District of Columbia held that the Commission's policy to be a "rational and consistent" interpretation of section 4(e),¹⁵⁸ and that mandatory conditioning authority under section 4(e) applies to new licenses issued in the Commission's relicensing process.¹⁵⁹ Thus, after *Escondido* and *Southern California Edison*, not only is the Commission without power to review conditions imposed by resource agencies under section 4(e), but this conditioning authority also extends to the relicensing process in section 15 of the FPA. Resource agencies accordingly possess broad power to impose conditions upon projects within federal reservations, which effectively restricts the Commission from performing its mandated balancing function.

B. The Effects and Costs of Mandatory Conditioning Authority upon Relicensing

The current statutory and regulatory landscape has seriously impeded the relicensing process. Many large hydropower projects received original licenses before the mandates introduced by the ECPA.¹⁶⁰ Consequently, when the Commission faces relicensing decisions, it must retrofit these projects—most of which were not designed for recreation, wildlife preservation, and other non-developmental interests—in order to meet the requirement of section 10(a). Mandatory conditioning authority has compounded and complicated this process. In situations where the Commission objects to conditions imposed by resource agencies pursuant to section 4(e), the Commission is left with only two choices: it can either issue the license with the conditions or deny the license application in its entirety.¹⁶¹ The effect of this structure presents difficulties to licensees challenging conditions, increases the relicensing time frame, and reduces power generation. All of these effects increase costs of hydropower development.

157. 116 F.3d 507 (D.C. Cir. 1997).

158. *Id.* at 517.

159. *See id.* at 509.

160. *See supra* notes 144-46 and accompanying text.

161. *See Escondido Mut. Water Co. v. La Jolla Band of Mission Indians*, 466 U.S. 765, 778 n.20 (1984).

1. Effects of Mandatory Conditioning Authority

If a licensee disagrees with conditions imposed by resource agencies pursuant to mandatory conditioning authority, its only option is to challenge them in the courts of appeals.¹⁶² But this is not an attractive option, as the deferential standard of review will most likely accord the conditioning decision of resource agencies.¹⁶³ Indeed, reviewing courts must "sustain the conditions if they are consistent with law and supported by the evidence presented to the Commission."¹⁶⁴ Resource agencies thus have wide discretion in imposing license conditions, even when conditions are not based on scientific techniques¹⁶⁵ or extend well

162. See 16 U.S.C. § 825l(b) (1994) (providing that aggrieved licensees "may obtain a review of such order in the United States court of appeals for any circuit wherein the licensee . . . has its principal place of business, or in the United States Court of Appeals for the District of Columbia").

163. See, e.g., *Southern Cal. Edison Co.*, 116 F.3d at 517. But see *Bangor Hydro-Elec. Co. v. FERC*, 78 F.3d 659 (D.C. Cir. 1996) (striking down mandatory conditions imposed by the United States Fish and Wildlife Service). For a discussion of *Bangor Hydro-Elec. Co.*, see *infra* note 165.

164. *Escondido*, 466 U.S. at 778 n.20.

165. See, e.g., *Bangor Hydro-Elec. Co.*, 78 F.3d at 659. In *Bangor Hydro-Electric*, licensee Bangor Hydro-Electric Co. ("Bangor") sought a new license for a project located on the Union River in Ellsworth, Maine. During the relicensing process, the United States Fish and Wildlife Service ("FWS") invoked section 18 of the FPA and required the licensee to construct permanent upstream fish passage facilities within five years. See *Bangor Hydro-Elec. Co.*, 70 F.E.R.C. ¶ 61,078, at 61,210 (1995); *supra* note 147 (discussing mandatory conditioning under FPA section 18). The FWS asserted that the licensee's plan of trapping and trucking alewife runs was not "a practical method of handling alewife runs of the size that could be achieved in the river." *Id.* at 61,211. Bangor estimated that construction of these facilities would cost up to \$2 million and annual costs in lost power generation would cost \$30,000. See *Bangor Hydro-Elec. Co.*, 78 F.3d at 661. Nevertheless, the Commission, relying upon *Escondido*, imposed the condition on the licensee. See *Bangor Hydro-Elec. Co.*, 70 F.E.R.C. at 61,214-15.

