Fordham Environmental Law Review

Volume 15, *Number* 1 2004 *Article* 5

Of Credits and Quotas: Federal Tax Incentives for Renewable Resources, State Renewable Portfolio Standards, and the Evolution of Proposals for a Federally Renewable Portfolio Standard

James Moeller*

*Brunenkant & Haskell

OF CREDITS AND QUOTAS: FEDERAL TAX INCENTIVES FOR RENEWABLE RESOURCES, STATE RENEWABLE PORTFOLIO STANDARDS, AND THE EVOLUTION OF PROPOSALS FOR A FEDERAL RENEWABLE PORTFOLIO STANDARD

*James W. Moeller**

---

* J.D., Harvard Law School, 1984; M.A.L.D., Fletcher School of Law and Diplomacy, 1984; B.A., Lake Forest College, 1980. The author is a partner is the Washington, D.C. law firm of Brunenkant & Haskell.

INTRODUCTION

In April 2003, the Republican-controlled House of Representatives, on a vote of 247-175,[1] approved H.R. 6, the Energy Policy Act of 2003.[2] In July the Senate, also Republican-controlled, approved its version of H.R. 6 on a vote of 84-14.[4] Importantly, the versions differed in that the Senate version would have amended Title VI of the Public Utility Regulatory Policies Act of 1978 (PURPA) to establish a federal renewable portfolio standard (RPS) applicable to electric utilities engaged in retail electric power sales.

An RPS, in effect, imposes a quota, mandating that electric power producers must generate a certain percentage of their power from renewable resources, *e.g.*, biomass, geothermal, solar or wind resources. The Senate version of H.R. 6 would have required that 2.5 percent of the electric power sold in retail markets in 2005 be generated from renewable resources. Over a dozen states and state public

1. 149 CONG. REC. H3331 (daily ed. Apr. 11, 2003).
2. H.R. 6, 108th Cong. (1st Sess. 2003).
3. 149 CONG. REC. S10,570 (daily ed. July 31, 2003).
4. *Id.*

service commissions have adopted their own RPSs in the past decade.

Because the House version of the Energy Policy Act of 2003 differed from the Senate version of the bill, a conference committee was convened. Amid repeated allegations that the Republican-controlled committee excluded the meaningful participation of Democratic congressmen, the conference committee labored on a compromise bill for three months. Throughout the Fall of 2003, the committee grappled with seemingly irreconcilable differences over, *inter alia*, a federal RPS.

The Energy Policy Act of 2003 can be traced to the Report of the National Energy Policy Development Group (Report), which was released in May 2001. Since then, several remarkable—if not sensational—events focused national attention on energy policy. An energy crisis, which appeared in part to be the result of the deregulation of electric power markets, resulted in rolling blackouts in California in the Summer of 2001. Also in 2001, Enron Corporation, a pivotal participant in deregulated and competitive natural gas and electric power markets, collapsed and went bankrupt in a financial scandal that had wide implications for all of corporate America. Finally, in August 2003, a massive blackout struck the Northeast. As a result of these occurrences, in the Fall of 2003 the political stage was set for the enactment of comprehensive national energy legislation.

In November 2003, the conference committee reported a compromise bill, which the House approved 246-180.[5] In the Senate, however, the Energy Policy Act of 2003 was filibustered, and a motion for cloture, on a vote of 57-43, was rejected.[6] The Energy Policy Act of 2003 was dead for the First Session of the 108th Congress.[7]

Since the 1978 enactment of PURPA, Section 210 of which guarantees a market for electric power generated on a small scale from renewable resources, the federal government has relied to a large extent on tax credits to encourage the development of renewable resources for electric power generation. Even the enactment of the Energy Policy Act of 1992, which contained an entire title on renewable resources, did not make a significant shift away from this incen-

---

5. 149 CONG. REC. H11,431-32 (daily ed. Nov. 18, 2003).

6. 149 CONG. REC. S15,334-35 (daily ed. Nov. 21, 2003).

7. Dan Morgan, *Senate Energy Bill Dead for This Year*, WASH. POST, Nov. 25, 2003, at A4.

tive-based approach. The enactment of a federal RPS as proposed in the Senate version of H.R. 6 would have reflected a significant departure from incentive-based policy. The ultimate failure of that proposal, and all other such proposals since 1997, reveals the extent of political disagreement over the idea of a federal RPS.

Part I of this article will discuss the use of federal tax incentives since the enactment of PURPA to promote the development of renewable resources in electric power generation. Part II will discuss the adoption by over a dozen states and state public service commissions of an RPS, in the past decade. Part III of this article will discuss the evolution of proposals, since 1997, for a federal RPS and the developments that set the political stage for the enactment of a comprehensive energy bill in the 108th Congress. Finally, the article will propose a federal RPS that is consistent with the "cooperative federalism" of Title I of PURPA and that might resolve the political disagreement over the enactment of federal minima for electric power generated from renewable resources.

I. TAX CREDITS SINCE PURPA

A. *The Public Utility Regulatory Policies Act of 1978*

1. Section 210 of PURPA

The development of renewable resources for electric power generation began in earnest after the enactment of PURPA.[8] PURPA was one of five significant bills that were consolidated as the National Energy Act. The Act was Congress's response to the "moral equivalent of war" for U.S. energy independence that President Carter declared in the aftermath of the oil embargo of 1973 and the energy crisis that followed. In small but significant part, this war contemplated the development of renewable resources for electric power production.

8. Pub. L. No. 95-617, 92 Stat. 3117. The other four bills were the Energy Tax Act of 1978, Pub. L. No. 95-618, 92 Stat. 3174, the Powerplant and Industrial Fuel Use Act of 1978, Pub. L. No. 95-620, 92 Stat. 3289, the Natural Gas Policy Act of 1978, Pub. L. No. 95-621, 92 Stat. 3351, and the National Energy Conservation Policy Act of 1978, Pub. L. No. 95-619, 92 Stat. 3206.

To this end, Section 210 of PURPA encouraged the development of renewable resources through a guaranteed market for electric power generated from those resources. Under PURPA, traditional electric utilities providing bundled services were required to purchase electric power from "qualified" cogeneration and small power production facilities.[9] The cost to electric utilities of electric power from qualified facilities, however, could not exceed the incremental cost to the electric utilities of alternative electric power,[10] *i.e.*, the avoided cost of alternative electric power. In addition to providing a guaranteed market for the power they produced, Section 210 of PURPA exempted authorized qualified cogeneration and small power production facilities from the requirements of the Federal Power Act and PUHCA.[11]

PURPA amended the Federal Power Act to define qualified cogeneration facilities and qualified small power production facilities. Cogeneration facilities are those generating electric power along with steam or heat that is used for an industrial or commercial purpose or to heat or cool.[12] In order to qualify, these facilities must not be owned by traditional electric utilities, and must meet specific FERC requirements.[13]

---

9. 16 U.S.C. § 824a-3(a)(2) (2000). The statute also required the sale by traditional electric utilities of electric power to qualified cogeneration and small power production facilities. *Id.* § 824a-3(a)(1). The cost to qualified facilities of electric power from electric utilities was to be just and reasonable. *Id.* § 824a-3(c)(1).

10. *Id.* § 824a-3(b).

> [T]he term 'incremental cost of alternative electric energy' means, with respect to electric energy purchased from a qualifying cogenerator or qualifying small power producer, the cost to the electric utility of the electric energy which, but for the purchase from such cogenerator or small power producer, such utility would generate or purchase from another source.

Id. § 824a-3(d).

11. *Id.* § 824a-3(e). *See also* Federal Power Act, 16 U.S.C. § 791a (2000); Public Utility Holding Company Act, 15 U.S.C. § 79 (2000).

12. 16 U.S.C. § 796(18)(A) (2000).

13. *Id.* § 796(18)(B).

Small power production facilities are defined as those generating electric power from renewable resources.[14] In particular, small power production facilities are "eligible" solar, wind, waste or geothermal facilities generating up to 80 megawatts (MW) of electric power from biomass, waste, renewable resources or geothermal resources.[15] In order to qualify, these small power production facilities must not be owned by traditional electric utilities, and must meet specific FERC requirements.[16] Finally, to be eligible, these solar, wind, waste or geothermal facilities must have been constructed prior to December 31, 1999.[17]

In 1980, FERC promulgated regulations for the implementation of Section 210 of PURPA.[18] In Order No. 69, FERC adopted regulations on the cost to traditional electric utilities of electric power generated by qualified facilities.[19] In Order No. 70, FERC adopted regulations that detail the requirements under which cogeneration

---

14. *Id.* § 796(18)

15. *Id.* § 796(17)(A). The Energy Security Act of 1980 amended Section 210 of PURPA to include geothermal facilities within the definition of small power production facilities. Pub. L. No. 96-294, § 643, 94 Stat. 611, 763. Title VI of the Energy Security Act of 1980 was the Geothermal Energy Act of 1980. *See also* Geothermal Energy Research, Development, and Demonstration Act of 1974, Pub. L. 93-410, 88 Stat. 1079.

16. 16 U.S.C. § 796(17)(C) (2000).

17. *Id.* § 796(17)(E).

18. *See generally* 18 C.F.R. pt. 292 (2002) (containing regulations under sections 201 and 210 of the Public Utility Regulatory Policies Act of 1978 with regard to small power production and cogeneration).

19. Small Power Production and Cogeneration Facilities—Rates and Exemptions, Order No. 69, 45 Fed. Reg. 12,214 (Feb. 25, 1980), F.E.R.C. (CCH) Statutes & Regulations ¶ 30,128 (1980), *order on reh'g*, Order No. 69-A, 45 Fed. Reg. 33,958 (May 21, 1980), F.E.R.C. (CCH) Statutes & Regulations ¶ 30,160 (1980), *aff'd in part and vacated in part*, American Electric Power Service Corp. v. FERC, 675 F.2d 1226 (D.C. Cir. 1982), *rev'd in part*, 461 U.S. 402 (1983).

and small power production facilities become qualified for the benefits of the statute.[20]

Part 292 of the FERC regulations imposes a full, *i.e.*, 100%, avoided cost requirement for purchases of electric power from qualified facilities.[21] This means that, for example, a small power production plant that generates electric power from biomass for 4¢ per kWh could nonetheless sell that power for 8¢ per kWh if the cost to traditional electric utilities of electric power from conventional fossil generation were 8¢ per kWh.

Upon promulgation, this full avoided cost requirement was challenged by several electric utilities in the U.S. Court of Appeals for the D.C. Circuit. The D.C. Circuit vacated the rule, holding that FERC had failed to demonstrate that the rule was consistent with Section 210 of PURPA.[22] The case went to the U.S. Supreme Court[23]

---

20. Small Power Production and Cogeneration Facilities—Qualifying Status, Order No. 70, 45 Fed. Reg. 17,959 (Mar. 20, 1980), F.E.R.C. (CCH) Statutes & Regulations ¶ 30,134 (1980), *amended*, Order No. 70-A, 45 Fed. Reg. 33,603 (May 20, 1980), F.E.R.C. (CCH) Statutes & Regulations ¶ 30,159 (1980), *order on reh'g*, Order No. 70-B, 45 Fed. Reg. 52,779 (Aug. 8, 1980), F.E.R.C. (CCH) Statutes & Regulations ¶ 30,176 (1980), *order on reh'g*, Order No. 70-C, 45 Fed. Reg. 66,784 (Oct. 8, 1980), F.E.R.C. (CCH) Statutes & Regulations ¶ 30,192 (1980), *amended*, Order No. 70-D, 46 Fed. Reg. 11,251 (Feb. 6, 1981), F.E.R.C. (CCH) Statutes & Regulations ¶ 30,234 (1981), *amended*, Order No. 70-E, 46 Fed. Reg. 33,025 (June 26, 1981), F.E.R.C. (CCH) Statutes & Regulations ¶ 30,274 (1981), *order on reh'g*, Order No. 70-F, 28 F.E.R.C. (CCH) ¶ 61,265 (1984).

21. 18 C.F.R. § 292.304 (2003) (listing rates for purchases). "Avoided costs means the incremental costs to an electric utility of electric energy or capacity or both which, but for the purchase from the qualifying facility or qualifying facilities, such utility would generate itself or purchase from another source." *Id.* § 292.101(6).

22. Am. Elec. Power Serv. Corp. v. FERC, 675 F.2d 1226 (D.C. Cir. 1982). The D.C. Circuit also vacated a FERC requirement for electric utilities to interconnect with cogeneration and small power production facilities to effect sales by the facilities to the utilities. *See generally* 18 C.F.R. § 292.303(c) (2003) (obligation to interconnect).

where the utilities argued that, under Section 210, the cost to electric utilities of electric power from qualified facilities could not exceed the avoided cost of alternative electric power, but was not required to be 100% of the avoided cost.

The Supreme Court reversed the D.C. Circuit, ruling that FERC's full avoided cost requirements was not arbitrary or capricious and so deserved judicial deference. The Court observed that "[t]he Commission would have encountered considerable difficulty had it attempted to determine an appropriate rate less than full avoided cost."[24] The Court also observed that the basic purpose of Section 210 is to increase the utilization of cogeneration and small power production and thereby reduce the U.S. reliance on fossil fuels. Thus, "it was reasonable for the Commission to prescribe the maximum rate authorized by Congress and thereby provide the maximum incentive for the development of cogeneration and small power production."[25]

Part 292 establishes technical and operational requirements for cogeneration and small power production facilities to become qualified for the benefits of Section 210 of PURPA.[26] In particular, qualified small power production facilities must meet (i) maximum size, (ii) fuel use, and (iii) ownership criteria.[27] Qualified cogeneration facili-

---

23. Am. Paper Inst., Inc. v. Am. Elec. Power Serv. Corp., 461 U.S. 402 (1983).

24. *Id.* at 416.

25. *Id.* at 417. The Supreme Court also reversed the D.C. Circuit on the FERC interconnection rule. *Id.*at 422.

26. *See generally* 18 C.F.R. § 292.203 (2003) (general requirements for qualification).

27. 18 C.F.R. § 292.203(a) (2003). A size limit of 80 MW is applicable to non-eligible small power production facilities. *Id.* § 292.204(a)(1). "The primary energy source of the facility must be biomass, waste, renewable resources, geothermal resources, or any combination thereof, and 75 percent or more of the total energy input must be from these sources." *Id.* § 292.204(b)(1)(i). Qualified small power production plants may not be owned by a person "primarily engaged" in the generation and sale of electric power unless solely from small power production and cogeneration facilities. Facilities under majority ownership by electric utilities or holding companies are considered "primarily engaged." *Id.* § 292.206.

ties must meet (i) technical and operational standards and (ii) ownership criteria.[28]

Data showing the precise extent to which Section 210 of PURPA has contributed to the development of generation facilities for the use of renewable resources are hard to come by.[29] For example, the Energy Information Administration (EIA) of the U.S. Department of Energy compiled no data on cogeneration and small power production prior to 1989. But it is apparent that the statute has played a significant, though not precisely quantifiable, role in the expansion of power generation from renewable resources for the past twenty-five years.

In 1998, qualified small power production plants generated 12,658 MW of electric power from renewable resources.[30] Together, qualified cogeneration and small power production plants generated a total of 60,384 MW.[31] However, this power was generated at a much higher cost than power from fossil fuels. According to the EIA, the average wholesale cost of electric power in 1995 was 3.53¢ per kilowatt hour (kWh),[32] and the average cost of electric power

---

28. 18 C.F.R. § 292.203(b) (2003). For example, the steam or heat output of a qualified cogeneration plant, relative to the electric power output of the plant, must be a minimum of 5 percent of the total energy output of the plant. *Id.* § 292.205(a)(1). Qualified cogeneration plants may not be owned by a person "primarily engaged" in the generation and sale of electric power unless solely from small power production and cogeneration facilities. Facilities under majority ownership by electric utilities or holding companies are considered "primarily engaged." *Id.* § 292.206.

29. "It is virtually impossible to quantify the effect of any single action, because of the interdependence of many of the renewable energy programs in effect at any one time." ENERGY INFO. ADMIN., RENEWABLE ENERGY 2000: ISSUES AND TRENDS 9, DOE/EIA-0628 (2000).

30. *Id.* at 10 tbl. 3. Biomass accounted for 45,032,000 MWh; geothermal accounted for 9,882,000 MWh; hydroelectric accounted for 5,756 MWh; wind accounted for 2,568,000 MWh; solar accounted for 876,000 MWh; and photovoltaic accounted for 11,000 MWh. *Id.*

31. *Id.*

32. *Id.* at 13.

from qualified small power production facilities was 9.05¢ per kWh.[33]

2. Title I of PURPA

The recognition that PURPA has garnered since 1978 is attributable in large part to its successful promotion, under Section 210, of cogeneration and small power production and, thus, its successful promotion of electric generation from renewable resources. PURPA is largely concerned, however, with retail regulatory policies for public utilities. Title I establishes numerous retail regulatory policies for electric utilities.[35] Title III establishes similar policies for natural gas utilities.[36] These policies are intended, *inter alia*, to promote energy conservation and the efficient use of electric power generation facilities and fuels.[37]

Section 111 of PURPA establishes six fundamental policies for retail electric power rates and services,[38] which are subject to regulation by state public utility commissions. First, the rates should reflect the actual cost of electric power generation and distribution.[39] Second, the rates should not decline with increases in electric power use.[40] Third, the rates should reflect the daily variations in the actual cost of electric power generation.[41] Fourth, the rates should reflect

33. *Id.* "In analyzing these data, the reader should bear in mind that by 1995, many of the original PURPA power purchase contracts between utilities and nonutilities had expired. Therefore, the data reflect a mixture of the original avoided cost contracts and newer contracts." *Id.*

34. 15 U.S.C. §§ 3201-3211 (2000).

35. 16 U.S.C. §§ 2601-2645 (2000).

36. 15 U.S.C. §§ 3201-3211 (2000).

37. *Id.* § 2611.

38. *Id.* § 2621(d).

39. *Id.* § 2621(d)(1). Section 115 provides that the actual cost of electric power generation and distribution should be determined using methods prescribed by state public utility commissions. *Id.* § 2625(a).

40. *Id.* § 2621(d)(2).

41. *Id.* § 2621(d)(3). The daily variations in the actual cost of electric power generation should be determined in accordance with guidance provided in Section 115. *Id.* § 2625(b).

the seasonal variations in the actual cost of electric power generation.[42] Fifth, the rates should offer a special "interruptible" electric power service rate for commercial and industrial customers.[43] Finally, "[e]ach electric utility shall offer to its electric customers such load management techniques as the [state public utility commission] has determined will be practicable and cost effective . . . reliable and provide useful energy or capacity management advantages to the electric utility."[44]

In their regulation of retail electric power rates, state public utility commissions are not required to adopt and implement the six policies. PURPA merely requires the state commissions, in accordance with procedures established in Section 111,[45] to "consider each standard . . . and make a determination concerning whether or not it is appropriate to implement such standard to carry out the purposes of [PUHCA]."[46] Section 112 required each state public utility commission to complete its consideration of the six policies within three years after the enactment of PURPA.[47]

In addition to the six fundamental policies under Section 111, Section 113 of PURPA similarly establishes five standards for retail electric power rates and services.[48] First, the services generally are to exclude the installation of "master meters" for multi-unit residential buildings.[49] Second, the rates are not to be increased under automatic adjustment clauses.[50] Third, the services are to provide information to electric utility customers on electric power rates.[51]

---

42. *Id.* § 2621(d)(4).

43. *Id.* § 2621(d)(5).

44. *Id.* § 2621(d)(6). The cost-effectiveness of load management techniques should be determined in accordance with guidance provided in Section 115. *Id.* § 2625(c).

45. *Id.* § 2621(b)-(c).

46. *Id.* § 2621(a).

47. *Id.* § 2622(b).

48. *Id.* § 2623(b).

49. *Id.* § 2623(b)(1). The appropriateness of separate meters for multi-unit residential buildings is to be determined on the basis of guidance provided in Section 115. *Id.* § 2625(d).

50. *Id.* § 2623(b)(2). The exceptions to this standard are detailed in Section 115. *Id.* § 2625(e).

51. *Id.* § 2623(b)(3). Section 115 details the requirements of this standard. *Id.* § 2625(f).

Fourth, the services must terminate a customer's electric power service only in accordance with specified procedures.[52] Finally, "[n]o electric utility may recover from any person other than the shareholders . . . of such utility any direct or indirect expenditure by such utility for promotional or political advertising . . . ."[53]

Section 113 is similar to Section 111 to the extent that the adoption and implementation of the five additional standards by state public utility commissions is not required. The statute merely requires the state commissions to consider each standard and to determine, within two years after the enactment of PURPA, whether its implementation would be appropriate.[54]

Section 116 required the annual submission, through 1989, by state public utility commissions to the U.S. Department of Energy (DOE) of their determinations on the adoption and implementation of the six policies under Section 111 and the five standards under Section 113.[55] Finally, Section 117 confirms that "[n]othing in [Title I of PURPA] prohibits any State regulatory authority . . . from adopting, pursuant to State law, any standard or rule affecting electric utilities which is different from any standard established by [Title I of PURPA]."[56]

Despite the fact that the law does not require state public utility commissions to adopt either the policies of Section 111 or the standards of Section 113, those policies and standards were challenged in the courts. In FERC v. Mississippi, the State of Mississippi and the Mississippi Public Service Commission (together, Mississippi) challenged the requirements of Title I in the U.S. District Court for the Southern District of Mississippi in April 1979.[57] In an unpub-

52. *Id.* § 2623(b)(4). The procedures are specified in Section 115. *Id.* § 2625(g).

53. *Id.* § 2623(b)(5). A definition of promotional and political advertisements is provided in Section 115. *Id.* § 2625(h).

54. *Id.* § 2623(a).

55. *Id.* § 2626(a). *See generally* 10 C.F.R. pt. 463 (annual reports from states and nonregulated utilities on progress in considering the ratemaking and other regulatory standards under [PURPA]). Section 116 also required the DOE to report annually, through 1989, to the Congress on those determinations. 16 U.S.C. § 2626(a).

56. *Id.* § 2627(b).

57. Mississippi also challenged, *inter alia*, the requirements of Section 210. 16 U.S.C. § 824a-3 (2000).

lished decision, the District Court concluded that the policies and standards of Title I were unconstitutional under the Commerce Clause[58] and the Tenth Amendment.[59] The decision was appealed by FERC and the DOE to the Supreme Court,[60] which reversed the District Court[61] and held that Title I of PURPA was constitutional. With respect to the Commerce Clause,[62] the Supreme Court first observed that the Congress, in Section 2 of PURPA,[63] had determined that the legislation was within "the proper exercise of congressional authority under the Constitution to regulate interstate commerce."[64] The Court next concluded that Congress's findings amply supported the determination that the policies and standards in Title I of PURPA were important to promote the conservation and efficient use of electric power,[65] an essential element of interstate commerce.[66]

---

58. U.S. CONST. art. I, § 8, cl. 3.

59. *See* 456 U.S. 742, 752-53 (1982). To reach its Commerce Clause conclusion, the District Court relied on Carter v. Carter Coal Co., 298 U.S. 238, 56 S.Ct. 855, 80 L.Ed. 1160 (1936). *See* 456 U.S. at 752.
The Tenth Amendment specifies that "[t]he powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people." U.S. CONST. amend. X. To reach its Tenth Amendment conclusion, the District Court relied on National League of Cities v. Usery, 426 U.S. 833, 96 S.Ct. 2465, 49 L.Ed.2d 245 (1976). *See* 456 U.S. at 753.

60. 456 U.S. 742, 102 S.Ct. 2126, 72 L.Ed.2d 532 (1982).

61. *See id.* at 771.

62. "A court may invalidate legislation enacted under the Commerce Clause only if it is clear that there is no rational basis for a congressional finding that the regulated activity affects interstate commerce, or that there is no reasonable connection between the regulatory means selected and the asserted ends." Hodel v. Indiana, 452 U.S. 314, 324, 101 S.Ct. 2376, 69 L.Ed.2d 40 (1981) (citation omitted).

63. 16 U.S.C. § 2601 (2000).

64. 456 U.S. at 755.

65. *Id.* at 756-57. *See, e.g.,* S.REP.NO. 95-442 (1977).

66. The Supreme Court had previously determined that "federal regulation of intrastate power transmission may be proper because of the interstate nature of the generation and supply of electric power." 456 U.S. at 756. *See, e.g.,* FPC v. Fla. Power & Light Co., 404 U.S.

With respect to the Tenth Amendment, the Court reviewed numerous of its decisions on federal power to compel the states to engage in regulatory activities.[67] It noted that the policies of Section 111 and the standards of Section 113 were not compulsory upon the state public utility commissions, and that "the commerce power permits Congress to pre-empt the States entirely in the regulation of private utilities," should it choose to do so.[68] However, in Title I of PURPA, the Court observed, Congress decided to allow the states to decide whether to adopt and implement these policies and standards. The Court thus concluded that Title I "simply establish[es] requirements for continued state activity in an otherwise pre-emptible field," and is therefore constitutional.[69]

B. *Business Energy Tax Credit*

The business energy tax credit, codified in the Internal Revenue Code (Code),[70] has been a staple of national energy policy on renewable resources since the enactment of PURPA. Established in the Energy Tax Act of 1978 (1978 Act),[71] Section 48 of the Code authorizes a tax credit of 10% of the cost of equipment purchased and installed for the generation of electric power from solar or geothermal resources.[72] The tax credit is available for equipment that is

---

453, 92 S.Ct. 637, 30 L.Ed.2d 600 (1972); New England Power Co. v. New Hampshire, 454 U.S. 331, 102 S.Ct. 1096, 71 L.Ed.2d 188 (1982).

67. *See* 456 U.S. at 761-63.

68. *Id.* at 764.

69. *Id.* at 769. *See generally* Hodel v. Va. Surface Mining & Reclamation Ass'n, 452 U.S. 264, 101 S.Ct. 2389, 69 L.Ed.2d 1 (1981).

70. *See* 26 U.S.C. § 48 (2000) (energy credit, reforestation credit). Subtitle A of Title 26 addresses Income Taxes. Chapter 1 of Subtitle A addresses Normal Taxes and Surtaxes. Subchapter A of Chapter A addresses Determination of Tax Liability. Part IV of Subchapter A addresses Credits Against Tax. Subpart D of Part IV addresses Business related Credits. *See* 26 U.S.C. §§ 38-45D. Subpart E of Part IV addresses Rules for Computing Investment Credit. *See* 26 U.S.C. §§ 46-50.

71. Pub. L. No. 95-618, § 301, 92 Stat. 3174, 3194.

72. *See* 26 U.S.C. § 48. Section 38 of the Code authorizes a general business credit against taxes imposed on corporations. *Id.* § 38.

depreciable and that meets performance standards established in consultation with the DOE.[73] The tax credit is not available for equipment owned by public utilities.[74] The specific characteristics of equipment eligible for the credit are set forth in regulations adopted by the Internal Revenue Service (IRS).[75]

The enactment of Section 48 of the Code represented a significant departure in U.S. energy tax policy, which, until the enactment of the 1978 Act, was for the most part limited to tax incentives to encourage the development of oil and gas resources.[76] However, in the aftermath of the oil embargo of 1973 and the energy crisis that followed, and in connection with the "moral equivalent of war" for U.S.

The general business credit is the sum of credits carried forward and credits carried backwards and the current year business credit. *Id.* § 38(a). The current year business credit is the sum of credits authorized under Sections 40-45D of the Code and the investment credit authorized under Section 46 of the Code. *Id.* § 38(b). The current year business credit is limited to the minimum tax for the taxable year or $25,000 plus 25 percent of the taxes imposed in excess of $25,000. *Id.* § 38(c). The investment credit authorized under Section 46 of the Code is the sum of the rehabilitation credit authorized under Section 47, the energy credit authorized under Section 48(a), and the reforestation credit authorized under Section 48(b). *Id.* § 46. Finally, Section 48 authorizes a business energy tax credit of 10 percent of the cost of equipment purchased and installed for the generation of electric power from solar or geothermal resources. *Id.* § 48.

73. *See id.* § 48(a)(3)(C)-(D). The statute establishes special rules for equipment whose purchase and installation was subsidized or was made possible through industrial development bonds. *Id.* § 48(a)(4).

74. *See id.* § 48(a)(3).

75. *See, e.g.,* 26 C.F.R. § 1.48-9 (definition of energy property). For example, the tax credit is available for equipment with an estimated useful life of three years or more. *Id.* § 1.48-9(a)(2). The tax credit is available for equipment that is constructed, reconstructed or erected after September 30, 1978. *Id.* § 1.48-9(a)(3)(i).

76. "Historically, federal energy tax policy was focused on increasing domestic oil and gas reserves and production; there were no tax incentives for energy conservation or for alternative fuels." CONG. RESEARCH SERV., ENERGY TAX POLICY CRS-1 (Updated Aug. 20, 2003).

energy independence precipitated by the crisis, the Carter administration and Congress moved to revise tax policy to promote the development, *inter alia*, of renewable resources for electric power production.[77] This revision is reflected in the 1978 Act.[78]

Section 301 of the 1978 Act amended the Code to authorize a 10% business energy tax credit for investment in certain energy equipment over and above the pre-existing 10% standard investment tax credit.[79] Thus, a $1000 business investment in equipment for the generation of electric power from solar resources, for example,

---

77. "The third broad action taken during the 1970s to implement the new and refocused energy tax policy was the introduction of numerous tax incentives for energy conservation, the development of alternative fuels (renewable and non-conventional fuels), and the commercialization of energy efficiency and alternative fuels technologies. Most of these new tax subsidies were introduced as part of the Energy Tax Act of 1978." *Id.* at CRS-3.

78. In addition to the business energy tax credit, the Energy Tax Act of 1978 also established a residential energy tax credit, of 30% for the first $2,000 and 20% for the next $8,000, for expenditures through December 31, 1985 on solar and wind equipment. *See* Pub. L. No. 95-618, § 101(a), 92 Stat. 3174, 3175, *codified at* 26 U.S.C. § 44C (1978). The Energy Tax Act also established a tax on "gas guzzling" automobiles. Pub. L. No. 95-618, § 201(a), 92 Stat. 3174, 3180 (codified at 26 U.S.C. § 4064 (1978)). Finally, the legislation prohibited the imposition of motor fuel excise taxes on gasoline mixed with alcohol. *See* Pub. L. No. 95-618, § 221(a)(1), 92 Stat. 3174, 3185 (codified at 26 U.S.C. § 4081(c)(1978)).

79. *See* Pub. L. No. 95-618, § 301(a), 92 Stat. 3174, 3194-95 (codified at 26 U.S.C. § 46(a)(2) (1978)). The business energy tax credit was available for equipment (i) that uses alternative fuels besides oil or natural gas, (ii) that uses solar or wind resources for electric power generation, (iii) that reduces the consumption of oil or natural gas in an industrial or commercial process, (iv) that is used to recycle solid waste, (v) that is used to produce or extract oil from shale, and (vi) that is used to produce natural gas from brine. Pub. L. No. 95-618, § 301(b), 92 Stat. 3174, 3195 (codified at 26 U.S.C. § 48(l)(2)-(8) (1978)).

would receive a tax credit of $200. The business energy tax credit was available from October 1, 1978 through December 31, 1982.[80]

Section 221 of the Crude Oil Windfall Profits Tax Act of 1980 extended the business energy tax credit through 1985 for energy equipment related to solar, wind, geothermal, ocean thermal, and biomass resources,[81] and increased the credit to 15%.[82] Thus, a $1000 business investment in equipment for the generation of electric power from solar resources, for example, would now earn a tax credit of $250. The business energy credit for other energy equipment included in the Energy Tax Act was allowed to expire on December 31, 1982.[83]

---

80. *See* Pub. L. No. 95-618, § 301(a), 92 Stat. 3174, 3195-99 (codified at 26 U.S.C. § 46(a)(2)(C)(i) (1978)). The standard investment tax credit was eliminated in the Tax Reform Act of 1986. *See* Pub. L. No. 99-514, § 211(a), 100 Stat. 2090, 2166.

81. *See* Pub. L. No. 96-223, § 221(a), 94 Stat. 229, 260 (codified at 26 U.S.C. § 46(a)(2) (1980)). The Windfall Profits Tax expanded the business energy tax credit to include business investments in energy equipment related to ocean thermal resources and to biomass resources. *Id.* The Windfall Profits Tax Act also increased the residential energy tax credit to 40% of the first $10,000 for expenditures on solar and wind equipment. Pub. L. No. 96-223, § 202(a), 94 Stat. 229, 258 (codified at 26 U.S.C. § 44C (1980)). Of course, the legislation also amended Subtitle D of Title 26 (miscellaneous excise taxes) to impose a windfall profit tax on domestic crude oil. Pub. L. No. 96-223, § 101(a), 94 Stat. 229, 230 (codified at 26 U.S.C. § 4986-4998 (1980)). *See generally* Logan, *Crude Oil "Windfall Profit" Tax Act of 1980*, 2 ENERGY L.J. 259 (1980).

82. *See* Pub. L. No. 96-223, § 221(a), 94 Stat. 229, 260 (codified at 26 U.S.C. § 46(a)(2) (1980)). The credit for energy equipment related to solar, wind, or geothermal resources, and to ocean thermal resources, was increased to 15%. *Id.* The credit for energy equipment related to biomass resources was not increased from 10%. *Id.*

83. For example, the business energy tax credit was allowed to expire for equipment that is used to recycle solid waste, that is used to produce or extract oil from shale, and that is used to produce natural gas from brine. *See generally* Pub. L. No. 95-618, § 301(b), 92 Stat. 3174, 3195 (codified at 26 U.S.C. §§ 48(l)(2)-(8) (1978)).

Six years after the Crude Oil Windfall Profits Tax Act,[84] the Tax Reform Act of 1986 repealed the standard investment tax credit but extended the business energy tax credit for energy equipment related to solar, geothermal, ocean thermal, and biomass resources through December 31, 1988.[85] For solar equipment, the tax credit was 15% for 1986, 12% for 1987, and 10% for 1988.[86] For geothermal equipment, the tax credit was 15% for 1986, 10% for 1987, and 10%

---

84. In 1984, Section 46(a)(2) of the Code, relative to the business energy investment credit, became Section 46(b)(2) of the Code. Deficit Reduction Act of 1984, Pub. L. No. 98-369, § 474(o), 98 Stat. 494, 834 (simplification of income tax credits, technical and conforming amendments). *See also* Economic Recovery Tax Act of 1981, Pub. L. No. 97-34, §§ 211-214, 95 Stat 172, 227-41 (investment tax credit provisions); Tax Equity and Fiscal Responsibility Act of 1982, Pub. L. No. 97-248, § 205, 96 Stat. 324, 427 (amendments to investment credit).

85. *See* Pub. L. No. 99-514, § 421(a), 100 Stat. 2090, 2229 (codified at 26 U.S.C. § 46(b)(2) (1986)). The business energy tax credit for energy equipment related to wind resources was allowed to expire on December 31, 1985. *See generally* Pub. L. No. 95-618, § 301(b), 92 Stat. 3174, 3195 (codified at 26 U.S.C. § 48(l)(4) (1978)). The Tax Reform Act was a significant milestone in the Reagan Administration. The legislation included eighteen titles and, in general, reduced corporate tax rates, imposed uniform tax rates for capital gains, unearned income and earned income, reduced tax rates for individuals in the top bracket, broadened the tax base, simplified the Code, eliminated the deduction for Individual Retirement Account contributions for individuals in the top brackets, and eliminated the standard investment tax credit. *See generally* NIXON, HARGRAVE, DEVANS & DOYLE, THE TAX REFORM ACT OF 1986 (1986); Yorio, *Equity, Efficiency, and the Tax Reform Act of 1986*, 55 FORDHAM L. REV. 395 (1987); Zolt, *Corporate Taxation After the Tax Reform Act of 1986*, 66 N.C.L. REV. 839 (1988). The congressional debate on the 900-page bill underscored the exceedingly complex nature of comprehensive Code reform. "Very frankly, Madame Speaker, I respectfully submit there is not a person alive who knows what is in this bill." 99 CONG. REC. H8375 (daily ed. Sept. 25, 1986) (quoting Rep. Stan Parris).

86. *See* Pub. L. No. 99-514, § 421(a), 100 Stat. 2090, 2229 (codified at 26 U.S.C. § 46(b)(2) (1986)).

for 1988.[87] After 1988, the 10% business energy tax credit for solar, geothermal and ocean thermal equipment was extended on a year-to-year basis until 1992.[88] Finally, Section 1916 of the Energy Policy Act of 1992 made the 10% business energy tax credit for solar equipment and for geothermal equipment a permanent feature of the Code.[89]

---

87. *See id.* For ocean thermal equipment, the tax credit was 15%. For biomass equipment, the tax credit was 15% for 1986 and 10% for 1987. *Id.* The business energy tax credit for energy equipment related to biomass resources was not extended through December 31, 1988. *Id.*

88. Technical and Miscellaneous Revenue Act of 1988, Pub. L. No. 100-647, § 4006, 102 Stat. 3342, 3652 (codified at 26 U.S.C. § 46(b)(2) (1988)) (extension through December 31, 1989); Omnibus Budget Reconciliation Act of 1989, Pub. L. No. 101-239, § 7106, 103 Stat. 2106, 2306 (codified at 26 U.S.C. § 46(b)(2) (1989)) (extension through September 30, 1990). Title VII of the Omnibus Budget Reconciliation Act of 1989 was the Revenue Reconciliation Act of 1989. *See also* Omnibus Budget Reconciliation Act of 1990, Pub. L. No. 101-508, § 11406, 104 Stat. 1388, 1474 (codified at 26 U.S.C. § 48(b)(2) (1990)) (extension through December 31, 1991). Title XI of the Omnibus Budget Reconciliation Act of 1990 was the Revenue Reconciliation Act of 1990. *Id.* The business energy tax credit for energy equipment related to ocean thermal resources was not extended through December 31, 1991. *Id.* The Omnibus Budget Reconciliation Act of 1990 also restructured Subpart E (Rules for Computing Investment Credit) of Part IV (Credits Against Tax) of Subchapter A (Determination of Tax Liability) of Chapter 1 (Normal Taxes and Surtaxes) of Subtitle A (Income Taxes) the Code. Pub. L. No. 101-508, § 11813(a), 104 Stat. 1388, 1536 (codified at 26 U.S.C. §§ 46-50 (1990)). Section 11813 of the statute transferred the amount of, and the termination date for, the business energy tax credit from Section 46 of the Code to Section 48. *Id. See also* Tax Extension Act of 1991, Pub. L. No. 102-227, § 106, 105 Stat. 1686, 1687 (codified at 26 U.S.C. §48(a)(2) (1991)) (extension through June 30, 1992); *Congress Approves Bill to Extend Tax Credits for Solar, Geothermal Plants*, ELECTRIC UTIL. WK., Dec. 9, 1991, at 4.

89. *See* Pub. L. No. 102-486, § 1916(a), 106 Stat. 2776, 3024 (codified at 26 U.S.C. § 48(a)(2) (2000)).

Just prior to the enactment of the Tax Reform Act of 1986, and the extension of the business energy tax credit through December 31, 1988, the General Accounting Office (GAO) reported that the tax credit would result in foregone federal income tax revenues of $2.05 billion for the period 1978 to 1986.[90] The GAO also reported that the tax credit had resulted in extensive abuse.[91] Nevertheless, a 1986 industry study showed that the business energy tax credit, in conjunction with Section 210 of PURPA, had resulted in the development of over 7,000 MW of generation.[92]

In a similar vein, just prior to the enactment of the Energy Policy Act of 1992, the Joint Committee on Taxation credited the business energy tax credit for solar and geothermal equipment with the development of over 2700 MW of geothermal generation and 275 MW of solar generation.[93] The apparent success of the business energy tax credit in the promotion of renewable resources resulted in proposals in 1992 for the permanent extension of the credit.[94] The Energy Policy Act of 1992 incorporated such a proposal.

---

90. GEN. ACCOUNTING OFFICE, TAX POLICY: BUSINESS ENERGY INVESTMENT CREDIT, GAO/GGD-86-21 10 (1985).

91. "[Internal Revenue Service] examinations of business energy credits claimed by taxpayers indicated that the credit was causing administrative problems for IRS in the areas of inappropriate tax benefit claims and the use of the credit in alleged abusive tax shelter schemes." *Id.* at 20. *See also IRS Considers 88% of Energy Tax Credit Claims 'Abusive' Says New GAO Report*, ELECTRIC UTIL. WK., Jan. 20, 1986, at 4.

92. *See, e.g., Despite, Slumping Energy Markets, Small Power Growth Continues, Study Finds*, ELECTRIC UTIL. WK., May 12, 1986, at 17.

93. *See* JOINT COMM. ON TAXATION, DESCRIPTION AND ANALYSIS OF TAX PROVISIONS EXPIRING IN 1992 86 (Jan. 27, 1992); *Renewable Tax Incentives*, ELECTRIC UTIL. WK., Feb. 10, 1992, at 2.

94. *See* S. 2100, 102nd Cong. (1991) (extension through December 31, 2001). *See also* S. 1220, 102nd Cong. (1991); *Johnston, Wallop Propose Tax Code Revisions to Complement Energy Bill*, ELECTRIC UTIL. WK., Aug. 19, 1991, at 10. *See also* S. 141, 102nd Cong. (1991) (extension through December 31, 1996); *Tax Credits*, ELECTRIC UTIL. WK., Jan. 21, 1991, at 2.

C. *Renewable Electricity Production Credit*

In addition to the extension on a permanent basis of the business energy tax credit for solar equipment and for geothermal equipment, the Energy Policy Act of 1992 established a new feature of the Code relative to renewable resources. The legislation established a production tax credit for electric power generated from certain renewable resources.[95]

Section 45 of the Code authorizes an electric power production credit of 1.5¢ per kWh for electric power generated from "qualified" resources at "qualified" facilities for a ten-year period from commencement of operations.[96] The statute defines qualified resources in terms of wind, closed-loop biomass and poultry waste.[97] The credit is reduced, however, for sales of electric power in excess of 8¢ per kWh.[98] Both the amount of the credit and the amount of the re-

---

95. *See* Pub. L. No. 102-486, § 1914(a), 106 Stat. 2776, 3020 (codified at 26 U.S.C. §45(c) (1992)).

96. 26 U.S.C. § 45(a). Section 38 of the Code authorizes a general business credit against taxes imposed on corporations. *Id.* § 38. The general business credit is the sum of credits carried forward and credits carried backwards and the current year business credit. *Id.* § 38(a). The current year business credit is the sum of credits authorized under Sections 40-46 of the Code. *Id.* § 38(b). The credits authorized under Sections 40-46 of the Code include the electric power production credit under Section 45(a). *Id.* § 38(b)(8).