Upon appeal to the Court of Appeals for the District of Columbia, FWS asserted that the passage facilities were essential to meet its goal of establishing a run of 2.3 million alewife. See *Bangor Hydro-Elec. Co.*, 78 F.3d at 663. To meet this goal, the FWS asserted that "a minimum of 315,000 and perhaps as many as 800,000 adult alewives should be returned to upstream spawning areas." *Id.* at 663. Although the court conceded that trucking was not a viable option for such a large number of fish, it found no supporting evidence that such a large number of fish were necessary to achieve FWS's goal. See *id.* at 664. Bangor, on the other hand, showed that

[d]ata from other river systems indicate that there is not a strong relationship between the escapement rate and alewife run; small spawning escapements often produce large runs. In the Union River itself, an escapement of 12,720 produced an alewife harvest of 1,026,200, while the largest escapement, 22,200, produced a harvest of 832,900.

Id. The court held that although FWS's policy of preferring fishways to other means

beyond the original purposes of the reservation.¹⁶⁶ As a result, it appears that resource agencies, unlike the Commission, generally fail to balance mandatory conditions in the public interest before imposing them upon licensees.¹⁶⁷

The current statutory landscape often increases the time it takes to relicense a project, decreases the amount of available power at projects, and burdens applicants with unanticipated costs. For example, a recent study by the United States Department of Energy indicated that, before the passage of the ECPA, the relicensing process for a major project¹⁶⁸ took an average of nine months to complete.¹⁶⁹ The average relicensing time increased to approximately three years in 1987, and to 4.5 years between 1994 and 1996.¹⁷⁰ The process, in some instances, has

of escapement is entitled to deference, there was no reasonable scientific basis for FWS's requirement in this case. *See id.* Accordingly, the court struck down the Commission's order requiring the fishway. *See id.*

166. *See* Southern Cal. Edison Co. v. FERC, 116 F.3d 507, 518 (D.C. Cir. 1997) (holding that the FPA "unambiguously permits the departments to rely on a broader group of purposes" than "protecting the original purposes of the reservations in which . . . projects are located"); *see also* Teresa Rice, *Beyond Reserved Water Rights: Water Resource Protection for the Public Lands*, 28 IDAHO L. REV. 715, 741-42 (1992) (asserting that mandatory conditioning authority may overcome the limitations of reserved water rights on public lands).

This authority, however, has expanded to include conditions completely unrelated to the purpose of the reservation. For example, in *Southern California Edison Co.*, 83 F.E.R.C. ¶ 62,241, at 64,376 (1998), the Forest Service included a mandatory condition prohibiting the licensee from engaging in discriminatory employment practices proscribed under the Civil Rights Act of 1964. *See id.* at 64,401. The Director of Hydropower Licensing questioned whether this condition bore "any relationship to the adequate protection and utilization of the reservation," as required under section 4(e). *Id.* at 64,379 n.14. Further, the Director opined that the Commission could not enforce this condition. *See id.* (citing NAACP v. FPC, 425 U.S. 662 (1976)). Nevertheless, the Director, citing *Escondido*, included the condition as part of the license. *See id.*

167. It has not yet been decided whether resource agencies, when imposing mandatory conditions, are required to balance in the public interest in a manner required under section 10(a)(1) of the FPA.

168. A major project is one that has "a total installed generating capacity [of] more than . . . 1.5 [megawatts]." 18 C.F.R. § 4.30(b)(16)(i) (1998).

169. *See* HUNT & HUNT, *supra* note 7, at 2-7.

170. *See id.* at 2-8.

taken as long as eleven,¹⁷¹ eighteen,¹⁷² twenty,¹⁷³ and even twenty-four years.¹⁷⁴

Mandatory conditions also have the effect of reducing the amount of power generated by these facilities. For example, conditions imposed upon licensees often come in the form of "increas[ing] minimum bypass flows, releas[ing] water through mandated fish passage facilities, restrict[ing] reservoir fluctuation, or limit[ing] downstream release flow fluctuations."¹⁷⁵ Because bypass flows result in less water flowing through turbines,¹⁷⁶ these conditions cause a reduction in project generation capacity. Since 1986, ninety percent of all projects lost an average of six percent of power generation during the relicensing process,¹⁷⁷ which has contributed to a cumulative loss of 5.4 billion kilowatt hours per year since 1980.¹⁷⁸ If the current trend

171. The Kingsley Dam Project (Project No. 1417) received an original 50-year license on July 28, 1937, *see* 18 FPC ANN. REP. 47-48 (1937), which expired on July 29, 1987. *See* Central Neb. Pub. Power & Irrigation Dist., 43 F.E.R.C. ¶ 61,225, at 61,577 (1988). A new license was not issued until July 29, 1998, exactly 11 years later. *See* Central Neb. Pub. Power & Irrigation Dist., 84 F.E.R.C. ¶ 61,079, at 61,331 (1998).