97. *Id.* § 45(c)(1). The statute defines qualified facilities in terms of wind facilities placed into service between December 31, 1993 and January 1, 2002; closed-loop biomass facilities placed into service between December 31, 1993 and January 1, 2002; and poultry waste facilities placed into service between December 31, 1999 and January 1, 2002. *Id.* § 45(c)(3). "The term 'closed-loop biomass' means any organic material from a plant which is planted exclusively for purposes of being used at a qualified facility to produce electricity." *Id.* § 45(c)(2).

98. "The amount of the credit determined under subsection (a) shall be reduced by an amount which bears the same ratio to the amount of the credit . . . as (A) the amount by which the reference price for the calendar year in which the sale occurs exceeds 8 cents, bears to (B) 3 cents." *Id.* § 45(b)(1). The statute authorizes the DOE to determine the reference price each year on the basis of annual av-

duction are adjusted for inflation.[99] The credit for 2002, therefore, was 1.8¢ per kWh.[100] Finally, the credit is not available for electric power sold to electric utilities under certain contracts.[101]

Section 1914 of the Energy Policy Act authorized a production credit for electric power generated from wind resources and closed-loop biomass resources at facilities placed into service between December 31, 1993 and July 1, 1999.[102] Section 507 of the Ticket to Work and Work Incentives Improvement Act of 1999 extended this credit to facilities placed into service before January 1, 2002.[103] In addition, the statute extended the production credit to poultry waste

---

erage contract prices for electric power generated from qualified resources at qualified facilities. *Id.* § 45(d)(2)(C). If the reference price was 10 cents per kWh, therefore, then the credit would be reduced by two-thirds. *Id.* In addition, there would be no reduction if annual average contract prices were under 8 cents per kWh. *Id.*

99. *Id.* § 45(b)(2).

100. I.R.S. Notice 02-39, *Renewable Electricity Production Credit, Publication of Inflation Adjustment factor and Reference prices for Calendar Year 2002*, 2002-25 I.R.B. 1204 (June 24, 2002). In addition, the annual average contract price for wind resources was 5.54 cents per kWh and the annual average contract price for closed-loop biomass and poultry waste resources was 0.00 cents per kWh. *Id.* Thus, Section 45 required no reductions in production credits for electric power from renewable resources. *Id.*

101. *See* 26 U.S.C. § 45(d)(7) (1999). The credit is unavailable for electric power that is generated at facilities placed into service after June 30, 1999 but that is sold under contracts concluded before January 1, 1987. *See id.*

102. *See* Pub. L. No. 102-486, § 1914(a), 106 Stat. 2776, 3020 (codified at 26 U.S.C. § 45(c) (1992)). The credit was available for wind facilities placed into service after December 31, 1993 and for closed-loop biomass facilities placed into service after December 31, 1992. "The wind power industry [was] expected to benefit tremendously from the production incentive, sources agreed." *National Energy Policy Act Promotes Competition, Efficiency, Environment*, ELECTRIC UTIL. WK., Oct. 12, 1992, at 1.

103. *See* Pub. L. No. 106-170, § 507(a), 113 Stat. 1860, 1922 (codified at 26 U.S.C. § 45(c) (1999)). Title V of the Ticket to Work and Work Incentives Improvement Act of 1999 is the Tax Relief Extension Act of 1999.

facilities.[104] Finally, the statute amended Section 45 of the Code to prohibit the application of the production credit to electric power sold to electric utilities under certain contracts.[105]

The production credit expired on December 31, 2001. In March 2002, however, the Job Creation and Worker Assistance Act of 2002 extended Section 45 of the Code to facilities placed into service before January 1, 2004.[106] The production credit was allowed to expire on December 31, 2003.

D. *Renewable Energy Production Incentive*

In addition to the renewable electricity production credit, which was available to individuals and corporations paying federal income tax, the Energy Policy Act of 1992 introduced a second and related innovation in IRS treatment of renewable resources. The Renewable Energy Production Incentive (REPI) was made available to entities that do not pay federal income tax, such as state and local government entities and non-profit electric rural cooperatives, when they own and operate generation assets.[107] Because these entities are not subject to federal income taxation, the REPI program does not appear in the Code.

Section 1212 of the Energy Policy Act of 1992 authorized an incentive payment of 1.5¢ per kWh for electric power generated from "qualified" facilities for the first ten years of service.[108] The amount of the payment was adjusted for inflation, and subject to annual con-

---

104. *See* Pub. L. No. 106-170, § 507(b), 113 Stat. 1860, 1922 (codified at 26 U.S.C. § 45(c) (1999)).

105. *See* Pub. L. No. 106-170, § 507(c), 113 Stat. 1860, 1922 (codified at 26 U.S.C. § 45(d) (1999)).

106. *See* Pub. L. No. 107-147, § 603(a), 116 Stat. 21, 59 (codified at 26 U.S.C. § 45(c) (1999)).

107. *See generally* Rural Electrification Act of 1936, 7 U.S.C. 901-918a (1936). Section 2 of the Rural Electrification Act authorizes the U.S. Department of Agriculture to make loans to non-profit electric rural cooperatives for the construction of generation, transmission and distribution facilities. *Id.* § 902.

108. 42 U.S.C. § 13317. The ten-year period began with the fiscal year in which a solar, wind, biomass, or geothermal plant was placed into service. *Id.* § 13317(d).

gressional appropriations.[109] The statute defined qualified facilities to include both tax-paying, private facilities and those owned by state and local government entities or electric cooperatives that generate electric power from solar, wind, biomass, or geothermal resources.[110] The production incentive was available to facilities placed into service between October 1, 1993 and September 30, 2003.[111]

The REPI program was administered by the DOE Office of Energy Efficiency and Renewable Energy, which promulgated regulations in July 1995 for the implementation of Section 1212.[112] The regulations detail the process by which qualified facilities can apply to receive incentive payments.[113] The regulations also detail the requirements for qualified facilities,[114] which may be converted from unqualified facilities.[115] Finally, the regulations outline the procedures to be followed if "funds determined to be available . . . are not sufficient to make full incentive payments for all approved applications . . . ."[116]

In the promulgation of the REPI regulations, the DOE observed that "[t]he program authorized by section 1212 [of the Energy Policy Act] provides State instrumentalities and nonprofit electric cooperatives incentives for the production of electricity using certain renewable resources in a manner that complements the incentives offered to taxable entities under sections 1914 and 1916 of the Energy Policy Act."[117] The REPI regulations were supplemented with additional informal guidance from the DOE in July 1997.[118]

---

109. *See id.* § 13317(e)(2).

110. *See id.* § 13317(b).

111. *See id.* § 13317(c). The fiscal year that began October 1, 1993 was the first full fiscal year after October 24, 1992, the date on which the Energy Policy Act was enacted. *Id.*

112. *See generally* 10 C.F.R. pt. 451 (renewable energy production incentives).

113. *See id.* § 451.8 (application content requirements).

114. *See id.* § 451.4.

115. *See id.* § 451.4(f).

116. *Id.* § 451.9(e).

117. 60 Fed. Reg. 36,959, 36,960 (July 19, 1995). The DOE proposed the REIP regulations in May 1994. 59 Fed. Reg. 24,982 (May 13, 1994).

118. 62 Fed. Reg. 36,025 (July 3, 1997).

The amount of electric power generated by qualified facilities under the REPI program soared from 42,255,235 kWh in fiscal year 1994 to 700,997,067 kWh in fiscal year 2001.[119] Since 1996, however, the DOE has received insufficient funds from Congress to make incentive payments to all qualified facilities. Congress appropriated $3 million for incentive payments for fiscal year 1994, and $4 million for 1998, but that number dropped to just $1.5 million for 1999. For 2001, just under $3.8 million was appropriated. An additional $34 million would have been required to make all the incentive payments for the 700,000,000 more kWh of electric power produced by qualified facilities.

E. *Research Tax Credit*

Although not specifically intended to promote the development of electric power generated from renewable resources, the research tax credit written into the Code in 1981 has contributed significantly to increased research and development in the field.

Section 41 of the Code authorizes a tax credit of 20% of qualified research expenses above a base amount, in addition to a separate 20% credit for basic research expenses.[120] The definition of qualified research expenses draws a distinction between in-house research expenses and contract research expenses.[121] The base amount is the

---

119. *See* OFFICE OF ENERGY EFFICIENCY & RENEWABLE ENERGY, U.S. DEP'T OF ENERGY, RENEWABLE ENERGY PRODUCTION INCENTIVE (REPI), *available at* http://www.eere.energy.gov/power/repi.html (last updated Oct. 22, 2003).

120. *See* 26 U.S.C. § 41(a) (2000). Section 38 of the Code authorizes a general business credit against taxes imposed on corporations. *See id.* § 38. The general business credit is the sum of credits carried forward and credits carried backwards and the current year business credit. *See id.* § 38(a). The current year business credit is the sum of credits authorized under Sections 40-46 of the Code. *See id.* § 38(b). The credits authorized under Sections 40-46 of the Code include the research credit under Section 41(a). *See id.* § 38(b)(1).

121. *See id.* § 41(b)(1). The definition of in-house research expenses includes wages paid to employees engaged in qualified research and expenses for supplies. *See id.* § 41(b)(2). The definition of contract research expenses is limited to 65% of expenses for non-employees engaged in qualified research. *See id.* § 41(b)(3).

product of a fixed-base percentage and the claimant's average annual gross receipts for the past four years.[122] Put simply, the base amount is determined by the fixed-base percentage of aggregate qualified research expenses for 1984 through 1988, relative to aggregate gross receipts for 1984 through 1988.[123]

Thus, a producer claiming the research tax credit, with $1 million in annual gross receipts for 1984 through 1988 and annual qualified research expenses of $200,000, would have a fixed-base percentage of 20% and a base amount of $200,000 in 1989. If $300,000 in qualified research expenses were incurred in 1989, then the claimant would be eligible for a research tax credit of $20,000 as well as 20% of basic research payments.

The tax credit is available for qualified technological research undertaken to develop a new, or improve an existing, business component.[124] The tax credit is not available for research (i) undertaken after commercial production, (ii) for the adaptation of existing business components to particular requirements or needs, (iii) to duplicate an existing business component, or (v) related to surveys, software, foreign research, social sciences or funded research.[125]

Section 41 provides a 20% credit for qualified research expenses as well as a 20% credit for basic research payments, made by the claimant to qualified organizations.[126] Educational institutions and organizations, scientific research organizations, tax-exempt scientific organizations and grant organizations all qualify under the scheme.[127] A basic research payment is defined as a payment for basic research conducted pursuant to a written agreement.[128] The credit is available for basic research "for the advancement of scien-

---

122. *See id.* § 41(c)(1). "In no event shall the base amount be less than 50 percent of the qualified research expenses for the credit year." *Id.* § 41(c)(2).

123. *See id.* § 41(c)(3)(A). "In no event shall the fixed-base percentage exceed 16 percent." *Id.* § 41(c)(3)(C). The fixed-base percentage for start-up companies is different. *See id.* § 41(c)(3)(B). An alternative incremental credit is also available. *See id.* § 41(c)(4).

124. *See id.* § 41(d)(1).

125. *See id.* § 41(d)(4).

126. *See id.* § 41(e).

127. *See id.* § 41(e)(6). The credit is not available to service organizations. *See id.* § 41(e)(7)(E)(iii).

128. *See id.* § 41(e)(2).

tific knowledge not having a specific commercial objective."[129] Finally, the 20% tax credit only applies to basic research payments in excess of a base period amount.[130] The research tax credit expires on June 30, 2004.[131]

The Economic Recovery Tax Act of 1981 (ERTA) established the research tax credit.[132] ERTA's 25% tax credit,[133] codified in Section 44F of the Code, was available for expenses incurred prior to January 1, 1986.[134] The original statute applied only to qualified research expenses, and not to basic research payments.[135] The Deficit Reduction Act of 1984 transferred the research tax credit to Section 30 of the Code.[136]

Thereafter, the Tax Reform Act of 1986 transferred the provision to Section 41 of the Code,[137] expanded the coverage of the research tax credit to include basic research payments as well as qualified

---

129. *Id.* § 41(e)(7)(A).

130. *See id.* § 41(e)(1)(A). A basic research payment that is not in excess of the base period amount constitutes contract research expenses. *See id.* § 41(e)(1)(B). The base period amount is equal to the sum of a minimum basic research amount and a maintenance-of-effort amount. *See id.* § 41(e)(3). The minimum basic research amount is the best of (i) 1% of in-house research expenses and contract research expenses for a three-year period or (ii) basic research payments not in excess of the base period amount. *See id.* § 41(e)(4). The maintenance-of-effort amount is a function of contributions to qualified organizations not used to calculate a credit under Section 41. *See id.* § 41(e)(5).

131. *See id.* § 41(h)(1).

132. Economic Recovery Tax Act of 1981, Pub. L. No. 97-34, § 221(a), 95 Stat. 172, 241 (1981) (codified at 26 U.S.C. § 44F (2000)).

133. *See id.* (codified at 26 U.S.C. § 44F(a)).

134. *See id.* § 221(d)(1), 95 Stat. 172, 247.

135. *See id.* § 221(a), 95 Stat. 172, 241 (codified at 26 U.S.C. § 44F(a)).

136. Tax Reform Act of 1984, Pub. L. No. 98-369, § 471(c), 98 Stat. 494, 826 (1984).

137. Tax Reform Act of 1986, Pub. L. No. 99-514, § 231(d), 100 Stat. 2085, 2178 (1986).

research expenses,[138] and extended the credit for three years to December 31, 1988,[139] but reduced the credit from 25% to 20%.[140] Section 502 of the Ticket to Work and Work Incentives Improvement Act of 1999 extended the research tax credit to June 30, 2004.[141]

In 1999 Congress extended the research tax credit for another five years. This extension was accompanied by an admonition that the program be administered "in a manner that is consistent with the intent Congress has expressed in enacting and extending the research credit."[142] In response to this admonition, the IRS in January 2001 adopted revised regulations to implement Section 41 of the Code.[143] The revised regulations reflect amendments to the complex statute made by the Tax Reform Act of 1986, the Revenue Reconciliation

---

138. *See id.* § 231(c), 100 Stat. 2085, 2175 (codified at 26 U.S.C. § 41(a)).

139. *See id.* § 231(a), 100 Stat. 2085, 2173 (codified at 26 U.S.C. § 41(h)(1)). In 1988, Section 41 was extended to December 31, 1989. Pub. L. No. 101-239, § 4007(a), 103 Stat. 2106, 2322. In 1989, the statute was extended to December 31, 1990. Pub. L. No. 100-647, § 7110(a), 102 Stat. 3342, 3652. In 1990, Section 41 was extended to December 31, 1991. Pub. L. No. 101-508, § 11402(a), 104 Stat. 1388, 1388-473. In 1991, the statute was extended to June 30, 1992. Pub. L. No. 102-227, § 102(a), 105 Stat. 1686, 1686. In 1993, Section 41 was extended to June 30, 1995. Pub. L. No. 103-66, § 13111(a), 107 Stat. 312, 420. In 1996, the statute was extended to May 31, 1997. Pub. L. No. 104-188, § 1204(a), 110 Stat. 1755, 1773. In 1997, Section 41 was extended to June 30, 1998. Pub. L. No. 105-34, § 601(a), 111 Stat. 788, 861. Finally, in 1998, the statute was extended to June 30, 1999. Pub. L. No. 105-277, § 1001(a), 112 Stat. 2681, 2681-888.

140. Tax Reform Act of 1986, Pub. L. No. 99-514, § 231(c), 100 Stat. 2085, 2175 (1986) (codified at 26 U.S.C. § 41(a)).

141. Ticket to Work and Work Incentives Improvement Act of 1999, Pub. L. No. 106-170, § 502(a), 113 Stat. 1860, 1919 (codified at 26 U.S.C. § 41(h)(1)). Title V of the Ticket to Work and Work Incentives Improvement Act of 1999 is the Tax Relief Extension Act of 1999. *Id.*

142. H.R. REP. NO. 106-478, at 132 (1999).

143. 66 Fed. Reg. 280 (Jan. 3, 2001). *See generally* 26 C.F.R. §§ 1.41-0 to 1.41.8.

Act of 1989, the Small Business Job Protection Act of 1996, the Taxpayer Relief Act of 1997, the Tax and Trade Relief Extension Act of 1998, and, of course, the Tax Relief Extension Act of 1999.

II. STATE RENEWABLE PORTFOLIO STANDARDS

A. *Introduction*

Consistent with the observation that the fifty states have often act as laboratories for testing what will later become federal policies,[144] several states have pioneered the development of the RPS. Today, over a dozen states require that state power facilities generate a minimum of their electrical power from renewable resources.[145] The RPS is but one of several instruments used to promote the generation of electric power from renewable resources, and numerous states and state public service commissions have adopted other sorts of rules, regulations, incentives and policies to require or encourage the use of these resources.[146] The adoption of an RPS by over a dozen states, however, has inspired and contributed in no small measure to the evolution of proposals for a federal RPS.

B. *Arizona*

In April 1999, the Arizona Corporation Commission (ACC) began to research the development of a state RPS in connection with ACC

---

144. *See* New State Ice Co. v. Liebmann, 285 U.S. 262, 311 (1932) (Brandeis, J., dissenting). "It is one of the happy incidents of the federal system that a single courageous State may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country." *Id.* FERC v. Mississippi, 456 U.S. 742, 788 (1982) (O'Connor, J., concurring in part and dissenting in part). "Courts and commentators frequently have recognized that the 50 States serve as laboratories for the development of new social, economic, and political ideas. This state innovation is no judicial myth." *Id.*

145. Those states are California, Connecticut, Hawaii, Maine, Massachusetts, Nevada, New Jersey, New Mexico, Pennsylvania, Texas, and Wisconsin.

146. *See generally* Database of State Incentives for Renewable Energy, *at* http://www.dsireusa.org (last visited Mar. 1, 2004).

regulations on competition in retail electric power markets.[147] In August 2000, the ACC proposed for public comment a draft RPS,[148] which was adopted in February 2001. Arizona's RPS was thus ultimately promulgated by the ACC, and not enacted by the legislature.[149] The RPS became effective on March 30, 2001.

The Arizona RPS required that 0.2% of the electric power sold in the state in 2001 be derived from solar resources or renewable resources.[151] The cost of the RPS to companies engaged in retail sales could be recovered through a residential electric bill surcharge of up to 35¢ per month and a commercial electric bill surcharge of $13 per month.[152]

The RPS increased to 0.4% in 2002, 0.6% in 2003, and 0.8% in 2004, and will increase to 1.00% in 2005, 1.05% in 2006, and 1.10% in 2007 through 2012.[153] The RPS will not increase after 2004, however, unless the cost of electric power from renewable resources has declined to an ACC-approved breakpoint.[154] Between 2001 and 2004, 50% of the electric power derived from renewable resources

147. *See, e.g.*, In the Matter of the Generic Investigation of the Development of a Renewable Portfolio Standard As a Part of the Retail Electric Competition Rules, Decision No. 62506 (Ariz. Corp. Comm'n May 4, 2000).

148. *See* In the Matter of Notice of Proposed Rulemaking for the Environmental Portfolio Standard, Decision No. 62762 (Ariz. Corp. Comm'n Aug. 2, 2000).

149. *See* In the Matter of Notice of Proposed Rulemaking for the Environmental Portfolio Standard, Decision No. 63364 (Ariz.Corp.Comm'n Feb. 8, 2001); *see also* In the Matter of Notice of proposed Rulemaking for the Environmental Portfolio Standard, Decision No. 63486 (Ariz. Corp. Comm'n Mar. 29, 2000) (amendment); *see generally* ARIZ.ADMIN.CODE § R14-2-1618 (2003).

150. *See* In the Matter of Notice of Proposed Rulemaking for the Environmental Portfolio Standard, Decision No. 63364 (Ariz.Corp.Comm'n Feb. 8, 2001); *see also* In the Matter of Notice of proposed Rulemaking for the Environmental Portfolio Standard, Decision No. 63486 (Ariz. Corp. Comm'n Mar. 29, 2000) (amendment); *see generally* ARIZ.ADMIN.CODE § R14-2-1618 (2003).

151. *See* ARIZ. ADMIN. CODE § R14-2-1618A (2003).

152. *See id.* § R14-2-1618(A)(2).

153. *See id.* § R14-2-1618(B)(1).

154. *See id.* § R14-2-1618(B)(2).

must be from solar resources. Thereafter, 60% must be from solar resources.[155]

In June 2003, a cost evaluation committee formed by the ACC issued a final report on the costs, benefits, and impacts of the Arizona RPS.[156]

C. *California*

In September 2002, the California legislature enacted Senate Bill No. 1078,[157] which amended the Public Utilities Code to establish the California Renewables [*sic*] Portfolio Standard Program (California RPS Program).[158] The California RPS Program, which complements the California Renewable Energy Program,[159] is administered by the California Energy Resources Conservation and Development Commission (California Energy Commission) in collabora-

---

155. *See id.* § R14-2-1618(B)(3).

156. COST EVALUATION WORKING GROUP, FINAL REPORT: COSTS, BENEFITS, AND IMPACTS OF THE ARIZONA ENVIRONMENTAL PORTFOLIO STANDARD, SUBMITTED TO ARIZONA CORP. COMM'N (June 30, 2003).

157. 2002 Cal. Stat. ch. 516, 2002 Cal. Adv. Legis. Serv. 516 (Deering). The RPS was enacted with Senate Bill No. 1038, which authorizes the continuation of public programs to encourage the use of renewable resources and the continuation of research on renewable resources through a five-year extension of the Public Interest Energy Research Program and the Renewable Energy Program. 2002 Cal. Stat. ch. 515, 2002 Cal. Adv. Legis. Serv. 515 (Deering).

158. *See generally* CAL. PUB. UTIL. CODE §§ 399.11-399.15 (2004) (California Renewables Portfolio Standard Program).

159. *See generally id.* § 383.5. The California legislature established the Renewable Energy Program "to increase the amount of renewable electricity generated per year, so that it equals at least 17 percent of the total electricity generated for consumption in California." *Id.* § 383.5(a). The Renewable Energy Program funds the development and operation of facilities within California for electric power generation from renewable resources. *See id.* § 383.5(c)-(d); *See also id.* § 445 (Collection and Disposition of Fees for Renewable Energy Technologies). Section 445 of the Public Utilities Code established the Renewable Resource Trust Fund, which funds the Renewable Energy Program.

tion with the California Public Utilities Commission (California PUC).

The California RPS Program, which became effective on January 1, 2003, requires electric utilities engaged in retail sales to increase by 1% per year purchases or generation of electric power from "eligible" renewable resources.[160] By 2017, those electric utilities must purchase or generate at least 20% of their electric power from eligible renewable resources,[161] which include biomass, wind, solar, geothermal and hydropower.[162]

Under the California RPS Program, the California Energy Commission certifies eligible renewable resources that meet the criteria established in Senate Bill No. 1078,[163] which also directs the commission to design and implement a verification system for compliance with the annual procurement targets.[164] In March 2003, the commission commenced a proceeding to implement the state RPS,[165] and issued guidelines for collaboration with the California PUC.[166]

The California RPS Program directs the California PUC to require the development and submission, by electric utilities engaged in retail sales, of renewable energy procurement plans,[167] which should be "consistent with the goal of procuring the least-cost and best-fit eligible renewable energy resources."[168] Senate Bill No. 1078 requires contracts for purchases of electric power from eligible renewable resources to be a minimum of ten years in duration.[169]

In June 2003, the California PUC issued an order to implement the state RPS.[170] The order permits electric utilities engaged in retail

160. *Id.* § 399.15(b)(1).

161. *See id.*

162. *See id.* § 399.12(a).

163. *See id.* § 399.13(a).

164. *See id.* § 399.13(b).

165. *See* Implementation of Renewable Portfolio Standard Legislation, Docket No. 03-RPS-1078 (Calif. Renewables Comm. Mar. 13, 2003) (order and guidelines).

166. *See id.*

167. *See* CAL. PUB. UTIL. CODE § 399.14(a) (2004).

168. *Id.* § 399.14(a)(3).

169. *See id.* § 399.14(a)(4).

170. *See* Order Initiating Implementation of the Senate Bill 1078: Renewable Portfolio Standard Program, Decision No. 03-06-071 (Calif. Public Util. Comm'n June 19, 2003) [hereinafter Decision

sales to "bank" excess purchases of electric power from eligible renewable resources.[171] The order also imposes a fee of 5¢ per kWh for purchases that fall short of annual procurement targets.[172]

D. *Connecticut*

The state legislature of Connecticut enacted an RPS in 1998. The requirement was included in legislation to deregulate the generation of electric power and to provide for retail competition in Connecticut electric markets.[173] The following year, the legislature authorized the Connecticut Department of Public Utility Control (Connecticut DPUC) to permit an additional two years for compliance with the RPS if the DPUC determined that the requirement could not be met.[174] Finally, in June 2003, the legislature amended the 1998 legislation to expand the reach of the RPS and to reduce the minimum for electric power generated from renewable resources.[175]

No. 03-06-071]; *see generally Under State Senate Mandate, State Commission Orders California IOUs to Expand Renewable Portfolio By One Percent Per Year*, FOSTER ELECTRIC REP., July 2, 2003, at 1; *Calif. Utilities Must Meet 2017 Deadline for 20% Renewables in Energy Portfolios*, ELECTRIC UTIL. WK., June 30, 2003, at 19.

171. Decision No. 03-06-071, *supra* note 170, ¶ 20, at 73.

172. *See id.* ¶ 23, at 74.

173. 1998 Conn. Acts 28 (Reg. Sess.). *See, e.g., Potential 'Logistical' Problems Spur Conn. Lawmakers to Postpone Choice*, ELECTRIC UTIL. WK., Feb. 16, 1998, at 9; *New Conn. Restructuring Proposal Targets Full Access By July 2000*, ELECTRIC UTIL. WK., Feb. 9, 1998, at 11. *But see Non-Profit Cooperative Closes Shop in Conn.'s Anemic Competitive Market*, ELECTRIC UTIL. WK., Aug, 26, 2002, at 20. "In a setback for the fledgling competitive energy market in Connecticut, the non-profit Connecticut Electric Cooperative has decided to cease providing competitive electricity supplies and go out of business." *Id.*

174. 1999 Conn. Acts 225 (Reg. Sess.).

175. 2003 Conn. Acts 135 (Reg. Sess.). *See, e.g., Connecticut Senate Votes to Extend Standard-Offer Rates*, FOSTER ELECTRIC REP., May 28, 2003, at 20. "In another green provision, the bill lowers green portfolio standards imposed on competitive suppliers. They will now have to cover 10 percent of the demand with renewable energy by 2010 instead of 13 percent under the 1999 bill, and

The RPS requires power-generation companies licensed by the Connecticut DPUC to generate 1.0% of their power output in 2004 from "Class I" renewable resources, and to generate an additional 3.0% of their output from "Class I" or "Class II" renewable resources.[176] These percentages are to increase through 2010, when 7% of total power output must be generated from Class I renewable resources and an additional 3% must be generated from Class I or Class II renewable resources.[177]

Class I renewable resources include solar power, wind power, methane gas from landfills, cultivated and harvested biomass, ocean thermal power, and wave or tidal power used in facilities that commence operations after July 1, 1998.[178] Class II renewable resources include energy source garbage, non-cultivated and non-harvested biomass, and hydropower.[179] The RPS also authorizes the Connecticut DPUC to promulgate regulations to implement the requirement,[180] which it did in June of 1999.[181]

E. *Hawaii*

The State of Hawaii began in earnest to assess the prospective advantages and disadvantages associated with a state RPS in 2000.[182]

---

will have more types of renewable resources from which to choose." *Id.*

176. CONN. GEN. STAT. § 16-245a(a) (2003).

177. *See id.*

178. *See id.* § 16-1(a)(26).

179. *See id.* § 16-1(a)(27).

180. *See id.* § 16-245a(c).

181. *See generally* CONN. AGENCIES REGS. § 16-245-5 (2004) (renewable portfolio requirements).

182. *See, e.g.*, GDS ASSOC., RENEWABLE PORTFOLIO STANDARDS: REPORT PREPARED FOR THE DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM, STATE OF HAWAII (2000) [hereinafter RENEWABLE PORTFOLIO STANDARDS]; *see also* ENERGY, RES. & TECH. DIV., DEP'T OF BUS, ECON. DEV. & TOURISM, STATE OF HAW., HAWAII ENERGY STRATEGY 2000 8-16 (2000). "Renewable resources require support until they become fully cost-competitive. Methods for ensuring the future promotion, development, and use of Hawaii's renewable resources could include the use of options such as a renewable portfolio standard (RPS), public benefit funding for

An initial assessment concluded that the state, with an abundance of renewable resources but almost no oil, coal or natural gas, was a model candidate for an RPS. "It seems apparent that a[n RPS] could be implemented in Hawaii and could offer even greater benefits to Hawaii than is expected in the other states which have adopted similar requirements."[183] A subsequent detailed analysis of RPS options highlighted Hawaii's dependence on imported fossil fuels for electric power generation and observed that the cost of power in the state—an average of 14¢ per kWh—was the highest in the nation.[184]

This compelling case prompted the state legislature to enact in June 2001, with an effective date of December 31, 2003, an RPS for electric utilities engaged in retail sales.[185] Under the state statute, 7% of the electric power sold by those utilities in 2003 must be generated from renewable resources, rising to 8% in 2005 and to 9% 2010.[186] Under the statute, renewable resources include wind power, solar power, geothermal power, hydropower, landfill gas, ocean thermal, ocean waves,[187] biomass and biofuels.[188]

These goals were based on an analysis that indicated that up to 10.5% of the electric power generated in Hawaii could be derived from renewable resources.[189] In 2003, however, the state legislature examined a proposal to increase to 20% the requirement for electric power generated from renewable resources.[190]

---

installation of renewable systems, or allowing Hawaii's utilities to market 'green' power." *Id.*

183. RENEWABLE PORTFOLIO STANDARDS, *supra* note 182, at 11.

184. GDS ASSOC., ANALYSIS OF RENEWABLE PORTFOLIO STANDARD OPTIONS FOR THE STATE OF HAWAII 1 (2001) [hereinafter RPS OPTIONS].

185. *See* 2001 Haw. Sess. Laws 272.

186. *See* HAW. REV. STAT. § 269-92 (2003).

187. *See, e.g.*, DEP'T OF BUS., ECON. DEV, & TOURISM, STATE OF HAW., FEASIBILITY OF DEVELOPING WAVE POWER AS A RENEWABLE ENERGY RESOURCE FOR HAWAII (2002); SEASUN POWER SYS., WAVE ENERGY RESOURCE AND ECONOMIC ASSESSMENT FOR THE STATE OF HAWAII (1992).

188. *See* HAW. REV. STAT. § 269-91 (2003).

189. *See* RPS OPTIONS, *supra* note 184, at 2.

190. *Hawaiian Electric Creates Renewable Unit, As Legislature Reviews 20% Mix*, ELECTRIC UTIL. WK., Jan. 27, 2003, at 13.

F. *Illinois*

In June 2001, the Illinois legislature enacted the Illinois Resource Development and Energy Security Act (Illinois Energy Act),[191] the principal purpose of which was to encourage the development of new electric generation from Illinois coal.[192] The Illinois Energy Act amended the state Department of Commerce and Community Affairs (Illinois DCCA) Act to authorize the Illinois DCCA to provide financial assistance to eligible businesses for new electric generation.[193]

The Illinois Energy Act did not impose a minimum for electric power generated from renewable resources on electric utilities engaged in retail sales. The legislation nonetheless states that "[r]enewable forms of energy should be promoted as an important element of the energy and environmental policies of the State and it is a goal of the State that at least 5% of the State's energy production and use be derived from renewable forms of energy by 2010 and at least 15% from renewable forms of energy by 2020."[194] There are no provisions, however, for monitoring compliance or for enforcement.

No RPS was included in Illinois legislation to promote competition in retail electric power markets. In December 1997, the state legislature enacted the Electric Service Customer Choice and Rate Relief Act of 1997,[195] which, after May 1, 2002, permitted Illinois residents a choice in electric utilities for generation services. The legislation, however, also enacted the Renewable Energy, Energy Efficiency,

---

191. 2001 Ill. Laws 12.

192. "The purpose of this Act is to enhance the State's energy security by ensuring that: (i) the State's vast and underutilized coal resources are tapped as a fuel source for new electric plants; (ii) the electric transmission system within the State is upgraded to more efficiently distribute additional amounts of electricity; (iii) well-paying jobs are created as new electric plants are built in regions of the State with relatively high unemployment; and (iv) pilot projects are undertaken to explore the capacity of new, often renewable sources of energy to contribute to the State's energy security." *Id.* § 15.

193. *See id.* § 905.

194. *Id.* § 5(f).

195. 1997 Ill. Laws 561.

and Coal Resources Development Act of 1997 (Illinois Development Act),[196] which authorized the Illinois DCCA to provide grants, loans, and other incentives to promote investments in the development and use of renewable resources.[197] The Illinois Development Act expires in December 2007.[198]

G. *Iowa*

The Iowa state RPS has a somewhat storied past.[199] The state legislature enacted an RPS of sorts in 1983.[200] The requirement is included in legislation "to encourage the development of alternate energy production facilities and small hydro facilities in order to conserve our finite and expensive energy resources and to provide for their most efficient use."[201] The legislation requires for-profit electric utilities in the state to purchase electric power generated from renewable resources.[202] The legislation also authorizes the Iowa Utilities Board (Iowa Board) to establish rates for electric power generated from renewable resources. The purpose of these rates is to encourage the development of alternate power production,[203] which consists of electric power from solar, wind, wood, garbage or biomass resources.[204] Finally, the legislation limits the aggregate purchases of alternate electric power by electric utilities in Iowa to 105 MW.[205]

---

196. *Id.* § 6-1.
197. *See id.* § 6-3.
198. *See id.* § 6-7.
199. *See, e.g.,* IOWA UTILS. BD., DEP'T OF COMMERCE, FACTS CONCERNING THE CONSUMPTION AND PRODUCTION OF ELECTRIC POWER IN IOWA 43-45 (2000).
200. *See* 1983 Iowa Acts 182.
201. IOWA CODE § 476.41 (2003).
202. *See id.* § 476.43(1). The requirement is inapplicable to electric power generated from renewable resources by for-profit electric utilities in the state. *Id.* § 476.44(1)..
203. *See id.* § 476.43(2).
204. *See id.* § 476.42(1).
205. *See id.* § 476.44(2). "The [Iowa Board] shall allocate the one hundred five megawatts based upon each utility's percentage of the total Iowa retail peak demand . . . of all utilities subject to this section." *Id.* Thus, the Board allocates the 105-MW quota among three

In 1983, the Iowa Board adopted a rate of 6.5¢ per kWh for electric power generated from renewable resources, and the state Supreme Court overturned this rate in 1987.[206] The Supreme Court rejected the implementation of a single state-wide rate rather than specific rates for individual electric utilities.[207] Partially in response to this decision, the Iowa state legislature amended the statute in 1990.[208] The amendment limited to 15 MW the purchases by individual electric utilities of alternate electric power.[209] Enacted in 1992,[210] a subsequent amendment to the statute replaced the individual 15-MW quotas with the current collective 105-MW quota.[211] Finally, a 1996 amendment established a revolving loan program,[212] which provides interest-free loans for the construction of alternate power production facilities.[213]

In 1995, Midwest Power Systems, Inc. (MPSI) filed a petition with FERC that sought a declaration that the Iowa state RPS was preempted by Section 210 of PURPA.[214] The petition was granted in part and denied in part. With respect to the Iowa state RPS *per se*, the FERC concluded that "the Iowa statute and the orders promulgated by the Iowa Board are consistent with federal law to the extent

---

for-profit electric utilities in Iowa—IES Utilities, Interstate Power, and MidAmerican Energy Company. IOWA UTILS. BD., *supra* note 199, at 2. Alliant Energy owns both IES Utilities and Interstate Power. *Id.*

206. *See* Iowa Power & Light Co. v. Iowa State Commerce Comm'n, 410 N.W.2d 236 (1987).

207. "In setting the statewide, fixed, minimum rate, the commission specifically rejected periodic contested case determinations as the means of setting purchase rates for individual utilities. The key issue in this litigation is whether it was appropriate for the commission to reach such a wholesale determination, thereby denying the utilities the right to have the rates set individually, on a contested case basis." 410 N.W.2d at 240.

208. *See* 1990 Iowa Acts 1252.

209. *See id.* § 38.

210. *See* 1992 Iowa Acts 1166.

211. *See id.* § 1.

212. *See* 1996 Iowa Acts 1196.

213. IOWA CODE § 476.46 (2003).

214. *See generally* Midwest Power Sys., Inc., 78 F.E.R.C. ¶ 61,067 (1997).

that they provide that Midwest Power must purchase a certain amount of generation from the alternate facilities."[215] With respect to orders of the Iowa Board to establish rates for alternate electric power, the FERC concluded that those orders were preempted by Section 210 of PURPA to the extent the orders required the purchase of electric power from qualified facilities in excess of avoided cost.[216]

H. *Maine*

Enacted in May 1997 in legislation deregulating the generation of electric power in the state and providing for retail competition in Maine,[217] the Maine state RPS imposes a licensing requirement for electric power retailers,[218] and conditions the issuance of such a license on the use of "eligible resources" for 30% of the electric power sold by the licensee.[219] The definition of eligible resources

---

215. *Id.* *See also* Conn. Light & Power Co., 70 F.E.R.C. ¶ 61,012, *order on reh'g*, 71 F.E.R.C. (CCH) ¶ 61,035 (1995), *appeal dism'd*, Niagara Mohawk Power Corp. v. FERC, 117 F.3d 1485 (D.C. Cir. 1997). "As a general matter, states have broad powers under state law to direct the planning and resource decisions of utilities under their jurisdiction. States may, for example, order utilities to build renewable generators themselves, or deny certification of other types of facilities if state law so permits. They also, assuming state law permits, may order utilities to purchase renewable generation." 71 F.E.R.C. ¶ 61,035.

216. "We find that the orders of the Iowa Board are preempted by [PURPA] to the extent they obligate electric utilities to purchase power generated by qualifying facilities, within the meaning of PURPA and the Commission's implementing regulations, at rates in excess of the purchasing utilities' avoided cost." 78 F.E.R.C. ¶ 61,067.

217. Electric Industry Restructuring Act, 1997 Me. Laws 316. *See, e.g.*, *Maine, Vermont Issue Final Competitive Programs That Closely Resemble Drafts*, ELECTRIC UTIL. WK., Jan. 6, 1997, at 6. "Regulators in Maine and Vermont issued final electric industry restructuring plans Dec. 31, setting the stage for legislative action in both states during 1997." *Id.*

218. ME. REV. STAT. ANN. tit. 35-A, § 3203 (West 2003).

219. *Id.* § 3210.

includes both renewable and "efficient" resources,[220] *i.e.*, cogeneration facilities that are qualified under Section 210 of PURPA, that were constructed prior to January 1, 1997, and whose useful power and thermal output is 60% or more of their total energy input.[221] Thus, the 30% quota is not a quota for renewable resources but for renewable resources and cogeneration resources.

In September 1999, the Maine Public Utilities Commission (Maine PUC) promulgated regulations to implement the state RPS.[222] The regulations reiterate that the RPS is applicable not only to renewable resources but to efficient resources as well.[223] The regulations mandate annual compliance reporting and provide for sanctions for noncompliance.[224] These sanctions include the revocation of a license to engage in retail electric power sales.[225]

In the past few years, Maine's RPS has come under criticism. In the Fall of 2002, three public interest organizations in Maine issued a broad report on state energy issues which said that the state RPS is "broadly recognized as a failure."[226] Perhaps in response to this re-

---

220. *Id.* § 3210(2)(B). Renewable resources are small power production facilities qualified under Section 210 of PURPA or facilities that generate under 100 MW from fuel cells, tidal installations, solar installations, wind installations, geothermal installations, hydroelectric installations, and electric power from biomass and municipal solid waste. *See id.* § 3210(2)(C).

221. *See id.* § 3210(2)(A).

222. CODE ME. R. 65-407 ch. 311 (Eligible Resource Portfolio Requirement). "The purpose of the Chapter is to implement the State's policy to encourage the generation of electricity from renewable, efficient and indigenous resources through the adoption of requirements and standards for a 30% portfolio requirement." *Id.* § 1 (purpose).

223. *See id.* § 4 (eligible resources). "[E]nergy used to satisfy the portfolio requirement must be physically delivered to the [Independent System Operator of the New England bulk power system] control area or the Maritimes control area." *Id.* § 4(B).

224. *See id.* § 6(b).

225. *See id.* § 6(b)(1).

226. ME. CTR. FOR ECON. POLICY, NATURAL RES. COUNCIL OF MAINE, MAINEWATCH INST., ENERGY FOR MAINE'S FUTURE: A CALL FOR LEADERSHIP 18 (2002). The Maine state RPS "provides no impetus for new renewable energy production and wrongly allows

port, the Maine state legislature directed the Maine PUC to examine options to promote the expanded use of renewable resources in September 2003.[227] The legislature singled out for consideration an RPS "similar in design to the current requirement."[228] In November 2003, the Maine PUC released a draft report on the promotion of renewable resources.[229] The draft report observed that "[t]he experience to date, however, reveals that the current portfolio requirement is not satisfying the . . . stated policy of encouraging the generation of electricity from renewable and efficient resources."[230]

The Maine legislature, in June 2003, also directed the Energy Resources Council, a committee with members from state departments and agencies with energy-related missions,[231] to undertake a comprehensive review of state energy policies.[232] The council was directed to "focus its review on policies related to energy efficiency and renewable energy."[233] In December 2003, the Energy Resources

---

coal- and oil- fired cogeneration and tire-derived fuel facilities to qualify. It sets a minimum amount from renewable and qualifying sources at 30%, yet this percentage is well below historic levels for hydropower and biomass generation in Maine." *Id.*

227. 2003 Me. Acts 45. "[T]he Public Utilities Commission shall examine mechanisms designed to ensure a secure, adequate and reliable supply of electricity for state residents and to maintain and increase the State's use of renewable and indigenous resources." *Id.* § 1.

228. *Id.*

229. ME. PUB. UTILS. COMM'N, DRAFT REPORT AND RECOMMENDATIONS ON THE PROMOTION OF RENEWABLE RESOURCES (2003).

230. *Id.* at 4-5. "The primary reason is that the 'supply' represented by the list of eligible resources is significantly greater than the 'demand' created by the 30% requirement, and retail suppliers are able to satisfy the portfolio requirement through facilities that can supply power at or near the prevailing market price. The consequence is that Maine's current portfolio requirement produces no (or very little) financial premium over market for those facilities that require it." *Id.* at 5.