172. The Skagit River Project (Project No. 553) received an original 50-year license on October 28, 1927, *see* 8 FPC ANN. REP. 190 (1928), which expired on October 27, 1977. *See* City of Seattle, 71 F.E.R.C. ¶ 61,159, at 61,527 n.1 (1995), *modified*, 75 F.E.R.C. ¶ 61,319 (1996). A new license was not issued until May 16, 1995, nearly 18 years later. *See id.* at 61,527.

173. The Shawano Hydro Electric Project (Project No. 710) received an original 50-year license on July 20, 1927, *see* 8 FPC ANN. REP. 191 (1928), which expired on July 19, 1977. *See* Wisconsin Power & Light Co., 79 F.E.R.C. ¶ 61,181, at 61,844 (1997). A new license was not issued until May 16, 1997, nearly 20 years later. *See id.*

174. The Cushman Hydroelectric Project (Project No. 460) received an original 50-year license on June 4, 1924, *see* 4 FPC ANN. REP. 18, 145 (1924), which expired in June 1974. *See* City of Tacoma, 67 F.E.R.C. ¶ 61,152, at 61,437 n.2 (1994), *aff'd*, 71 F.E.R.C. ¶ 61,381 (1995). A new license was not issued until July 30, 1998, over 24 years later. *See* City of Tacoma, 84 F.E.R.C. ¶ 61,107, at 61,535 (1998).

175. HUNT & HUNT, *supra* note 7, at 3-1.

176. *See* Roger Fillion, *Traders Wheel, Deal in Electricity*, DENV. POST, Nov. 15, 1998, at L1 ("Salmon spawning in the Columbia River in the Pacific Northwest can mean that water levels there must be higher to accommodate the eggs. That can translate into lower supplies of hydropower in the region, because not as much water is available for generating electricity.").

177. *See* HUNT & HUNT, *supra* note 7, at 3-8 to 3-9.

178. *See id.* at E-2. To comprehend this loss, the following definition and comparison is helpful:

A watt is the electrical unit of power, or rate of doing work, and is related to the concept of horse power. One watt hour is one watt of power supplied on a continuous basis for one hour. One kilowatt hour is 1,000 watt hours; one gigawatt hour is 1 billion watt hours. To make an inter-fuel comparison, one barrel of oil contains the same amount of energy as

continues, another 5.3 billion will be lost during the project relicensing process through the year 2010.¹⁷⁹

2. Costs of Mandatory Conditioning Authority

These effects of mandatory conditioning authority generate significant costs. In addition to the financial burden of "borrow[ing] a fortune to pay lawyers, economists, accountants, archaeologists, historians, engineers, recreational consultants, environmental consultants, biologists and others,"¹⁸⁰ licensees face additional costs associated with mandatory conditioning authority. For instance, much of the information sought by federal and state agencies duplicates the Commission's requirements pursuant to the National Environmental Policy Act of 1969 ("NEPA").¹⁸¹ Costs associated with these multiple burdens and overlapping authority are borne by licensees.¹⁸² In addition, because a licensee cannot accurately predict what mandatory conditions will be imposed, "[m]any licensees have no reliable means to determine what their project's hydroelectric energy is going to cost and whether it will be marketable in an environment of retail competition."¹⁸³ It is clear that mandatory conditions have exacted a huge toll on the economic viability of hydropower projects. Further, as the relicensing process increases in length, licensing costs continue to rise. In fact, licensing costs have doubled since 1987.¹⁸⁴ Remarkably, this does not include the loss in revenue associated with loss in power generation,¹⁸⁵ which, at

540 kilowatt hours.

FOX, *supra* note 65, § 30.01, at 750.

179. See HUNT & HUNT, *supra* note 7, at E-2. For a description of the number of projects to be relicensed through the year 2010, see *supra* note 7.

180. Sayles Hydro Assocs. v. Maughan, 985 F.2d 451, 454 (9th Cir. 1992).

181. 42 U.S.C. §§ 4321-4370d (1994 & Supp. II 1996). For a description of the FERC regulations pertaining to NEPA compliance, see *supra* note 17.

182. See *NHA and APPA Claim that FERC's Hydro Reform Proposal Does Not Go Far Enough in Streamlining Licensing Process*, FOSTER ELECTRIC REP., Apr. 16, 1997, at 11, 12.

183. *Hearings*, *supra* note 51, at 10 (statement of Julie A. Keil, Dir. of Hydro Licensing and Water Rights, Portland Gen. Elec., and President, Nat'l Hydropower Ass'n).