231. *See generally* ME. REV. STAT. ANN. tit. 5, § 3327 (West 2003).

232. *See* 2003 Me. Laws 487.

233. *Id.* § 4.

Council released a report[234] concluding that the Maine RPS "has in fact not prevented a decline in renewables' market share."[235] The council report observes that several proposals to amend the Maine RPS are under consideration in the state legislature.

I. *Massachusetts*

1. State RPS Statute

Like Maine, Massachusetts enacted a bill in 1997 to unbundle electric power generation from power transmission and distribution, and to otherwise provide for competition in retail electric power markets.[236] The Electric Reform Bill directs the Massachusetts Division of Energy Resources (Massachusetts DOER)[237] to establish an RPS for companies that provide retail electric power service.[238]

The Massachusetts RPS statute directs the Massachusetts DOER to determine the actual amount of electric power derived from renewable resources through December 31, 1999, and to thereafter require that 1.0% of retail electric power sales through 2003 be derived from "new" renewable resources, *i.e.*, from renewable resource installa-

---

234. ENERGY ADVISORS, LLC, MAINE ENERGY POLICY: OVERVIEW AND OPPORTUNITIES FOR IMPROVEMENT (2003).

235. *Id.* at 29. "PURPA contracts have expired or been bought out, and biomass generators find it difficult to operate profitably in the competitive market. Some small hydro facilities are not profitable due to a variety of factors that may include high fixed costs, low energy prices and obligations to install fish passage." *Id.*

236. 1997 Mass. Acts 164. *Mass. Legislature Comes In Under Wire; Retail Competition Starts Next March*, ELECTRIC UTIL. WK., Nov. 24, 1997, at 1. "Massachusetts utilities will be required to open their service territories to retail choice for all customers beginning March 1, 1998 under final restructuring legislation passed last Wednesday." *Id. See also Hardly Any Massachusetts Customers Have Switched Suppliers, State Finds*, ELECTRIC UTIL. WK., Oct, 18, 1999, at 10.

237. The Massachusetts DOER is separate from the Massachusetts Department of Telecommunications and Energy, which succeeded the state Department of Public Utilities.

238. *See* MASS. GEN. LAWS ch. 25A, § 11F (2004).

tions not in service before January 1, 2000.[239] Section 11F establishes a minimum of 1.5% through 2009 and "an additional 1 per cent of sales every year thereafter until a date determined by the [DOER]."[240]

After an extended rulemaking proceeding,[241] the Massachusetts DOER released final RPS regulations in April 2002.[242] Under these regulations, "new" renewable resources must meet certain criteria,[243] and must be qualified by the Massachusetts DOER.[244] The DOER regulations also refined the RPS to require that 1.0% of retail electric power sales through 2003 be derived from new renewable resources, 1.5% through 2004, 2.0% through 2005, 2.5% through 2006, 3.0% through 2007, 3.5% through 2008, and 4.0% through 2009.[245] Retail electric power sales from "new" renewable resources installations in excess of these goals may be banked.[246]

---

239. *Id.* § 11F(a)(i).
240. *Id.* § 11F(a)(iii).
241. *See, e.g.,* DIV. OF ENERGY RES., STATE OF MASS., BACKGROUND DOCUMENT ON THE PROPOSED REGULATION FOR THE RENEWABLE ENERGY PORTFOLIO STANDARD (Oct. 2001); LACAPRA ASSOC., MASSACHUSETTS RENEWABLE PORTFOLIO STANDARD COST ANALYSIS REPORT (Dec. 2001); DIV. OF ENERGY RES., STATE OF MASS., SUMMARY OF PUBLIC COMMENTS AND AGENCY RESPONSES (Feb. 2002). *See also Mass. Seeks Renewables Mandate for Default, Standard Offer Service*, ELECTRIC UTIL. WK., Oct. 8, 2001, at 16.
242. *See generally* MASS. REGS. CODE tit. 225, §§ 14.00-14.12 (2004).
243. *Id.* § 14.05. A new renewable resources installation must use solar power, wind power, ocean thermal power, ocean wave power, ocean tide power, landfill methane gas, or biomass for the generation of electric power. *Id.* § 14.05(1)(a). The commercial date of operation of a new renewable resource installation must be after December 31, 1997. *Id.* § 14.05(1)(b).
244. *Id.* § 14.06. A new renewable resources installation must submit to the Massachusetts DOER a Statement of Qualification. *Id.* § 14.06(1). The Massachusetts DOER will review a Statement of Qualification within ninety days. *Id.* § 14.06(2).
245. *Id.* § 14.07(1). "After 2009, the Minimum Standard shall increase by one percent per Compliance Year until the Division suspends the annual increase." *Id.* § 14.07(2).
246. *Id.* § 14.08(3).

Finally, the Massachusetts DOER regulations require the submission of annual compliance reports,[247] new renewable resources installations are subject to inspection,[248] and a failure to meet the goals could result in the revocation of a power provider's license to engage in retail electric power sales in the state.[249]

The Massachusetts DOER has facilitated and promoted the development of new renewable resources in the Commonwealth.[250] Another state agency, the Massachusetts Technology Park Corporation, established by the 1997 Electric Reform Bill,[251] provides funds for the development of new renewable resources installations from the Massachusetts Renewable Energy Trust Fund.[252] The development of installations, however, has in some instances proved to be quite controversial.

2. Nantucket Sound Wind Farm

In particular, the proposed development of an offshore wind power facility in Nantucket Sound, between Cape Cod and Nantucket, encountered rough seas in 2003. In November 2001, Cape Wind Associates, LLC (Cape Wind) requested a permit from the U.S. Army Corps of Engineers (USACE), under Section 10 of the Rivers and Harbors Appropriation Act of 1899,[253] to construct a wind power

247. *See id.* § 14.09.
248. *See id.* § 14.11.
249. *See id.* § 14.12.
250. *See, e.g.*, MASS. DIV. OF ENERGY RES., RENEWABLE ENERGY AND DISTRIBUTED GENERATION GUIDEBOOK: A DEVELOPER'S GUIDE TO REGULATIONS, POLICIES AND PROGRAMS THAT AFFECT RENEWABLE ENERGY AND DISTRIBUTED GENERATION FACILITIES IN MASSACHUSETTS (2001).
251. *See* 1997 Mass. Acts 164.
252. *See generally* MASS. GEN. LAWS ch. 40J, § 4E (2004).
253. 33 U.S.C. § 403. "The creation of any obstruction not affirmatively authorized by Congress, to the navigable capacity of any of the waters of the United States is prohibited; and it shall not be lawful to build or commence the building of any . . . structures in any . . . water of the United States . . . except on plans recommended by the Chief of Engineers and authorized by the Secretary of the Army." *Id.*

plant, or wind farm, in Nantucket Sound.[254] The site for the proposed wind farm, which would be the first offshore wind power plant in the U.S., is on the Outer Continental Shelf (OCS), and thus within the jurisdiction of the USACE under the Outer Continental Shelf Lands Act (OCSLA).[255] The Cape Wind project would involve an investment of $500 million in the development of renewable resources.[256] Even so, several environmental organizations have voiced opposition to the project.[257]

---

254. *See, e.g.*, 67 Fed. Reg. 4,414 (Jan. 30, 2002) (notice of intent to prepare draft environmental impact statement). The wind farm would consist of 170 wind turbines over an area of 26 square miles in the Horseshoe Shoals area of Nantucket Sound. *Id.* Each 263-foot turbine would be fitted with three blades that would reach a height of 423 feet. *Id.* The wind farm would generate up to 420 MW of electric power, which would be transmitted to shore through a submarine cable system. *See id.* In January 2003, the Cape Wind project was revised to consist of 130 turbines. *See* David Arnold, *Size of Wind Farm Plan Reduced*, BOSTON GLOBE, Jan. 22, 2003, at B3.

255. *See* 43 U.S.C. § 1333(a)(1). "The Constitution and laws and civil and political jurisdiction of the United States are extended to the subsoil and seabed of the outer Continental Shelf and to all artificial islands." *Id.* *See also* 33 C.F.R. § 320.2(b) (2004). "The authority of the Secretary of the Army to prevent obstructions to navigation in navigable waters of the United States was extended to artificial islands, installations, and other devices located on the seabed, to the seaward limit of the outer continental shelf, by section 4(f) of the [OCSLA]." *Id.*

256. *See also* Beth Daley, *Second Firm Proposes Nantucket Wind Farm*, BOSTON GLOBE, July 25, 2002, at B1. "An enormous second wind energy farm is being proposed off the coast of Nantucket, and if built, could provide power for as many as 250,000 homes. The proposal, one of the most ambitious in the world, calls for 250 wind turbines 400 feet high to be built north or east of Nantucket. Winergy LLC of Shirley, N.Y., has applied for four sites, which range from 7 to 11 miles from the island. Company officials say they intend to only build on one site." *Id.*; Beth Daley, *New England Eyed As Natural Locale for Wind Power*, BOSTON GLOBE, July 30, 2002, at A1. "Developers and government agencies are proposing 11 wind power projects across New England, from the mountains of Maine to the Boston Harbor islands, including some that would be

In November 2001, Cape Wind also requested a Section 10 permit from the USCAE to construct an offshore meteorological data station in Nantucket Sound to collect data for the development of the wind farm project. The USACE issued the permit in August 2002, and the issuance was upheld by the U.S. District Court for the Dis-

---

among the biggest wind farms in the world." *Id.*; David Arnold, *Plans in the Air: Many Are Wary of New York Energy Firm's Proposal to Place 400-Foot Towers off the Mass. Coastline*, BOSTON GLOBE, Nov. 15, 2002, at B1. "But unlike the Cape Wind project, which would be built in federal waters, the Winergy windmills would be erected a mile or two offshore in state waters, where the permitting process is bound to be much more rigorous - in part because the sites are in state-controlled ocean sanctuaries." *Id.*; David Arnold, *Wind Proposals Sweeping Region; Some Worries Remain on Aesthetic Impact*, BOSTON GLOBE, Mar. 4, 2003, at B1 "Well-financed energy companies have now proposed more than half a dozen major wind farms in New England, potentially bringing 270 towering wind turbines to the mountaintops and coastal waters of the region that could generate enough electricity for as many as 250,000 homes." *Id.*

257. *See, e.g.*, Patricia Nealon, *Environmentalists Clash Over Wind Farm Plan*, BOSTON GLOBE, July 11, 2002, at B1. "For decades it's been a favorite of environmentalists in search of cleaner, cheaper, renewable forms of energy: harnessing the power of the wind to generate electricity. Offshore wind farms, fueled by an endless supply of blustery raw material, surely could supplant fossil fuels, particularly along the gusty coastline of New England. Or so the argument goes. But, with the country's first large offshore wind farm inching closer to reality off the coasts of Hyannis and Nantucket, it was a group of environmentalists that came out against the plan yesterday." *Id. See also* Beth Daley, *Senator Questions Wind Farm Proposal*, BOSTON GLOBE, Aug. 14, 2002, at B5. "A powerful US senator from Virginia is raising objections to plans for an enormous offshore wind-power project in Nantucket Sound, delaying scientific testing of the idea until he can be fully briefed on the entire project." *Id.*; David Arnold, *Massachusetts Attorney General Urges More Review on Cape Windmills*, BOSTON GLOBE, Oct. 18, 2002, at B4; Stephanie Ebbert, *On Wind, Some Blow Hot and Cold*, BOSTON GLOBE, June 17, 2003, at A1.

trict of Massachusetts in September 2003.[258] The Alliance to Protect Nantucket Sound, Inc. (Nantucket Alliance), a public interest organization, has challenged this application in court.[260]

The legal issues associated with the first U.S. offshore wind farm are, of course, *sui generis*, and their resolution has involved Congress as well as the federal courts. In February 2003, Rep. Barbara Cubin (R-WY) introduced a bill to amend the OCSLA to authorize the U.S. Department of the Interior to grant easements and rights of way on the OCS for the development and production of energy resources.[262] This bill became H.R. 793. In March 2003, Rep. Wil-

---

258. *See, e.g.*, U.S. ARMY CORPS OF ENG'RS, COMMENT SUMMARY: OFFSHORE WIND ENERGY GENERATION PROJECT, HORSESHOE SHOALS, NANTUCKET SOUND—SECTION 10 PERMIT APPLICATION, DRAFT ENVIRONMENTAL IMPACT STATEMENT (2002).

259. *See* Alliance to Protect Nantucket Sound, Inc. v. United States Dep't of the Army, 288 F. Supp. 2d 64 (D. Mass. 2003), *appeal docketed*, No. 03-2604 (1st Cir. Nov. 17, 2003). *See also* Ten Taxpayers Citizen Group v. Cape Wind Assocs., 278 F. Supp. 2d 98 (D. Mass. 2003). "As the construction of a scientific testing tower does not fall within the Commonwealth's jurisdiction to regulate fisheries, no license from the Commonwealth [of Massachusetts] was required." 278 F. Supp. 2d at 100. *See, e.g.*, Beth Daley & Stephanie Ebbert, *Judge Rules Against Foes of Wind Farm; Says State Lacked a Right to Block the Test Tower*, BOSTON GLOBE, Aug. 21, 2003, at A1; David Arnold, *Wind-Power Plan For Cape in Court Today*, BOSTON GLOBE, Oct. 8, 2002, at B1; David Arnold, *Judge Clears Wind-Data Tower's Path*, BOSTON GLOBE, Oct. 9, 2002, at B2.

260. *Id.*

261. *See, e.g.*, U.S. ARMY CORPS OF ENG'RS, COMMENT SUMMARY: OFFSHORE WIND ENERGY GENERATION PROJECT, HORSESHOE SHOALS, NANTUCKET SOUND—SECTION 10 PERMIT APPLICATION, DRAFT ENVIRONMENTAL IMPACT STATEMENT (2002).

262. H.R. 793, 108th Cong. (2003). *See also* H.R. 5126, 107th Cong. (2002). H.R. 5126 also would have amended the OCSLA to authorize the U.S. Department of the Interior to grant easements and rights of way on the OCS for the development and production of energy resources. *See generally H.R. 5156, to Amend the Outer Continental Shelf Lands Act to Protect the Economic and Land Use Interests of the Federal Government: Hearing Before the Subcomm. on*

liam D. Delahunt (D-MA), introduced the Coastal Zone Renewable Energy Promotion Act of 2003,[263] which would amend the Coastal Zone Management Act of 1972[264] to authorize the U.S. Department of Commerce to license the use of the coastal zone for the development and production of renewable resources facilities.[265]

In March 2003, the Energy and Mineral Resources Subcommittee of the House Committee on Resources held a hearing on, *inter alia*, H.R. 793. The proposed Nantucket Sound wind farm received considerable attention at the hearing.[266] The Nantucket Alliance[267] argued that "[a]t the heart of the dispute over the use of offshore lands for wind energy plants and other facilities is the absence of a mechanism to authorize the use and occupancy of Federal property held in

---

Energy and Mineral Res. of the House Comm. on Res., 107th Cong. (2002).

263. H.R. 1183, 108th Cong. (2003).

264. *See generally* 16 U.S.C. §§ 1451-1465 (2003). The Coastal Zone Management Act governs the management, use, protection, and development of the coastal zone. *See id.* § 1451(a). "The term 'coastal zone' means the coastal waters (including the lands therein and thereunder) and the adjacent shorelands (including the waters therein and thereunder), strongly influenced by each other and in proximity to the shorelines of the several coastal states, and includes islands, transitional and intertidal areas, salt marshes, wetlands, and beaches." *Id.* § 1453(1).

265. The Delahunt bill states that "[e]xisting Federal and State law does not provide a process to address the unique issues raised by proposals to locate energy facilities for renewable resources in the marine environment, thereby hindering or jeopardizing the sensible development of these renewable energy resources." H.R. 1183, § 2(a)(4), 108th Cong. (2003). "Nationwide there are more than 50 proposals to construct and operate 'wind farms' for producing electricity in State and Federal waters, and some of these proposals include anchoring more than five hundred wind towers to the ocean seabed within sight of land." *Id.* § 2(a)(3).

266. *H.R. 793 and H.R. 794: Hearing Before the Subcomm. on Energy and Mineral Res. of the House Comm. on Res.*, 108th Cong. (2003). The hearing also addressed the Coal Leasing Amendments Act of 2003, H.R. 794, 108th Cong. (2003).

267. *See generally id.* at 7-16 (statement of the Alliance to Protect Nantucket Sound).

the public trust for private development."[268] The organization applauded the intent of H.R. 793, but argued that a federal program under the OCSLA[269] to regulate the development and production of energy resources on the OCS "must have respect for, and provide for the substantial involvement of[,] states, local governments and the public, in each area for which new offshore energy development is proposed."[270]

J. *Minnesota*

The Minnesota RPS is not a minimum requirement *per se* but an "objective" with no compliance or enforcement provisions.[271] Under the statute, all electric utilities that engage in retail sales of electric power in the state "shall make a good faith effort" to generate or procure, in 2005, 1% of their electric power from "eligible" renewable resources,[272] which include solar, wind, hydroelectric, hydrogen and biomass resources.[273] The objective increases 1% per year through 2015.[274] Thus, in 2015, Minnesota power producers must make a good faith effort to generate or procure at least 10% of the electric power they sell in the state from renewable resources.[275] In addition, 0.5% of the electric power sold in retail markets in Minnesota, in 2005, should be derived from biomass.[276] This objective increases to 1% by 2010.[277]

Enacted in 2001, the Minnesota RPS was included in legislation to streamline the process for state approval of sites for new generation

---

268. *Id.* at 8. "[T]here is a clear need for Congress to address the questions of whether and how to authorize the use of the OCS for non-oil and gas purposes." *Id.* at 9.
269. "The OCSLA is a law that has evolved since 1953 to provide a balanced Federal program intended to encourage the development of Federal oil and gas and mineral resources on the OCS." *Id.* at 10.
270. *Id.* at 11.
271. *See generally* MINN. STAT. § 216B.1691 (2003).
272. *See id.* § 216B.1691.2(a)(1).
273. *See id.* § 216B.1691.1(a)(1).
274. *See id.* § 216B.1691.2(a)(2).
275. *See id.* § 216B.1691.2(a)(3).
276. *See id.* § 216B.1691.2(b).
277. *See id.*

plants and routes for new transmission lines.[278] The statute was amended in 2003 in legislation to authorize an expansion of nuclear waste storage in Minnesota.[279] The amended statute directs the Minnesota Public Utilities Commission (Minnesota PUC) to adopt criteria and standards to measure the good faith efforts of electric utilities in the state to meet the renewable resources objectives of the statute.[280] The amended statute also requires biennial reports from utilities on their efforts to meet the objectives.[281] Finally, the

---

278. *See generally* 2001 Minn. Laws 212. *See, e.g., Minn. Senate Unanimous on Streamlining Siting for Power Plants, Transmission*, ELECTRIC UTIL. WK., May 14, 2001, at 16; *Minn. House Okays Bill to Streamline New Power Plants, Transmission Lines*, ELECTRIC UTIL. WK., May 21, 2001, at 19; *Minn. Bill Ready for Gov.'s Signature; Expedites Plant, Transmission Siting*, ELECTRIC UTIL. WK., May 28, 2001, at 7. "A comprehensive energy bill that provides for the streamlining of power plant siting and transmission line routing but does not deregulate the electric industry in Minnesota is on its way to Gov. Jesse Ventura, who is expected to sign the legislation." *Id.* Minnesota has not deregulated retail electric power markets. In September, the Minnesota Department of Commerce declared that it "cannot currently support authorizing retail competition in Minnesota, given the chaos that retail competition is causing in states that are experimenting with it, and given the looming reliability dilemma facing the Midwest region." DEP'T OF COMMERCE, STATE OF MINN., KEEPING THE LIGHTS ON: SECURING MINNESOTA'S ENERGY FUTURE (Sept. 2000). *See, e.g., Minn. Deregulation Effort Turns On Ensuring Adequate Capacity*, ELECTRIC UTIL. WK., Jan. 15, 2001, at 7. "Efforts by Minnesota electric utilities and business interests to get the state legislature to pass a comprehensive electric industry restructuring bill this session are given a slim chance for success, but proponents are pressing ahead anyway in the hope of laying the groundwork for future initiatives." *Id.*

279. 2003 Minn. Laws 11 (First Spec. Sess.); *See, e.g., Minn. Senate Okays Increase of Spent Fuel to Be Stored At Prairie Island*, ELECTRIC UTIL. WK., May 19, 2003, at 16; *Minn. Legislature Passes On-Site Waste Storage Bill Keeping Nuclear Plant On-Line*, ELECTRIC UTIL. WK., June 2, 2003, at 26.

280. *See* MINN. STAT. § 216B.1691.2(c) (2003).

281. *See id.* § 216B.1691.3(a).

amended statute authorizes the Minnesota PUC to establish a renewable energy credits trading program.[282]

The Minnesota PUC commenced a proceeding in June 2003 to adopt criteria and standards to measure the efforts of electric utilities to meet the objective of the state RPS.[283] Under the RPS, a rule is required by June 1, 2004.[284]

K. *Nevada*

The Nevada legislature included an RPS in legislation enacted in 1997 to deregulate the sale of electric power in retail markets.[285] In 2001, however, the legislature enacted a stand-alone RPS to replace the 1997 statute.[286] The current state RPS, [287] which increases the minima imposed by the 1997 statute, requires all electric utilities engaged in retail sales of electric power in Nevada to generate or procure 5% of their electric power from renewable resources in 2003 and 2004.[288] Under the stand-alone bill, renewable resources include biomass, geothermal, solar, wind resources, and hydropower.[289] The 5% minimum increases to 7% in 2005 and 2006,[290] to 9% in 2007

---

282. *See id.* § 216B.1691.4.
283. In the Matter of Detailing Criteria and Standards for Measuring an Electric Utility's Good Faith Efforts in Meeting the Renewable Energy Objectives Under Minn. Stat. § 216B.1691, Docket No. E-999/CI-03-869 (Minn. Pub. Utils. Comm'n June 13, 2003) (Notice of Comment Period on Procedures and Scope).
284. *See* MINN. STAT. § 216B.1691.2(c) (2003).
285. *See generally* 1997 Nev. Stat. 482. *See also Nevada Legislature Passes Restructuring Measure Mandating Retail Customer Choice By the End of 1999*, FOSTER ELECTRIC REP., July 16, 1997, at 26; *Nevada Retail Market to Open Up By End of 1999 Under Bill Okayed By Legislators*, ELECTRIC UTIL. WK., July 14, 1997, at 11.
286. 2001 Nev. Stat. 519.
287. *See generally* NEV. REV. STAT. §§ 704.7801-704.7828 (2003).
288. *See id.* § 704.7821.1(a).
289. *See id.* §§ 704.7811.1(a)-(e). A Nevada statute enacted in June 2003 added hydropower to the definition of renewable resources. 2003 Nev. Stat. 332. A hydropower plant can generate up to 30 MW of electric power. NEV. REV. STAT. § 704.7811.3 (2003).
290. *See id.* § 704.7821.1(b).

and 2008,[291] to 11% in 2009 and 2010,[292] to 13% in 2011 and 2012,[293] and to 15% in 2013 and each year thereafter.[294] In addition, the RPS requires that 5% of all electric power derived from renewable resources be generated by solar installations.[295] In June 2003, the Nevada state legislature amended the RPS to provide that, after January 1, 2004, 1 kWh of electric power generated from a solar photovoltaic system will be considered equal to 2.4 kWh for purposes of compliance with the state renewable resources quotas.[296]

The current Nevada RPS authorizes the state's Public Utilities Commission (Nevada PUC) to implement a renewable energy credits program.[297] The Nevada PUC is further directed to adopt regulations to determine the justness and reasonableness of terms and conditions of contracts executed by state electric utilities for the purchase of electric power derived from renewable resources.[298] Finally, all electric utilities engaged in retail electric power sales in Nevada are required to submit annual reports on their compliance with the RPS to the Nevada PUC.[299]

Pursuant to the RPS statute,[300] the Nevada PUC promulgated implementing regulations in May 2002.[301] The regulations detail the

---

291. *See id.* § 704.7821.1(c).
292. *See id.* § 704.7821.1(d).
293. *See id.* § 704.7821.1(e).
294. *See id.* § 704.7821.1(f).
295. *See id.* § 704.7821.2(a).
296. *See* 2003 Nev. Stat. 143. The system must be installed on the premises of a residential, commercial, or industrial customer that uses 50% of the electric power generated by the system. *See id.* § 2. The amendment also provides that, after January 1, 2004, 1 kWh of electric power generated from reverse polymerization will equal 0.7 kWh for purposes of compliance with the state renewable resources quotas. *See id.* § 3..
297. *See id.* § 704.7821.4.
298. *See id.* § 704.7821.7.
299. *See id.* § 704.7825.
300. *See id.* § 704.7828.
301. NEV. ADMIN. CODE ch. 704, §§ 8831-8893. *See generally* Investigation and Rulemaking to Promulgate and Adopt Regulations to Implement the Provisions of SB 372, Docket No. 01-7029 (Nev. Pub. Utils. Comm'n May 10, 2002) (Order Adopting Regulations).

annual reporting requirements under the statute.[302] On the basis of these reports, the Nevada PUC will determine which utilities are in compliance, and of those, which might have excess kilowatt hours to carry forward into the next reporting year.[303] A determination of noncompliance may result in an administrative fine,[304] from which an exemption may be requested.[305]

Under the regulations, the Nevada PUC must review and approve contracts concluded after May 31, 2002, for wholesale purchases of electric power generated from renewable resources.[306] The purchase price for electric power, although purchased to meet a state quota, must nonetheless be just and reasonable.[307]

In November 2002, the Nevada PUC promulgated interim regulations to establish a renewable energy credit program.[308] Under this program, the RPS minima may be met through the purchase of renewable energy credits from other utilities with excess electric power derived from renewable resources.[309] A June 2003 statute requires the Nevada PUC to adopt permanent regulations for a re-

---

302. *See id.* § 8879. "In the annual report, the provider must make an affirmative showing that the provider complied with its portfolio standard during the most recently completed compliance year. *Id.* § 8879.3.

303. *See id.* § 8881. "If the commission determines that the provider complied with its portfolio standard during the most recently completed compliance year, the commission will determine whether the provider is authorized to carry forward any excess kilowatt-hours from that compliance year. *Id.* § 8881.2.

304. *See id.* § 8881.5. "In determining whether to impose an administrative fine or take other administrative action against the provider, the commission will consider whether the provider should have built its own renewable energy systems to comply with its portfolio standard." *Id.* § 8881.6.

305. *See id.* § 8883.

306. *See id.* § 8885.

307. *See id.* § 8887.

308. Investigation and Rulemaking to Potentially Adopt Regulations to Implement a Renewable Energy Credit Program, Docket No. 02-5029 (Nev. Pub. Utils. Comm'n Nov. 20, 2002) (Order Adopting Regulations).

309. *See generally* Temp. Reg. No. T016-02 (Nev. Pub. Utils. Comm'n Date).

newable energy credit program.[310] The commission initiated a rulemaking proceeding in August 2003 to develop those regulations.[311]

The enactment of a state RPS has resulted in considerable development of renewable resources in Nevada.[312] Indeed, a recent report by the Center for Business and Economic Research at the University of Nevada - Las Vegas concluded that the state could lead the nation in renewable resources development and may eventually begin to export electric power.[313]

L. *New Jersey*

Like Connecticut, Maine, Massachusetts, and Nevada, New Jersey included an RPS in legislation to deregulate retail electric power markets. The Electric Discount and Energy Competition Act,[314] enacted February 1999, directed the New Jersey Board of Public Utilities (New Jersey BPU) to promulgate an interim RPS requiring that 2.5% of the electric power sold in the state by companies that pro-

---

310. 2003 Nev. Stat. 331. The statute also established a Solar Energy Systems Demonstration programs for the installation of solar energy systems in schools, public buildings, small businesses and private residences. *Id.* §§ 14-21.

311. *See, e.g.*, Investigation and Rulemaking to Consider Changes to the Commission's Regulations as a Result of AB 32, AB 296, AB 429 and AB 431, Docket No. 03-8010 (Nev. Pub. Utils. Comm'n Nov. 13, 2003) (Notice of Intent to Amend/Adopt Regulations).

312. *See, e.g.*, *Nevada Power Awards Six Long-Term Renewable Contracts for 237 MW*, ELECTRIC UTIL. WK., Mar. 17, 2003, at 13; *Nevada Okays 50-MW Solar Plant to Bring Utilities Into Compliance*, ELECTRIC UTIL. WK., Mar. 31, 2003. "Once built, the Duke Solar [Energy, Inc.] facility in Nevada will be the third largest solar plant in the U.S." *Id.*

313. CTR. FOR BUS. & ECON. RESEARCH, UNIV. OF NEV., LAS VEGAS, THE POTENTIAL ECONOMIC IMPACT OF NEVADA'S RENEWABLE ENERGY RESOURCES (2003); *see also Renewables Could Boost Nevada, Rural Areas 'Awash' in Geothermal, Solar, Wind*, ELECTRIC UTIL. WK., Apr. 14, 2003, at 12.

314. 1999 N.J. Laws 23. *See generally* N.J. REV. STAT. tit. 48, §§ 3-49 to 3-98 (2004); *As Expected, New Jersey Governor Whitman Signs Electric and Gas Industry Restructuring Bill*, FOSTER ELECTRIC REP., Feb. 17, 1999, at 8.

vide retail electricity or basic electric generation be derived from Class I or Class II renewable resources.[315] The interim RPS also requires that, after December 31, 2000, an additional 0.5% of the electric power sold in the state be derived from Class I renewable resources.[316] This particular quota would increase to an additional 1.0% on January 1, 2006 and to an additional 4.0% on January 1, 2012.[317] By January 1, 2012, therefore, 6.5% of the electric power sold in the state must be derived from renewable resources.

The state statute also authorized a renewable energy trading program.[318] The interim RPS standard could be effective for up to eighteen months and could be renewed thereafter.[319] The provision of the Electric Discount and Energy Competition Act that authorized the RPS also required electric utilities to disclose the environmental characteristics of electric power sold in New Jersey,[320] directed the New Jersey BPU to adopt regulations to implement this disclosure requirement,[321] authorized the board to implement an emissions portfolio standard,[322] and directed the board to adopt net metering standards.[323]

---

315. N.J. REV. STAT. tit. 48, § 3-87(d)(1) (2004). Class I renewable resources include solar technologies, photovoltaic technologies, wind technologies, fuel cells, geothermal technologies, wave or tide movement, and methane gas from landfills or biomass facilities. *Id.* Class II renewable resources include electric power from resource recovery facilities or hydropower facilities. *See id.* § 3-51.

316. *See id.* § 3-87(d)(2).

317. *See id.*

318. "An electric power supplier or basic generation service provider may satisfy the requirements of this subsection by participating in a renewable energy trading program approved by the board in consultation with the Department of Environmental Protection." *Id.*

319. "Such standards shall be effective as regulations immediately upon filing with the Office of Administrative Law and shall be effective for a period not to exceed 18 months, and may, thereafter, be amended, adopted or readopted by the board in accordance with the provisions of the Administrative Procedure Act." *Id.*

320. *See id.* § 3-87(a).

321. *See id.* § 3-87(b).

322. *See id.* § 3-87(c).

323. *See id.* § 3-87(e).

The New Jersey BPU adopted regulations to implement an interim RPS in July 2001.[324] The interim regulations require annual compliance reporting by the utilities to the New Jersey BPU.[325] This requirement provides that the standard cannot be met through spot market purchases of electric power generated from renewable resources.[326] All documentation related to compliance is subject to New Jersey BPU audit.[327] Although no renewable energy trading program was established under the interim regulations, the RPS minimum could be met through participation in such a program.[328] Finally, a company's shortfall in electric power sales from renewable resources could be remedied in a subsequent year.[329] A second successive shortfall, however, would be deemed a violation of the interim regulations,[330] punishable with financial penalties or license revocation.[331]

The interim RPS regulations expired on December 15, 2002 but were readopted by the New Jersey BPU. In January 2003, the governor of New Jersey established a Renewable Energy Task Force, which was directed to formulate recommendations to increase the use and development of renewable resources in the state. In its April 2003 report,[332] the task force recommended revisions to the state RPS regulations to, *inter alia*, increase the minimum for electric power derived from Class I renewable resources to 4% in 2008 and increase the minimum for electric power derived from Class I or

---

324. *See generally* N.J. ADMIN. CODE tit. 14, §§ 4-8.1 to 4-8.8 (2004). The eighteen-month regulations "are designed to encourage the development of renewable sources of electricity and new, cleaner generation technology; minimize the environmental impact of emissions from electric generation; reduce possible transport of emissions and minimize any adverse environmental impact from deregulation of energy generation." *Id.* § 4-8.1.
325. *See id.* § 4-8.4.
326. *See id.* § 4-8.4(d).
327. *See id.* § 4-8.6.
328. *See id.* § 4-8.7.
329. *See id.* § 4-8.8(a).
330. *See id.* § 4-8.8(b).
331. *See id.* § 4-8.8(b)(1)(i)-(ii).
332. RENEWABLE ENERGY TASK FORCE, RENEWABLE ENERGY TASK FORCE REPORT SUBMITTED TO GOVERNOR JAMES E. MCGREEVEY (Apr. 24, 2003).

Class II renewable resources to 20% in 2020,[333] establish a goal of 120,000MWh generated in New Jersey from photovoltaic solar facilities by 2008, [334] and implement a certificate-based program to track the environmental attributes of electric power sold in New Jersey.[335]

The New Jersey BPU has initiated a rulemaking proceeding to implement several of the Renewable Energy Task Force's recommendations. The board has issued draft regulations that would, for example, increase the minimum for electric power derived from Class I or Class II renewable resources to 6.5% in 2008. The draft regulations would authorize alternative compliance payments in lieu of strict compliance with the RPS.

M. *New Mexico*

Although New Mexico deregulated retail electric power markets in 1999[336] the legislation that did so, the Electric Utility Industry Restructuring Act of 1999, included no RPS.[337] In December 2002, however, the New Mexico Public Regulation Commission (New Mexico PRC) adopted an RPS,[338] which became effective in July

333. *See id.* at 3.

334. *See id.* at 4.

335. *See id.* at 5.

336. *See generally* 1999 N.M. Laws 294; *New Mexico Legislator's Proposed Bill May Jump Start Stalled Deregulation*, ELECTRIC UTIL. WK., Feb. 15, 1999, at 10. In 2001, the state legislature delayed the deregulation of retail markets. *See* 2001 N.M. Laws 5. In 2003, New Mexico repealed the Electric Utility Industry Restructuring Act of 1999. *See* 2003 N.M. Laws 336.

337. *See generally* N.M. STAT. ANN. §§ 62-3A-1 to 62-3A-23 (repealed).

338. *See generally Inquiry Into Renewable Energy As a Source of Electricity*, Docket No. 3619 (N.M. Pub. Reg. Comm'n Dec. 17, 2002) (Final Order). A group of public utilities petitioned for rehearing of the final order. *See Big Changes Sought in New Mexico's Renewable Energy Portfolio Mix*, ELECTRIC UTIL. WK., Feb. 3, 2003, at 25. The petition was denied. *New Mexico Regulators*, ELECTRIC UTIL. WK., Feb. 10, 2003, at 5.

2003.[339] The RPS is applicable to utilities which generate or sell electric power for consumption in New Mexico and that are subject to the jurisdiction of the New Mexico PRC. Under the regulation, 5% of electric power retail sales in New Mexico must be derived from renewable resources by January 1, 2006. This minimum will increase 1% per year until 2011, when 10% of sales must be derived from renewable resources.[340]

The regulation provides for the issuance of renewable energy certificates for the generation of electric power from renewable resources. These certificates are transferred upon the wholesale sale of the power.[341] The generation of one kWh of power from wind or hydroelectric installations is worth one kWh in certificates; the generation of one kWh from biomass, geothermal, or landfill gas installations is worth two kWh in certificates; and the generation of power from solar installations is worth three kWh in certificates.[342] Thus, an obligation under the state RPS to sell 3,000,000 kWh of electric power from renewable resources could be met through the purchase and sale of 1,000,000 kWh of electric power generated by solar installations. The renewable energy certificates may be traded and sold.[343]

Three reporting requirements are imposed on utilities engaged in retail electric power sales in New Mexico. First, those utilities must file plans for general long-term RPS compliance with the New Mexico PRC by November 1, 2003.[344] Second, by October 1, 2004 and

---

339. *See generally* N.M. ADMIN. CODE tit. 17, §§ 573.1-573.15 (2003). "The purpose of this rule is to establish a process for promoting the use and development of renewable energy in New Mexico to assure that electric consumers obtain adequate and reliable electric services at just and reasonable rates. Encouraging the use of renewable resources will provide diversity and so strengthen the stability of electricity supply. It will also enhance the health and welfare of the state by preserving the environment, stimulating economic development, and conserving water and non-renewable resources, while reducing the state's reliance on fossil fuel resources and vulnerability to market fluctuations." *Id.* § 573.6.

340. *See id.* § 573.10(A)(2).

341. *See id.* § 573.10(C)(2).

342. *See id.* §§ 573.10(C)(1)(a)-(c).

343. *See id.* § 573.10(C)(3).

344. *See id.* § 573.11(A).

each October 1 thereafter, the utilities must file specific proposed portfolios of electric power supplies for the next calendar year.[345] Third, by July 1, 2004 and each July 1 thereafter, those utilities must file reports on specific power supplies for the previous year.[346] Finally, the RPS regulation directs the New Mexico PRC to adopt, as needed, additional rules for the administration and enforcement of the RPS.[347]

N. *Texas*

Like New Mexico, Texas did not explicitly legislate a state RPS. In legislation to deregulate retail electric power markets in Texas,[348] however, the state indicated that "[i]t is the intent of the legislature that by January 1, 2009, an additional 2,000 megawatts of generating capacity from renewable energy technologies will have been installed in this state."[349] In addition, the statute directed the Public

---

345. *See id.* § 573.11(B).

346. *See id.* § 573.10(C). "This report shall include an itemization of all power and energy purchases and sales, and a complete list, with copies, of all renewable energy certificates." *Id.*

347. *See id.* § 573.15.

348. 1999 Tex. Gen. Laws 405. *See generally Texas Bill Clears Last Hurdle in House, Competition to Begin in 2002*, ELECTRIC UTIL. WK., May 31, 1999, at 9; *Texas Restructuring Legislation Passes Senate Handily, Support in House Strong*, ELECTRIC UTIL. WK., Mar. 22, 1999, at 10. *See also Texas Confident It Can Avoid California Troubles When Competition Starts Jan. 1*, ELECTRIC UTIL. WK.., Dec. 17, 2001, at 20. "Texas, the nation's second-most populous state, is poised to give millions of electric utility customers the right to select their supplier, and is confident it will avoid the deregulation crisis that plagued California in 2000." *Id.*; *Reliant and ComEd Report That Electric Competition Is Flourishing in Texas and Illinois*, FOSTER ELECTRIC REP., Aug. 13, 2003, at 16. "Unlike most of the rest of the country, electricity customers in Texas and Illinois are switching to alternative electricity suppliers in record numbers, and the two states' new competitive marketplaces are thriving, according to recent releases by both Reliant Energy, Inc. and Commonwealth Edison Co." *Id.*

349. TEX. UTIL. CODE ANN. § 39.904(a)(2004). "The cumulative installed renewable capacity in this state shall total 1,280 megawatts

Utility Commission of Texas (Texas PUC) to establish a renewable energy credits trading program.[350] Finally, the commission was directed to adopt rules to enforce the statute.[351]

Consistent with this legislative objective, the Texas PUC adopted an RPS in December 1999.[352] The RPS establishes milestones toward compliance with the target of 2000 MW of electric power from new renewable resources by 2009.[353] Under the rule, the milestones are met through purchase requirements, calculated on the basis of each utility's pro rata share of statewide retail electric power sales.[354] Thus, a market share of 20% in 2006 will result in an obligation to purchase 280 MW of electric power generated from new renewable resources.

The Texas RPS also establishes a renewable energy credit trading program to track compliance with the purchase requirements.[355] The renewable energy credits may be produced, transferred, and retired by utilities that generate electric power from new renewable resources, by utilities that engage in retail sales in Texas, and by other

---

by January 1, 2003, 1,730 megawatts by January 1, 2005, 2,280 megawatts by January 1, 2007, and 2,880 megawatts by January 1, 2009." *Id.*

350. *See id.* § 39.904(b).

351. *See id.* § 39.904(c). The rules were to establish annual renewable resources requirements for electric utilities engaged in retail sales and were to establish performance standards for new renewable resources projects. *Id.* §§ 39.904(c)(1)-(2).

352. *See generally* TEX. ADMIN. CODE tit. 16, § 25.173 (2004). "The purpose of this section is to ensure that an additional 2,000 megawatts (MW) of generating capacity from renewable energy technologies is installed in Texas by 2009 pursuant to the Public Utility Regulatory Act (PURA) §39.904 [and] to establish a renewable energy credits trading program that would ensure that the new renewable energy capacity is built in the most efficient and economical manner . . . ." *Id.* § 25.173(a).

353. *See id.* § 25.173(h)(1). The milestones include 400 MW of electric power from new renewable resources in 2002 and 2003; 850 MW in 2004 and 2005; 1400 MW in 2006 and 2007; and 2000 MW in 2008 and 2009. *Id.*

354. *See id.* § 25.173(h)(2).

355. *See id.* § 25.173(d).

electric power market participants.[356] Not all facilities that generate electric power from renewable resources are eligible for renewable energy credits under the rule,[357] and there are provisions for the registration and certification of those that are.[358]

Finally, the rule authorizes the imposition of penalties upon electric utilities that have not accumulated renewable energy credits sufficient to meet purchase requirements under the RPS.[359] Penalties of $50 per MWh or 200% of the average cost of credits required to meet the credit deficit can be imposed.

O. *Wisconsin*

Although Wisconsin has hesitated to deregulate retail electric power markets,[360] the state enacted an RPS in 1999 by including it in

---

356. *See id. See also id.* § 25.173(k). The rule provides for renewable energy credits to be awarded to utilities that generate electric power from new renewable resources. *Id.* § 25.173(k)(1). The rule provides for electric utilities engaged in retail sales to retire credits to meet purchase requirements. *Id.* § 25.173(k)(4).

357. *See id.* § 25.173(e) (facilities eligible for renewable energy credits); *Id.* § 25.173(f) (facilities not eligible for renewable energy credits). For example, a fossil plant that is retooled to use renewable resources is not eligible for credits. *Id.* § 25.173(f)(3).

358. *See id.* § 25.173(n).

359. *See id.* § 25.173(o).