184. See HUNT & HUNT, *supra* note 7, at 3-14 (detailing average licensing costs according to project size).

185. See *supra* notes 175-79 and accompanying text.

the current rate, is estimated to be \$20.3 billion between the years 1980 and 2010.¹⁸⁶

The net result of mandatory conditioning authority and associated costs in the relicensing process is that hydropower is at risk in maintaining its viability as an energy source. Indeed, power producers are finding that other sources—such as fossil fuels—generally cost less and are licensed much more quickly.¹⁸⁷ While some power producers are attempting to divest hydropower projects,¹⁸⁸ others are petitioning Congress to change the statutory scheme.¹⁸⁹ In short, mandatory conditioning authority and the resulting licensing process have placed hydropower resources at risk,¹⁹⁰ and have undermined the Commission's charge to assure that licensed projects are balanced in the public interest. Furthermore, this problem will inevitably be compounded as the electric industry is restructured to enhance competition.¹⁹¹ Unless this pattern is abated, the future of hydropower remains uncertain.

186. See HUNT & HUNT, *supra* note 7, at E-2.

187. "It now takes . . . about 2 years to site and construct a brand new gas-fired combustion turbine. . . . [I]t can take as many as 10 years and as much as \$10 million to relicense an existing hydroelectric project of similar capacity. . . . [H]ydroelectric power will not be able to stand competition against gas-fired resources . . . in a competitive environment." *Hearings, supra* note 51, at 8 (statement of Julie A. Keil, Dir. of Hydro Licensing and Water Rights, Portland Gen. Elec., and President, Nat'l Hydropower Ass'n).

188. See *California PUC Okays Sale of Two Hydro Projects by PG&E to Water District*, ELECTRIC UTIL. WK., July 1, 1996, at 10, 10; *Montana Power Seeks to Turn over Kerr Dam to 2 Tribes 20 Years Early*, UTIL. ENV'T REP., Dec. 6, 1996, at 11, 11.

189. See *NHA Working to Improve Hydro Licensing Process; House Hearing Likely*, INSIDE F.E.R.C., Apr. 27, 1998, at 1. See generally *Hearings, supra* note 51.

190. See generally HUNT & HUNT, *supra* note 7.

191. Under the current licensing scheme

federal and state agencies take full advantage of their statutory authorities to load conditions onto hydropower projects frequently without regard for project economics. The ability of hydropower licensees, particularly municipal project owners and operators, to pass to their customers ever increasing costs of environmental compliance will be limited by the market. Unless [the Commission] and Congress reexamine their policies toward this important energy resource, hydropower will not fare well in a restructured electricity industry designed to promote greater competition. Loss of hydropower generation would deprive the country and electricity consumers an important low-cost energy source and numerous other nonpower benefits associated with these projects.

NHA and APPA Claim that FERC's Hydro Reform Proposal Does Not Go Far Enough in Streamlining Licensing Process, supra note 182, at 13 (quoting American Public Power Ass'n).

IV. FINDING ALTERNATIVES WITHIN THE CURRENT STATUTORY LANDSCAPE

The burdens of mandatory conditioning authority and the relicensing process have left hydropower at an uncertain crossroads. Power producers may either utilize this source of renewable energy and incur the costs associated with its development and production, or choose to develop other sources to meet customers' power needs. Although the current statutory landscape may impede the continued use of hydropower, there are two alternatives to the standard licensing process currently available¹⁹² that may ease this burden. This part analyzes these options.

A. *Combining Consultation and Environmental Review: The Commission's Fast-Track*

Following the passage of the ECPA, the Commission promulgated relicensing procedures.¹⁹³ Because approximately forty federal statutes apply to hydropower licensing,¹⁹⁴ however,

192. Some experts have advocated that Congress should change the statutory landscape:

[W]e call on Congress to amend the statutes that interject duplicative authorities and hinder the development of collaborative approaches in relicensing projects. We believe that mandatory conditioning authorities must be carefully reconsidered to ensure that resource protection is more closely aligned with the FERC and NEPA processes. This can be accomplished only through legislative reform. Provide FERC with final decision making authority as to all the conditions that go with a hydro license, including conditions under the Federal Power Act Sections 4(e) and 18 . . . and other applicable statutes.

Hearings, supra note 51, at 10 (statement of Julie A. Keil, Dir. of Hydro Licensing and Water Rights, Portland Gen. Elec., and President, Nat'l Hydropower Ass'n).