360. *See, e.g., Wis. PSC: Retail Competition Is Not Inevitable or Necessarily Desirable*, ELECTRIC UTIL. WK., Nov. 10, 1997, at 13. "The PSC noted that electric utilities in Wisconsin do not have the existing infrastructure in place to accommodate robust wholesale power transactions, much less retail competition. As a result, rather than concentrate on retail competition, the commission will continue to focus primarily on the development of the infrastructure necessary to assure reliable electric service and to remove barriers to wholesale competition." *Id.*; *Wisconsin PSC Delays Electricity Restructuring Until After Reliability Concerns Are Resolved and the Necessary Infrastructure Is Established*, FOSTER ELECTRIC REP., Nov. 19, 1997, at 19. "Once considered to be at the forefront of states' efforts to establish retail competition, the Wisconsin Public Service Commission (PSC) on 10/30/97 decided to back off from such pursuit until after certain reliability issues are addressed and consumer safeguards

a budget bill.[361] Under the state standard,[362] 0.50% of the electric power sold by electric utilities engaged in retail sales must be derived from renewable resources by December 31, 2001.[363] This minimum increases to 0.85% by December 31, 2003; 1.20% by December 31, 2005; 1.55% by December 31, 2007; 1.90% by December 31, 2009; and 2.20% by December 31, 2011.[364] The statute authorizes a renewable resource credit program for the sale and purchase of credits for electric power generated from renewable re-

---

are in place, with the establishment of an independent system operator (ISO) being at the top of the list of safeguards." *Id.*

361. 1999 Wis. Laws 9. Enacted in October 1999, the budget bill included provisions on public utility holding companies, electric power transmission, and electric utilities regulation. In particular, the electric utilities provisions of the 750-page budget bill (i) liberalized limits, under the Wisconsin Utility Holding Company Act, on non-utility assets held by public utility holding companies in exchange for the transfer of electric transmission facilities to separate transmission companies, (ii) established programs to improve the construction and operation of electric transmission facilities, (iii) expanded programs related to: low-income energy assistance, and energy conservation, and renewable resources, (iv) limited real estate activities of certain public utilities, (v) protected employees of public utilities, and (vi) addressed air pollution emissions by electric utilities. In anticipation of this so-called "Reliability 2000" legislation, Alliant Energy Corporation, Wisconsin Energy Corporation, the corporate parent of Wisconsin Electric Power Company, and WPS Resources Corporation, the corporate parent of Wisconsin Public Service Corporation, agreed in June 1999 to the transfer of their transmission assets to an independent transmission corporation. *See Wisconsin Utilities Agree to Form A Transco*, FOSTER ELECTRIC REP., June 16, 1999, at 9; *Wisc. Governor's Plan Trades Asset Cap Relief for Divestiture of Transmission*, ELECTRIC UTIL. WK., June 7, 1999, at 3.

362. *See generally* WIS. STAT. § 196.378 (2003).

363. *See id.* § 196.378.2(a)(1).

364. *See id.* §§ 196.378.2(a)(2)-(6).

365. *See id.* § 196.378.3. The Wisconsin Public Service Commission (Wisconsin PSC) promulgated in April 2001 regulations to implement a renewable resource credit trading program. *See generally* WIS. ADMIN. CODE §§ 118.01-118.06 (2004).

sources,[366] and authorizes fines of up to $500,000 for failures to meet the state RPS minima for electric power from renewable resources.[367]

The Wisconsin RPS supplemented a statute enacted in April 1998 to promote the development of independent power production (IPP) as well as the development of renewable resources in the state.[368] For example, the law permits the construction of IPP facilities under 100 MW without Wisconsin PSC review or approval.[369] The law also required all eastern Wisconsin electric utilities to construct or arrange for the construction of new facilities for the generation of 50 MW of electric power from renewable resources by December 31, 2000.[370]

In September 2003, the governor of Wisconsin established the Governor's Task Force on Energy Efficiency and Renewables "[t]o advise the Governor on creative, consensus policy options and practical business initiatives to restore Wisconsin as a leader in energy efficiency and renewable energy sources."[371]

III. EVOLUTION OF PROPOSALS FOR A FEDERAL RPS

A. *105th Congress (1997-1998)*

Proposals for a federal RPS originally took root in the 105th Congress in the course of consideration of proposals to deregulate and

---

366. *See id.* § 196.378.3. The Wisconsin Public Service Commission (Wisconsin PSC) promulgated in April 2001 regulations to implement a renewable resource credit trading program. *See generally* WIS. ADMIN. CODE §§ 118.01-118.06 (2004).

367. *See id.* § 196.378.5.

368. *See generally* 1997 Wis. Laws 204.

369. *See generally* WIS. STAT. § 196.491 (2003).

370. *See id.* § 196.377.2(b). In addition, the Wisconsin PSC shall "encourage public utilities to develop and demonstrate electric generating technologies that utilize renewable sources of energy, including new, innovative or experimental technologies." *Id.* § 196.377.1.

371. Wisc. Exec. Order No. 25 (2003) (relating to the Creation of the Governor's Task Force on Energy Efficiency and Renewables).

372. *See generally* ENERGY INFO. ADMIN., U.S. DEP'T OF ENERGY, THE RESTRUCTURING OF THE ELECTRIC POWER INDUSTRY: A

restructure electric utilities and to require the introduction of competition in retail electric power markets.[373] Those debates coincided

---

CAPSULE OF ISSUES AND EVENTS, DOE/EIA-X037 (1997) ("The old school of thought that considered electric utility power generation, transmission, and distribution a 'natural monopoly' has given way to a new school of thought. Today, there is a general consensus among legislators, regulators, industry analysts, and economists that the generation segment of power supply in today's environment would be more efficient and economical in a competitive market. In contrast, transmission and distribution will likely remain regulated and noncompetitive."); ENERGY INFO. ADMIN., U.S. DEP'T OF ENERGY, THE CHANGING STRUCTURE OF THE ELECTRIC POWER INDUSTRY: AN UPDATE ix, DOE/EIA-0562(96) (1996) (" "Electric utilities—one of the largest remaining regulated industries in the United States—are in the process of transition to a competitive market. Traditionally vertically integrated, the industry will in all probability be segmented at least functionally into its three component parts: generation, transmission, and distribution. The proposals and issues are being addressed in Federal and State legislation and are being debated in State regulatory hearings."); ENERGY INFO. ADMIN., U.S. DEP'T OF ENERGY, THE CHANGING STRUCTURE OF THE ELECTRIC POWER INDUSTRY, 1970-1991, DOE/EIA-0562 (1993). *See also* ENERGY INFO. ADMIN., U.S. DEP'T OF ENERGY, CHALLENGES OF ELECTRIC POWER INDUSTRY RESTRUCTURING FOR FUEL SUPPLIERS, DOE/EIA-0623 (1998); *Gas-Fired Generation Could Grow By As Much As 33 Percent By 2015 Assuming Full Competition In Electricity Markets, According To EIA Study*, FOSTER ELECTRIC REP., Sept. 23, 1998, at 28 ("Gas-fired generation could grow by as much as 33 percent, and coal-fired generation could decline by as much as 9 percent, by the year 2015 if U.S. markets for electricity become fully competitive, according to a report -- *Challenges of Electric Power Industry Restructuring for Fuel Suppliers* -- released [on September 2, 1998] by the Energy Information Administration"); *Restructuring Energy Industries: Lessons From Natural Gas*, ENERGY INFO. ADMIN., U.S. DEP'T OF ENERGY, NATURAL GAS MONTHLY vii (1997).

373. *See generally* ENERGY INFORMATION ADMIN., U.S. DEP'T OF ENERGY, THE RESTRUCTURING OF THE ELECTRIC POWER INDUSTRY: A CAPSULE OF ISSUES AND EVENTS, DOE/EIA-X037 (1997). "The old school of thought that considered electric utility power generation, transmission, and distribution a 'natural monopoly' has given

with the conclusion, in December 1997, of a protocol to the 1992 United Nations Framework Convention on Climate Change,[374] the Kyoto Protocol.[375] If ratified, the Protocol will commit the U.S. to,

---

way to a new school of thought. Today, there is a general consensus among legislators, regulators, industry analysts, and economists that the generation segment of power supply in today's environment would be more efficient and economical in a competitive market. In contrast, transmission and distribution will likely remain regulated and noncompetitive." *Id.* ENERGY INFO. ADMIN., U.S. DEP'T OF ENERGY, THE CHANGING STRUCTURE OF THE ELECTRIC POWER INDUSTRY: AN UPDATE ix, DOE/EIA-0562(96)(Dec. 1996). "Electric utilities—one of the largest remaining regulated industries in the United States—are in the process of transition to a competitive market. Traditionally vertically integrated, the industry will in all probability be segmented at least functionally into its three component parts: generation, transmission, and distribution. The proposals and issues are being addressed in Federal and State legislation and are being debated in State regulatory hearings." *Id.* ENERGY INFO. ADMIN., U.S. DEP'T OF ENERGY, CHANGING STRUCTURE OF THE ELECTRIC POWER INDUSTRY, 1970-1991, DOE/EIA-0562 (1993). *See also* ENERGY INFORMATION ADMIN., U.S. DEP'T OF ENERGY, CHALLENGES OF ELECTRIC POWER INDUSTRY RESTRUCTURING FOR FUEL SUPPLIERS, DOE/EIA-0623 (1998); *Gas-Fired Generation Could Grow By As Much As 33 Percent By 2015 Assuming Full Competition In Electricity Markets, According To EIA Study*, FOSTER ELECTRIC REP., Sept. 23, 1998, at 28 ("Gas-fired generation could grow by as much as 33 percent, and coal-fired generation could decline by as much as 9 percent, by the year 2015 if U.S. markets for electricity become fully competitive, according to a report -- *Challenges of Electric Power Industry Restructuring for Fuel Suppliers* -- released [on September 2, 1998] by the Energy Information Administration"); *Restructuring Energy Industries: Lessons From Natural Gas*, ENERGY INFO. ADMIN., U.S. DEP'T OF ENERGY, NATURAL GAS MONTHLY vii (1997).

374. 1992 U.N. Framework Convention on Climate Change, *opened for signature* June 4, 1992, S. TREATY DOC. NO. 102-38 (1992), 31 I.L.M. 849 (1992) (entered into force Mar. 21, 1994).

375. *Kyoto Protocol to the U.N. Framework Convention on Climate Change*, FCCC Conference of the Parties, 3rd Sess., U.N. Doc. FCCC/CP/1997/L.7/Add. 1 (1997), 37 I.L.M. 22 (1998); *see also*

inter alia, a 7% reduction from 1990 carbon dioxide emissions levels by the year 2012.[376] The Kyoto Protocol impressed upon both the Clinton administration and the 105th Congress the need to address environmental concerns in legislation to deregulate and restructure electric utilities.[377]

Among the first legislative proposals to deregulate and restructure electric utilities were S. 237, the Electric Consumers Protection Act of 1997,[378] and H.R. 655, the Electric Consumers' Power to Choose Act of 1997.[379] The former was introduced in the Senate by Sen. Dale Bumpers (D-AR) in January 1997, and the latter was introduced in the House by Rep. Dan Schaefer (D-CO) in February 1997.[380] Both chambers had Republican majorities at the time.

U.N. Doc. FCCC/CP/1997/7/Add. 2 (final version of Kyoto protocol); *see generally Kyoto Protocol to the United Nations Framework Convention on Climate Change*, 92 A.J.I.L. 315 (1998).

376. *See generally* CONG. RESEARCH SERV., GLOBAL CLIMATE CHANGE TREATY: THE KYOTO PROTOCOL, CRS REPORT NO. 98-2; CONG. RESEARCH SERV., GLOBAL CLIMATE CHANGE TREATY: NEGOTIATIONS AND RELATED ISSUES, CRS REPORT NO. 97-1000. "In the aftermath of last week's historic agreement in Kyoto mandating greenhouse gas emissions reductions by industrialized nations, electric utilities find themselves at the start of a still unpaved road with no map of what lies ahead." *Kyoto Warming Treaty Hands Utilities a Heavy, But Still Undefined Mandate*, ELECTRIC UTIL. WK., Dec. 15, 1997, at 1.

377. *Administration Electricity Plan Still a Puzzle, Environment Remains Battle*, ELECTRIC UTIL. WK., May 26, 1997, at 11; *Peña Calls Environment Key Part of Administration Electricity Bill*, ELECTRIC UTIL. WK., June 16, 1997, at 2; *Key Administration Officials Link Electric Utility Industry Restructuring With Climate Change Policy*, FOSTER ELECTRIC REP., Dec. 17, 1997, at 1. *See also Implications of the Kyoto Protocol on Climate Change: Hearing Before the Senate Comm. on Foreign Relations*, 105th Cong. (1998); *Global Climate Change: Hearings Before the Senate Comm. on Env't and Pub. Works*, 105th Cong. (1997).

378. S. 237, 105th Cong. (1997).

379. H.R. 655, 105th Cong. (1997).

380. *See also* Electric Power Competition and Consumer Choice Act of 1997, H.R. 1960, 105th Cong. (1997). H.R. 1960 was introduced by Rep. Edward J. Markey (D-MA) on June 17, 1997. *Id.*

H.R. 655 would have required the introduction of competition in retail electric power markets,[382] repealed provisions of PUHCA,[383] and repealed Section 210 of PURPA.[384] The bill also would have established a federal RPS for all companies with generation assets.[385] Through 2004, H.R. 655 would have required that 2% of the power produced by companies with generation assets be from renewable fuels; through 2009, 3%; and thereafter, 4%.[386] The RPS obligation could be met through self-generation of "green" power, which would be rewarded by the Commission with renewable energy credits, or through the purchase of renewable energy credits from companies with "excess" power from renewable fuels.[387]

S. 237, like H.R. 655, also would have required the introduction of competition in retail electric power markets,[388] repealed PUHCA,[389] repealed Section 210 of PURPA for new facilities,[390] established a federal RPS,[391] and established a program for renewable energy credits.[392] S. 237 would have required that 5% of the power sold between 2003 and 2007 by companies that distribute retail electric power be generated by renewable fuels; 9% between 2008 and 2012; and 12% thereafter.[393]

---

381. S. 237, 105th Cong. (1997).
382. H.R. 655, §§ 101-114, 105th Cong. (1997).
383. *See id.* §§ 201-213.
384. *See id.* § 301.
385. *See id.* § 113(a).
386. *See id.* § 113(b).
387. *Id.* § 113(c). *See also* H.R. 1960, § 126, 107th Cong. (1997). The federal RPS in H.R. 1960 would have been applicable to entities that generate and sell electric power. *Id.* § 126(a). H.R. 1960 would have established a renewable energy credit program. *Id.* § 126(b). H.R. 1960 would have required 3% of the power sold in 1998 by entities that generate and sell electric power to be generated by renewable fuels; and 10% in and after 2010. *Id.* § 126(a).
388. S. 237, §§ 101-116, 105th Cong. (1997).
389. *See id.* §§ 201-212.
390. *See id.* § 302.
391. *See id.* § 110(a).
392. *See id.* § 110(d).
393. *Id.* § 110(c). *But see NHA Told to Brace for Battle in Congress Over Including Hydro in Portfolio Measure*, ELECTRIC UTIL. WK., Mar. 31, 1997, at 17. "While Bumpers has announced plans to

In two days of hearings in October 1997, the Energy and Power Subcommittee of the House Committee on Energy and Commerce examined H.R. 655 and four related bills.[394] The DOE expressed general support for competition in retail electric power markets,[395] which the Department estimated would result in savings of $20 billion per year. The DOE emphasized, however, that "[o]ur goal is to

---

ratchet down his bill's 12% renewable energy portfolio standard . . . the ranking minority member of the Senate Energy and Natural Resources Committee has not announced what percentage he thinks would represent a more workable [requirement]." *Id.* *See also* Electric System Public Benefits Protection Act of 1997, S. 687, 105th Cong. (1997). S. 687 was introduced by Sen. James M. Jeffords (R-VT) on May 1, 1997. *Id.* The federal RPS in S. 687 would have been applicable to non-hydroelectric facilities that generate and sell electric power. *See id.* § 6(a). S. 687 would have established a renewable energy credit program. *See id.* § 6(c). S. 687 would have required 3% of the power sold in 2001 by non-hydroelectric facilities that generate and sell electric power to be generated by renewable fuels; 5% of the power sold in 2005; 9% of the power sold in 2009; 13% of the power sold in 2013; 15% of the power sold in 2015; and 20% in and after 2020. *See id.* § 6(b). "The Jeffords' [sic] bill [S.687] would also create a national renewables portfolio standard similar to that advocated by the American Wind Energy Association and others." *Sen. Jeffords Offers Restructuring Bill Imposing a Transmission Surcharge to Promote Renewable Energy*, FOSTER ELECTRIC REP., May 7, 1997, at 11.

394. *Electricity Competition: Hearings Before the Subcomm. on Energy and Power of the House Comm. on Energy and Commerce*, 105th Cong. (1997) (hereinafter *House Hearings*). The hearings also examined H.R. 338, the Ratepayer Protection Act of 1997, H.R. 1230, the Consumers' Electric Power Act of 1997, H.R. 1359, and H.R. 1960. *See also Moler Tells House Subcommittee That Administration Power Industry Restructuring Bill Is Still in Limbo, Some Congressmen Also Voice Indecisiveness*, FOSTER ELECTRIC REP., Oct. 29, 1997, at 7.

395. "The [DOE] is confident that a properly structured retail competition system can deliver electricity more efficiently, at lower cost, and just as reliably as our present system of regulated monopolies." *House Hearings*, *supra* note 393 at 32 (statement of Hon. Elizabeth A. Moler, Deputy Sec'y, Dep't of Energy).

develop a policy that strikes the proper balance between strong federal support for competition and the tradition of State control of retail electricity policy."[396] In a prepared statement on the proposed legislation, the FERC focused on developments in wholesale electric power markets,[397] *e.g.*, Order No. 888 issued in 1996,[398] but urged the repeal of PUHCA and suggested that the details of competition in retail markets should be left to the states, "where governance of the retail marketplace has historically resided."[399]

The Subcommittee heard considerable testimony against the federal RPS proposed in H.R. 655 and H.R. 1960. The Edison Electric Institute (EEI), the principal national trade association for for-profit electric utilities, argued that "there is a glaring inconsistency with supporting customer choice while essentially forcing consumers to purchase certain kinds of power."[400] The Alliance for Competitive Electricity (ACE), an *ad hoc* trade association of electric utilities, also rejected the RPS proposals, which, the organization opined, would be difficult to enforce.[401] Finally, the National Association of

396. *Id.*

397. *Id.* at 34 (statement of James H. Hoecker, Chairman, Fed. Energy Regulatory Comm'n).

398. Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities, Order No. 888, 61 Fed. Reg. 21,540 (May 10, 1996), F.E.R.C. (CCH) Statutes & Regulations ¶ 31,036 (1996), *order on reh'g*, Order No. 888-A, 62 Fed. Reg. 12,274 (Mar. 14, 1997), F.E.R.C. (CCH) Statutes & Regulations ¶ 31,048 (1997), *order on reh'g*, Order No. 888-B, 81 F.E.R.C. (CCH) ¶ 61,248 (1997), *order on reh'g*, Order No. 888-C, 82 F.E.R.C. (CCH) ¶ 61,046 (1998), *aff'd in relevant part sub nom.* Transmission Access Policy Study Group v. FERC, 225 F.3d 667 (D.C. Cir. 2000), *aff'd sub nom.* New York v. FERC, 535 U.S. 1 (2002).

399. *House Hearings*, *supra* note 393.

400. *Id.* at 200, 205 (statement of E. Linn Draper, Jr., Chairman, President and CEO, Am. Elec. Power Co., on behalf of Edison Elec. Inst.). "In a competitive market, consumers should be able to purchase power from renewable sources if they so choose, but not be forced to do so." *Id.*

401. *See id.* at 193, 198 (statement of Arthur W. Adelberg, Executive V.P., Cent. Maine Power Co., on behalf of ACE). "First, renewable energy portfolio standards amount to a hidden tax on elec-

Regulatory Utility Commissioners (NARUC), a trade association of state public service commissions, took no position on the proposed federal RPS in H.R. 655 and H.R. 1960.[402]

In apparent deference to states' rights, the Energy and Power Subcommittee invited the American Law Division of the Congressional Research Service (CRS) to comment on Tenth Amendment issues associated with H.R. 655 and the federal imposition of competition in retail electric power markets, the regulation of which has been the traditional prerogative of state public service commissions.[403] The CRS confirmed that a federal mandate for retail competition would not run afoul of the U.S. Constitution, which, under the Commerce Clause,[404] authorizes the federal government to regulate the sale and distribution of electric power. Under U.S. Supreme Court precedent, however, the federal government cannot completely preempt this state prerogative by requiring that the sale and distribution of electric power be regulated in accordance with federal dictates.[405]

Nonetheless, under the Commerce Clause and consistent with the Tenth Amendment,[408] the federal government can, in lieu of preemp-

---

tricity consumers of an uncertain amount. Second, renewable portfolio standards are subject to abuse. Tracing electrons is not an easy thing to do. One need only recall the 'old oil to new oil' accounting daisy chains to be concerned about the enforceability of portfolio standards. Third, it is difficult to envision how to apply a renewable portfolio standard to imported power coming from Canada, or Mexico or to self-generation. And fourth, a portfolio standard discriminates against very clean fossil-fueled power, like natural gas turbines or hydrocarbon powered fuel cells." *Id.*

402. *See id.* at 43, 48 (statement of Susan F. Clark, Comm'r, Florida Publ. Serv. Comm'n, on behalf of NARUC). "While the NARUC has been a longstanding supporter of *voluntary* programs developed by the States to support renewable energy, the Association has taken no position on the RPS approach." *Id.* (emphasis added).