193. See Procedures Relating to Takeover and Relicensing of Licensed Projects, 18 C.F.R. § 16.1-.26 (1998).

194. These statutes include: Department of Energy Organization Act, Pub. L. No. 95-91, 91 Stat. 565 (1977) (codified as amended in scattered sections of 5 U.S.C., 7 U.S.C., 12 U.S.C., 15 U.S.C., 16 U.S.C., 42 U.S.C.); Federal Land Policy and Management Act of 1976, Pub. L. No. 94-579, 90 Stat. 2744 (codified as amended in scattered sections of 7 U.S.C., 16 U.S.C., 30 U.S.C., 40 U.S.C., 43 U.S.C.); Toxic Substances Control Act, 15 U.S.C. §§ 2601-2692 (1994 & Supp. II 1996); Public Utility Regulatory Policies Act of 1978, Pub. L. No. 95-617, 92 Stat. 3117 (codified as amended in scattered sections of 15 U.S.C., 16 U.S.C., 30 U.S.C., 42 U.S.C., 43 U.S.C.); Energy Supply and Environmental Coordination Act of 1974, Pub. L. No. 93-319, 88 Stat. 246 (codified as amended in scattered sections of 15 U.S.C., 42 U.S.C.); Antiquities Act of 1906, 16 U.S.C. §§ 431-433 (1994); Land and Water Conservation Fund Act of 1965, 16 U.S.C. §§ 460d to 460l-34 (1994 & Supp. II 1996); National

promulgating these rules proved to be "an elaborate undertaking,"¹⁹⁵ and resulted in a burdensome process.¹⁹⁶ Accordingly, in an attempt to alleviate this burden, the Commission introduced an alternative process in 1997.¹⁹⁷ This new fast-track process "relies on cooperative efforts of the parties to design their own

Historic Preservation Act, 16 U.S.C. §§ 470-470mm (1994 & Supp. II 1996); Fish and Wildlife Coordination Act, 16 U.S.C. §§ 661-666c (1994); Pittman-Robertson Wildlife Restoration Act, 16 U.S.C. §§ 669-669j (1994); Federal Power Act, 16 U.S.C. §§ 791a-825u (1994 & Supp. II 1996); Pacific Northwest Power Planning and Conservation Act, 16 U.S.C. §§ 837-839h (1994 & Supp. II 1996); Wilderness Act of 1964, 16 U.S.C. §§ 1131-1136 (1994); Ports and Waterways Safety Act, 16 U.S.C. §§ 1221-1236 (1994); Wild and Scenic Rivers Act, 16 U.S.C. §§ 1271-1287 (1994 & Supp. II 1996); Marine Mammal Protection Act of 1972, 16 U.S.C. §§ 1361-1421h (1994 & Supp. II 1996); Marine Protection, Research, and Sanctuaries Act of 1972, 16 U.S.C. §§ 1431-1445a (1994 & Supp. II 1996); Endangered Species Act of 1973, 16 U.S.C. §§ 1531-1544 (1994); Soil and Water Resources Conservation Act of 1977, 16 U.S.C. §§ 2001-2009 (1994 & Supp. II 1996); Energy Policy Act of 1992, Pub. L. No. 102-486, 106 Stat. 2776 (codified as amended in scattered sections of 16 U.S.C., 25 U.S.C., 42 U.S.C.); Electric Consumers Protection Act of 1986, Pub. L. No. 99-495, 100 Stat. 1243 (codified in scattered sections of 16 U.S.C.); Public Utility Act of 1935, Pub. L. No. 74-333, 49 Stat. 803 (codified as amended in scattered sections of 16 U.S.C.); Coastal Zone Management Act of 1972, 16 U.S.C. §§ 1451-1464 (1994 & Supp. II 1996); Flood Control Act of 1994, Pub. L. No. 78-534, 58 Stat. 887 (codified as amended in scattered sections of 16 U.S.C., 33 U.S.C., 43 U.S.C.); Crude Oil Windfall Profits Tax Act of 1980, Pub. L. No. 96-223, 94 Stat. 229 (codified as amended in scattered sections of 17 U.S.C., 19 U.S.C., 26 U.S.C., 42 U.S.C.); Economic Recovery Tax Act of 1981, Pub. L. No. 97-34, 95 Stat. 172 (codified as amended in scattered sections of 26 U.S.C.); Energy Tax Act of 1978, Pub. L. No. 95-618, 92 Stat. 3174 (codified as amended in scattered sections of 26 U.S.C.); Occupational Safety and Health Act of 1970, 29 U.S.C. §§ 651-678 (1994); Mining Claims Rights Restoration Act of 1955, 30 U.S.C. §§ 621-625 (1994); Federal Water Pollution Control Act, 33 U.S.C. §§ 1251-1387 (1994 & Supp. II 1996); Rivers and Harbors Act of 1899, ch. 425, 30 Stat. 1121 (codified as amended in scattered sections of 33 U.S.C.); Safe Drinking Water Act, 42 U.S.C. §§ 300j to 300j-22 (1994 & Supp. II 1996); Water Resources Planning Act, 42 U.S.C. §§ 1962 to 1962d-20 (1994 & Supp. II 1996); National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321-4370d (1994 & Supp. II 1996); Environmental Programs Assistance Act of 1984, 42 U.S.C. § 4368a (1994); Federal Non-Nuclear Energy Research and Development Act of 1974, 42 U.S.C. §§ 5901-5920 (1994 & Supp. II 1996); Solid Waste Disposal Act, 42 U.S.C. §§ 6901-6992k (1994 & Supp. II 1996); Air Pollution Control Act, 42 U.S.C. §§ 7401-7642 (1994 & Supp. II 1996); Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675 (1994 & Supp. II 1996); Resource Conservation and Recovery Act of 1976, Pub. L. No. 94-580, 90 Stat. 2795 (codified as amended in scattered sections of 42 U.S.C.); Newlands Act, ch. 1093, 32 Stat. 388 (1902) (codified as amended in scattered sections of 43 U.S.C.). See HUNT & HUNT, *supra* note 7, at A-1 to A-2; Sherk, *supra* note 89, at 361 (noting that "at least forty federal statutes are applicable to the hydropower permitting and licensing process").

195. FOX, *supra* note 65, § 32.08, at 790.

196. See *supra* Part III.B.

197. See Regulations for the Licensing of Hydroelectric Projects; Final Rule, 62 Fed. Reg. 59,802 (1997). See generally 18 C.F.R. § 4.34(i) (1998).

relicensing process,"¹⁹⁸ and is intended to "simplify and expedite the licensing process."¹⁹⁹ The fast-track process is designed to achieve these goals by making two key changes to the standard licensing process. First, it combines the consultation procedures and environmental review requirements into a single process.²⁰⁰ Second, the process encourages improved communication between the applicant and other stakeholders.²⁰¹ The Commission intends these changes to result in "expedite[d] licensing proceedings . . . including the narrowing of contested issues and the submission of offers of settlement that can be used as a basis for licensing orders."²⁰² The Commission also intends these new procedures to be "flexible and tailored to the facts and circumstances" of each case.²⁰³

Although the Commission believes that mandating "by rule exactly how the alternative process [should] unfold in every case . . . would undercut the flexibility and spirit and of cooperation and open communication that lie at the heart of the alternative process,"²⁰⁴ an applicant desiring to use the process must generally follow a four-step procedure. First, the applicant must make a reasonable effort to contact all stakeholders and demonstrate that "a consensus exists that the use of alternative procedures is appropriate under the circumstances."²⁰⁵ Second, the applicant must distribute an information packet and conduct an open public meeting.²⁰⁶ Third, the applicant must provide for the "cooperative scoping of environmental issues (including necessary scientific

198. *Hearings, supra* note 51, at 54 (statement of James J. Hoecker, Chairman, FERC); *see also* 18 C.F.R. § 4.34(i)(2)(iv) (1998).

199. Regulations for the Licensing of Hydroelectric Projects; Final Rule, 62 Fed. Reg. at 59,803.

200. The goal of the alternative process is to "[c]ombine into a single process the pre-filing consultation process, the environmental review process under the National Environmental Policy Act and administrative processes associated with the Clean Water Act and other statutes." 18 C.F.R. § 4.34(i)(2)(i) (1998).

201. Stakeholders include "the potential applicant, resource agencies, Indian tribes, the public and Commission staff." *Id.* § 4.34(i)(2)(ii).

202. Regulations for the Licensing of Hydroelectric Projects; Final Rule, 62 Fed. Reg. at 59,803. "The goal of encouraging settlement is not confined to submitting a formal offer of settlement among parties on the application when it is filed, but includes any agreement that can be reached that narrows the range of contested issues, both on necessary studies and on mitigation and enhancement measures." *Id.* at 59,804.

203. *Id.* at 59,803.

204. *Id.* at 59,806.

205. 18 C.F.R. § 4.34(i)(3)(i) (1998).

206. *See id.* § 4.34(i)(4)(i).

studies), the analysis of completed studies and any further scoping."²⁰⁷ Finally, the applicant must prepare a preliminary EA or Draft EIS.²⁰⁸ Throughout this process, the applicant must file semi-annual progress reports with the Commission.²⁰⁹

Although the Commission intends the fast-track process to alleviate many of the problems associated with the standard licensing process, the fast-track's prerequisite that stakeholders arrive at a "consensus . . . that the use of alternative procedures is appropriate"²¹⁰ is a critical flaw that may significantly limit the number of projects qualified to use the process. When the Commission first proposed this alternative process, the "consensus" issue generated the most controversy and debate,²¹¹ as interested parties submitted comments centering on the appropriate definition of consensus.

Some groups argued that consensus requires unanimity,²¹² which would disqualify many large projects from qualifying for the fast-track process. Others advanced a broader definition—that consensus should mean "the preponderance of views, at least by the major participants in the process"²¹³—allowing more applicants to seek licenses under the alternative process.²¹⁴

207. *Id.* § 4.34(i)(4)(ii).

208. *See id.* § 4.34(i)(4)(iii). For a description of the FERC regulations pertaining to NEPA compliance, see *supra* note 17.

209. *See id.* § 4.34(i)(6)(ii). This progress report is to summariz[e] the progress made in the pre-filing consultation process and referenc[e] the applicant's public file, where additional information on that process can be obtained. Summaries or minutes of meetings held in the process may be used to satisfy this filing requirement. The applicant must also file with the Commission a copy of its initial information package, each scoping document, and the preliminary draft environment review document.

Id.

210. *Id.* § 4.34(i)(3)(i).

211. *See* Regulations for the Licensing of Hydroelectric Projects; Final Rule, 62 Fed. Reg. 59,802, 59,804 (1997).

212. *See id.* Those advancing unanimity believe that because the process is flexible, a full consensus is necessary to ensure that all parties agree to the adopted procedures. *See NHA and APPA Claim that FERC's Hydro Reform Proposal Does Not Go Far Enough in Streamlining Licensing Process*, *supra* note 182, at 14. Thus, these groups maintained that "the rule should define consensus [as] 'a general agreement, unanimity.'" *Id.* (quoting WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY 482 (1961)).

213. Regulations for the Licensing of Hydroelectric Projects; Final Rule, 62 Fed. Reg. at 59,805.

214. Proponents for a lower standard maintained that unanimity was unattainable, and thus the alternative procedure was of limited value because a single party could veto usage of the alternative process. *See NHA and APPA Claim*

When the Commission issued the final rule, it attempted to define consensus in a way that reflected a compromise between these two views:

The term "consensus" in ordinary usage means "general agreement" or "collective opinion: the judgment arrived at by most of those concerned." That is how the Commission employs the term here. While unanimous views obviously reflect consensus, unanimity is not always essential to a fundamentally consensual approach in a multi-party situation. The final rule does not require the applicant, in the request for use of the alternative procedures, to show that everyone concerned supports the use of these procedures. The applicant need only show that the weight of opinions expressed make it reasonable to conclude that under the circumstances it appears that use of the alternative procedures will be productive.²¹⁵

The definition of consensus has yet to be litigated in an fast-track licensing proceeding. The Commission's definition, however, undoubtedly limits the number of project applications qualifying for this process. Although the Commission clearly stated that unanimity was not required, thus eliminating complete veto power by any individual stakeholder, the definition is not broad enough to eliminate stakeholders who share interests and who "cannot gain what they want through [the alternative] process to hold the process hostage at any point."²¹⁶

This definition has also been criticized because it eliminates larger projects from using the fast-track process.²¹⁷ These larger projects are ironically the "types of projects that suffer the most under [the standard licensing process] and that could benefit most from an improved and more efficient process."²¹⁸ By narrowly defining "consensus," the Commission has streamlined the licensing process for those projects that need it the least—the simple, uncontested projects. Although this will provide an

that *FERC's Hydro Reform Proposal Does Not Go Far Enough in Streamlining Licensing Process*, *supra* note 182, at 13.

215. Regulations for the Licensing of Hydroelectric Projects; Final Rule, 62 Fed. Reg. at 59,805.

216. *NHA and APPA Claim that FERC's Hydro Reform Proposal Does Not Go Far Enough in Streamlining Licensing Process*, *supra* note 182, at 11 (quoting the National Hydropower Ass'n).

217. *See id.*

218. *Id.* at 13 (quoting the National Hydropower Ass'n).

option for smaller projects, larger projects will still be faced with the standard process. It thus appears that, on balance, the fast-track process will enjoy only marginal success, and that the majority of licensees and other stakeholders will be forced to rely on the standard process for relicensing.

B. Alternative Dispute Resolution

Alternative dispute resolution ("ADR") may provide an option to licensees and other stakeholders that is more flexible and successful than the fast-track regulatory process. The Alternative Dispute Resolution Act of 1990²¹⁹ statutorily authorizes the use of ADR in administrative processes, including the Commission's licensing process.²²⁰

Stakeholders in a hydropower project license proceeding may reach a settlement agreement so long as the proceeding is "pending before the Commission."²²¹ The Commission usually approves a settlement offer "upon a finding that the settlement appears to be fair and reasonable and in the public interest,"²²² but the Commission has authority to reject a settlement offer or portions thereof.²²³ The Commission, however, "encourages settlement agreements as a potentially effective approach to expediting the relicensing process."²²⁴

There are three advantages to pursuing ADR in relicensing. First, ADR will often save time. In 1996, for example, Wisconsin Electric Power Company reached an agreement with federal and state agencies and several stakeholders regarding the licensing of eight dams owned by Wisconsin Electric.²²⁵ This agreement, the Wilderness Shores Settlement Agreement ("Agreement"),²²⁶

219. 5 U.S.C. §§ 571-583 (1994).

220. "An agency may use a dispute resolution proceeding for the resolution of an issue in controversy that relates to an administrative program, if the parties agree to such proceeding." *Id.* § 572(a). An "administrative program" is defined as "a Federal function which involves protection of the public interest and the determination of rights, privileges, and obligations of private persons through rule making, adjudication, *licensing*, or investigation." *Id.* § 571(2) (emphasis added).

221. Submission of Settlement Offers, 18 C.F.R. § 385.602(a) (1998).

222. *Id.* § 385.602(g)(3).

223. *See id.* § 385.602(h).

224. Melissa Powell, Note, *A Case Study for Stakeholders: An Alternative to Traditional Hydroelectric Relicensing*, 18 ENERGY L.J. 405, 415 (1997).

225. *See id.* at 410.

226. *See id.*

was negotiated and settled within two years.²²⁷ In contrast, it has taken five to ten years to complete projects of this magnitude under the standard licensing process.²²⁸

Second, ADR will often save money. For example, it cost \$4 million to relicense the eight projects at issue in the Agreement.²²⁹ Just three years earlier, relicensing costs associated with four dams on the Menominee River "cost twice as much *per project*."²³⁰ In addition, ADR is more cost effective for stakeholders than the standard licensing process.²³¹

Finally, ADR may facilitate greater public participation, allowing stakeholders to engage in a proactive approach in the relicensing process.²³² For example, the Agreement addressed "key issues concerning land management, fisheries protection, water quality, recreation, hydroelectric plant operation and future dam responsibility" in a manner that encouraged creative resolutions to natural resources management issues.²³³ As another example, the Agreement contains a provision that restricts Wisconsin Electric from developing some of its property wholly outside the project basin.²³⁴ The Agreement also controls the management of non-project lands containing large forest stands.²³⁵ Both of these resource-preserving provisions are outside of the Commission's relicensing jurisdiction.²³⁶ Thus, the Agreement illustrates that ADR's freedom and flexibility saves time and money, facilitates cooperation, and achieves greater resource conservation.

227. *See id.* at 416. It has been estimated that settlements will take about five years to complete. *See id.*

228. *See Sherk, supra* note 89, at 365 n.78. These projects can take much longer than ten years. *See supra* notes 171-74 and accompanying text.

229. *See Powell, supra* note 224, at 416.

230. *Id.* (emphasis added).

231. *See id.*

232. *See id.*

233. *Pioneering Approach to Hydro Relicensing Leads to Agreement*, PR NEWSWIRE, July 31, 1996, at 1, 1.

234. *See Powell, supra* note 224, at 417.

235. *See id.*

236. *See id.*

CONCLUSION

Since the original enactment of the FWPA nearly eight decades ago, there has been a shift in public policy regarding dams and hydropower development. This shift has been reflected in subsequent congressional amendment and judicial interpretation of the statutes governing hydropower relicensing. Indeed, the FPA has evolved from a framework designed to facilitate hydropower development, to an elaborate system that requires the Commission to balance complex and often competing interests. Although the Commission is mandated to balance these considerations in the public interest and to grant new licenses on a reasonable basis, mandatory conditioning authority compromises this power, creates conflicts between governmental agencies, and increases costs to project licensees. As costs have risen, hydropower development has, in turn, become less attractive and, in some instances, economically infeasible. Moreover, the situation may exacerbate in a restructured electric market that will enhance competition among power producers. Consequently, if the regulatory landscape is not changed, the future of hydropower is in jeopardy.

Although an ultimate solution will require congressional action, there are currently two alternatives available that may temper the high costs of this burdensome process. First, the Commission has introduced a fast-track licensing process. Although this process may be limited to smaller and less contested projects, this scheme may enjoy marginal success. The second alternative, ADR, appears to be the better solution. ADR has been successful in facilitating relicensing in one large case, and its long-term value may be proven with subsequent use. Although the Commission's role diminishes when stakeholders utilize these alternatives, applicants may save time and money. At the same time, other stakeholders may more fully identify and promote their interests. Until Congress does act, these alternatives may sustain the viability of this efficient, renewable, and sustainable source of energy.