403. *See generally id.* at 270 (statement of George Costello, Legislative Attorney, Am. Law Div., Cong. Research Serv.).

404. U.S. CONST., art. I, § 8, cl. 3.

405. *See, e.g.*, Hodel v. Va. Surface Mining & Reclamation Ass'n, 452 U.S. 264 (1981). *See also* New York v. United States, 505 U.S. 144 (1992); Printz v. United States, 521 U.S. 898 (1997).

406. U.S. CONST., art. I, § 8, cl. 3.

tion, *permit* the states to regulate the sale and distribution of electric power in accordance with federal dictates. According to the CRS, "[g]enerally speaking, if states are given a choice about whether to regulate, the legislation is permissible [under the U.S. Constitution]. If, however, states are required to regulate according to federal standards, the legislation is unconstitutional."[409] Also in lieu of preemption, and consistent with the "cooperative federalism" of Title I of PURPA, the federal government can require the states to "consider" the adoption and implementation of federal standards.[410]

A subsequent federal RPS proposal was included in much anticipated and long awaited legislation submitted to the 105th Congress by the Clinton Administration in the Second Session in 1998.[411] S.2287, the Comprehensive Electricity Competition Act (CECA),[412] was introduced by Sen. Frank H. Murkowski (R-AK), Chairman of

---

407. *See, e.g.*, Hodel v. Va. Surface Mining & Reclamation Ass'n, 452 U.S. 264 (1981). *See also* New York v. United States, 505 U.S. 144 (1992); Printz v. United States, 521 U.S. 898 (1997).

408. U.S. CONST. amend. X.

409. *Electricity Competition: Hearings Before the Subcomm. on Energy and Power of the House Comm. on Energy and Commerce*, 105th Cong. 270 (1997) (statement of George Costello, Legislative Attorney, Am. Law Div., Cong. Research Serv.) [hereinafter Statement of George Costellos]. "There are, to be sure, some gray areas when it comes to the commerce power and the tenth Amendment. The law is evolving, and the Court seems to be reigning in federal power to some degree." *See, e.g.*, United States v. Lopez, 514 U.S. 549 (1995).

410. *See, e.g.*, FERC v. Mississippi, 456 U.S. 742, 102 S.Ct. 2126, 72 L.Ed.2d 532 (1982). *But see* Statement of George Costello, *supra* note 408, at 272. "To summarize, it is no longer clear that FERC v. Mississippi remain[s] intact. What this means, therefore, is that proposals that would require state utility commissions to 'consider' various courses of action may be subject to challenge." *Id.*

411. "[DOE Secretary] Peña indicated that the Administration should have a long-awaited bill to restructure the electric power industry ready by early July." *Peña Expects to Have Administration Bill to Restructure the Electric Power Industry Ready by July; Outlines Key Considerations, Including Environmental Issues*, FOSTER ELECTRIC REP., June 18, 1997, at 16.

412. S. 2287, 105th Cong. (1998).

the Senate Committee on Energy and Natural Resources, on behalf of the Administration in July 1998.[413] The bill would have, *inter alia*, provided for competition in retail electric power markets,[414] clarified the role of states in the regulation of retail electric transmission services,[415] reformed Section 210 of PURPA,[416] reformed PUHCA,[417] authorized the FERC to regulate a national electric reliability organization,[418] and authorized the Environmental Protection Agency (EPA) to establish a new program to regulate nitrogen oxide emissions.[419]

Section 302 of CECA would have amended Title VI of PURPA to establish an RPS.[420] Title VI of PURPA was enacted with eight miscellaneous provisions,[421] to which Section 302 would have added

---

413. *See generally* U.S. DEP'T. OF ENERGY, COMPREHENSIVE ELECTRICITY COMPETITION ACT: SUPPORTING ANALYSIS, DOE/PO-0057 (1998) [hereinafter SUPPORTING ANALYSIS]; *Id.*, at app. A (containing supplementary figures and graphs).

414. S. 2287, §§ 101-103, 105th Cong. (1998). The DOE estimated that the implementation of competition in retail markets would reduce national electric power costs by $30.7 billion by 2010—a reduction of 12%. SUPPORTING ANALYSIS, *supra* note 412. *See generally DOE Advisor Stumps for Federal Legislation on Retail Competition*, ELECTRIC UTIL. WK.., June 22, 1998, at 9.

415. S. 2287, § 201, 105th Cong. (1998).

416. *See id.* § 304.

417. *See id.* § 401.

418. *See id.* § 501.

419. *See id.* § 601.

420. S. 2287, § 302, 105th Cong. (1998). "Specific provisions of the Administration's proposed legislation also provide direct environmental benefits. The include a [RPS] to ensure a minimum level of generation from non-hydroelectric renewable energy sources." SUPPORTING ANALYSIS, *supra* note 412.

421. Section 601 of PURPA directed the DOE to examine the effect of federal law on retail electric power rates established by state public service commission. Pub. L. No. 95-617, § 601, 92 Stat. at 3164. Section 602 authorized the DOE to acquire land in North Dakota, South Dakota and Nebraska for transmission facilities for an electric power exchange with Canada. Pub. L. No. 95-617, § 602, 92 Stat. at 3164 (codified at 16 U.S.C. § 824a-4. Section 603 authorized DOE grants to an institute established by NARUC for research

a ninth miscellaneous provision imposing a federal RPS on entities that sell retail electric power.[422] Specifically, CECA would have required 5.5% of all the power sold between 2010 and 2015 by companies that sell retail electric power to be from renewable fuels.[424] The RPS obligation could be met through self-generation of "green" power, which would be rewarded by the Commission with renewable energy credits, or through the purchase of renewable energy credits from companies with "excess" power from renewable fuels.[425] Finally, CECA would have authorized the DOE to sell renewable energy credits for an inflation-adjusted cost of 1.5¢ per kilowatt hour (kWh).[426]

In large part because it was not introduced until the Second Session of the 105th Congress, S. 2287 appeared to be dead on arri-

---

on state regulation of electric and gas utilities. Pub. L. No. 95-617, § 603, 92 Stat. at 3165 (codified at 16 U.S.C. § 2645). Section 604 amended the Surface Mining Control and Reclamation Act of 1977 to establish thirteen coal research laboratories. Pub. L. No. 95-617, § 604, 92 Stat. at 3166 (codified at 30 U.S.C. § 1316). Section 605 addressed the calculation of natural gas entitlements for gas utilities under curtailment plans. Pub. L. No. 95-617, § 605, 92 Stat. at 3167 (codified at 15 U.S.C. § 717x). Section 606 directed the FERC to implement a procedure to facilitate the conversion of facilities from the use of natural gas to the use of petroleum fuel oil. Pub. L. No. 95-617, § 606, 92 Stat. at 3167 (codified at 15 U.S.C. § 717y). Section 607 authorized the President to declare natural gas emergencies due to natural gas shortages. Pub. L. No. 95-617, § 607, 92 Stat. at 3171 (codified at 15 U.S.C. § 717z). Finally, Section 608 amended Section 7 of the Natural Gas Act. Pub. L. No. 95-617, § 608, 92 Stat. at 3173 (codified at 15 U.S.C. § 717f).

422. *See* S. 2287, § 302(a), 105th Cong. (1998). (to be codified at Pub. L. No. 95-617, § 611).

423. *Id.*

424. *Id.* (to be codified at Pub. L. No. 95-617, §§ 611(a)-(b)).

425. *Id.* (to be codified at Pub. L. No. 95-617, §§ 611(c)-(e)).

426. *Id.* (to be codified at Pub. L. No. 95-617, § 611(f)). The DOE would have deposited the funds collected through the sale of renewable energy credits into a Public Benefits Funds established under CECA. *Id. See generally* S. 2287, § 301, 105th Cong. (1998) (public benefits fund) (to be codified at Pub. L. No. 95-617, § 610).

val.[427] No hearings on the Administration bill were held.[428] By the Summer of 1998, the prospects in the House for enactment of H.R. 655 also appeared to be bleak.[429] In the end, no bill to deregulate and restructure electric utilities was enacted in the 105th Congress.

B. *106th Congress (1999-2000)*

Although the Administration proposal to restructure and deregulate electric utilities died in the 105th Congress, the bill was resurrected in the First Session of the 106th Congress.[430] CECA was introduced in the Republican-controlled House in May 1999 by Rep. Tom Bliley (R-VA),[431] Chairman of the House Committee on Energy and Commerce, and in the Republican-controlled Senate in May 1999 by Sen. Murkowski,[432] who again was Chairman of the Senate Committee on Energy and Natural Resources.

---

427. *White House Restructuring Bill Unlikely to Spur Congress to Act*, ELECTRIC UTIL. WK., July 6, 1998, at 1. "The release last week of the Clinton administration's long-awaited electric industry restructuring legislation was greeted with enthusiasm by proponents of industry restructuring, but it remains in doubt whether the bill will spur any meaningful action on Capitol Hill this year." *Id.*

428. *But see Draft White House Bill Offers Few Details, But May Prompt Hearing*, ELECTRIC UTIL. WK., May 25, 1998, at 3.

429. *House Republicans Push Electricity Bill Action, But Outlook Remains Dim*, ELECTRIC UTIL. WK., June 29, 1998, at 1. *But see Recent Legislative Activity Indicates Push Is Still On to Restructure Electric Utility Industry During This Congress*, FOSTER ELECTRIC REP., July 1, 1998, at 1.

430. *Administration's New Restructuring Measure Offers Few Major Changes From Last Year's Version*, FOSTER ELECTRIC REP., Apr. 21, 1999, at 1.

431. H.R. 1828, 106th Cong. (1999).

432. S. 1047, 106th Cong. (1999). *See generally* U.S. DEP'T. OF ENERGY, THE COMPREHENSIVE ELECTRICITY COMPETITION ACT: A COMPARISON OF MODEL RESULTS, SR/OIAF/99-04 (1999) [hereinafter CECA COMPARISON]. In a subsequent analysis, the DOE estimated that the implementation of competition in retail markets would reduce national electric power costs from 6.36¢ per kilowatt hour (kWh) to 5.51¢ per kWh—a reduction of .85¢ per kWh. *Id.* at viii.

Like the proposal in the 105th Congress, CECA would have, *inter alia*, provided for competition in retail electric power markets,[433] clarified the role of states in the regulation of retail electric transmission services,[434] reformed Section 210 of PURPA,[435] reformed PUHCA,[436] authorized the FERC to regulate a national electric reliability organization,[437] and authorized the Environmental Protection Agency (EPA) to establish a new program to regulate nitrogen oxide emissions.[438] In addition, the bill would have enacted certain consumer protections,[439] amended the Federal Trade Commission Act to prohibit unfair trade practices,[440] and imposed the Federal Power Act on the Tennessee Valley Authority (TVA), the Bonneville Power Administration (BPA), the Western Area Power Administration (WAPA) and the Southwestern Power Administration (SPA).[441]

Section 402 of CECA would have amended Title VI of PURPA to establish a federal RPS for companies engaged in retail electric power sales.[442] The minimum, however, for electric power generated from renewable fuels was increased. CECA would have required 7.5% of all the power sold from 2010 through 2015 by companies engaged in retail electric utilities to be from renewable fu-

---

433. H.R. 1828, §§ 101-103, 106th Cong. (1999); S. 1047, §§ 101-103, 106th Cong. (1999).
434. H.R. 1828, § 301, 106th Cong. (1999); S. 1047, § 301, 106th Cong. (1999).
435. H.R. 1828, § 404, 106th Cong. (1999); S. 1047, § 404, 106th Cong. (1999).
436. H.R. 1828, § 501, 106th Cong. (1999); S. 1047, § 501, 106th Cong. (1999).
437. H.R. 1828, § 601, 106th Cong. (1999); S. 1047, § 601, 106th Cong. (1999).
438. H.R. 1828, § 701, 106th Cong. (1999); S. 1047, § 701, 106th Cong. (1999).
439. H.R. 1828, §§ 201-206, 106th Cong. (1999); S. 1047, §§ 201-206, 106th Cong. (1999).
440. H.R. 1828, § 203, 106th Cong. (1999); S. 1047, § 203, 106th Cong. (1999).
441. H.R. 1828, §§ 801-816, 106th Cong. (1999); S. 1047, §§ 801-824, 106th Cong. (1999).
442. H.R. 1828, § 402(a), 106th Cong. (1999); S. 1047, § 402(a), 106th Cong. (1999).

els.[443] The DOE estimated that the RPS provision of CECA would result in a 35% increase in the generation of electric power from renewable resources by 2010.[444]

H.R. 1828 and S. 1047 were scrutinized in congressional hearings in the 106th Congress. In the Summer of 1999, the Energy and Power Subcommittee of the House Committee on Energy and Commerce held two days of hearings.[445] The hearings coincided with Subcommittee hearings on issues associated with increasing competition in wholesale and retail electric power markets.[446] In addition,

443. H.R. 1828, § 402(a), 106th Cong. (1999) (to be codified at Pub. L. No. 95-617, § 611(a)-(b)); S. 1047, § 402(a), 106th Cong. (1999) (to be codified at Pub. L. No. 95-617, § 611(a)-(b)). Again, the RPS obligation could be met through self-generation of "green" power, which would be rewarded by the Commission with renewable energy credits, or through the purchase of renewable energy credits from companies with "excess" power from renewable fuels. H.R. 1828, § 402(a), 106th Cong. (1999) (to be codified at Pub. L. No. 95-617, § 611(c)-(e)); S. 1047, § 402(a), 106th Cong. (1999) (to be codified at Pub. L. No. 95-617, § 611(c)-(e)). Finally, CECA would have authorized the DOE to sell renewable energy credits for an inflation-adjusted cost of 1.5¢ per kWh. H.R. 1828, § 402(a), 106th Cong. (1999) (to be codified at Pub. L. No. 95-617, § 611(f)); S. 1047, § 402(a), 106th Cong. (1999) (to be codified at Pub. L. No. 95-617, § 611(f)).

444. CECA COMPARISON, *supra* note 431, at ix-x.

445. *Electric Restructuring Legislation: Hearings Before the Subcomm. on Energy and Power of the House Comm. on Commerce*, 106th Cong. (1999) [hereinafter House CECA Hearings]. A June hearing addressed CECA. A July hearing addressed CECA, H.R. 687; H.R. 971, the Electric Power Consumer Rate Relief Act of 1999; H.R. 1138, the Ratepayer Protection Act (to repeal Section 210 of PURPA); H.R. 2050, the Electric Consumers' Power to Choose Act of 1999; and H.R. 2363, the Public Utility Holding Company Act of 1999 (to repeal PUHCA).

446. *Electric Restructuring Legislation: Hearings Before the Subcomm. on Energy and Power of the House Comm. on Energy and Commerce—Volume 1*, 106th Cong. (1999) (evolving federal and state roles, reliability and transmission in competitive electricity markets, and market power, mergers, and PUHCA). *Electric Restructuring Legislation: Hearings Before the Subcomm. on Energy*

the deregulation of wholesale electric power markets in California provided the Subcommittee with a practical example of competition in electric markets and the lessons to be learned therefrom.[447]

In the hearings on CECA, the DOE explained the need to address environmental concerns in such legislation, observing that "[r]etail competition has the potential to increase the amount of renewable energy generated because it will allow environmentally-conscious consumers to purchase 'green' energy packages from suppliers."[448] EEI, however, opposed the proposed RPS in H.R. 1828. While conceding that the use of renewable resources should be encouraged, EEI argued that a federal mandate was not appropriate,[449] and

---

and Power of the House Comm. on Energy and Commerce—Volume 2, 106th Cong. (1999) (the role of federal electric utilities, PURPA, stranded costs and the environment, consumer protection issues, and state and local issues). *Electric Restructuring Legislation: Hearings Before the Subcommittee on Energy and Power of the House Committee on Energy and Commerce—Volume 3*, 106th Cong. (1999) (innovation and the future, the role of the Tennessee Valley Authority). *See also PUHCA Repeal: Is the Time Now?: Hearings Before the Subcomm. on Finance and Hazardous Materials of the House Comm. on Energy and Commerce*, 106th Cong. (1999).

447. *Electric Utility Industry Restructuring: The California Market: Hearings Before the Subcomm. on Energy and Power of the House Comm. on Energy and Commerce*, 106th Cong. (2000).

448. House CECA Hearings, *supra* note 444, at 16 (statement of Hon. Bill Richardson, Sec'y, Dep't of Energy). "However, the inherent uncertainty of the transition to competition, the recognition of important environmental and energy diversification benefits from renewables, and the fact that existing [PURPA] requirements related to renewable energy are incompatible with competition suggests that Federal policy towards renewable energy should be revisited in the context of restructuring." *Id.* at 19.

449. *See id.* at 62 (statement of David K. Owens, Exec. V.P., EEI). "Encouraging use of renewable sources of energy is an appropriate policy goal; however, the Administration bill follows the wrong course to achieve that goal. H.R. 1828 would impose a renewable portfolio standard on sellers of electricity of 7.5 per-cent. A renewable portfolio standard is a hidden tax on all consumers. This mandate also sets an unrealistically high requirement and will force consumers to pay more for electricity." *Id.* at 73.

suggested instead the use of tax credits to promote the development of renewable fuels. The Electric Power Supply Association (EPSA), a trade association of independent electric power production companies, disagreed and suggested that "[e]specially during this transition [to competition], a public policy to support renewables through programs such as tax credits *or perhaps a modest [RPS]* is appropriate."[450] Finally, the National Association of State Consumer Advocates (NASCA) suggested that a federal RPS should not be applicable to existing renewable resources, only to the new ones.[451]

The Senate Committee on Energy and Natural Resources held two days of hearings on CECA and on several related bills in the Summer of 1999.[452] In April 2000, the Committee held an additional three days of hearings on CECA and on several related proposals.[453] In 1999, the DOE, EEI, EPSA, and NASUCA testified and reiterated most of the points they had raised in the House CECA hearings.[454]

---

450. *Id.* at 85 (statement of Steven J. Kean, Exec. V.P., Enron Corp., on behalf of EPSA) (emphasis added).

451. *See id.* at 119 (prepared statement of Fred Schmidt, Pres., NASCA).

452. *Electric Power Industry Competition Legislation: Hearings Before the Senate Comm. on Energy and Nat. Res.*, 106th Cong. (1999) [hereinafter 1999 Senate CECA Hearings]. The hearings addressed S. 161, the Power Marketing Administration Reform Act of 1999; S. 282, the Transition to Competition in the Electric Industry Act; S. 516, the Electric Utility Restructuring Empowerment and Competitiveness Act of 1999; S. 1047, CECA; S. 1273, the Federal Power Act Amendments of 1999; and S. 1284, the Electric Consumer Choice Act. *See generally Senate Side Now Declares Readiness to Launch Action on Restructuring*, ELECTRIC UTIL. WK., July 19, 1999, at 1.

453. *Electric Power Industry Competition Legislation: Hearings Before the Senate Comm. on Energy and Nat. Res.*, 106th Cong. (2000) [hereinafter 2000 Senate CECA Hearings]. The hearings addressed S. 282; S. 516; S. 1047; S. 1273; S. 1284; S. 1369, the Clean Energy Act of 1999; S. 2071, the Electric Reliability 2000 Act; and S. 2098, the Electric Power Market Competition and Reliability Act.

454. *See* 1999 Senate CECA Hearings, *supra* note 451, at 30 (statement of Hon. Bill Richardson, Sec'y, Dep't of Energy); *Id.* at 90, 94 (statement of John W. Rowe, Chairman and CEO, Unicom

In addition, the Governors' Public Power Alliance (GPPA), a nonpartisan organization that represents the interests of federal, municipal and cooperative electric utilities, appeared to argue that, in the event of adoption of a federal RPS, the states should determine the appropriate minima based on regional circumstances.[455] The GPPA also reminded the Committee that "one of the goals of restructuring is to reduce rates for all customers. The impact of a renewable portfolio standard should not nullify cost savings realized by electric customers."[456]

In April 2000, when the Senate Committee on Energy and Natural Resources held an additional three days of hearings on legislation to restructure and deregulate electric utilities, the National Conference of State Legislatures endorsed the RPS provisions contained in CECA as well as in S. 1369, the Clean Energy Act of 1999,[457] which had been introduced by Sen. James M. Jeffords (R-VT) in July 1999.[458] Although the American Public Power Association (APPA),

---

Corp., on behalf of EEI) ("The Administration bill is designed to achieve by Federal fiat what the market is not willing to produce. S. 1047 would impose a renewable portfolio standard on sellers of electricity of 7.5 percent. This mandate is not economically achievable, and even a superficial reading of energy policy history would counsel against statutory, structural subsidies for any fuel or technology."); *see also id.* at 95 (statement of EEI); *id.* at 122, 124 (statement of Billy Jack Gregg, Director, Consumer Advocate Div., Pub. Serv. Comm'n of West Virginia, on behalf of NASUCA) ("NASUCA believes a federal mandate on renewables is unnecessary. Instead, federal legislation should remove any barriers to state renewables programs."); *id.* at 127, 131-32 (statement of Steven J. Kean, Exec. V. P., Enron Corp., on behalf of EPSA) ("Congress must enable a unified market rather than an ineffective patchwork of state programs.").

455. *Id.* at 57 (statement of Hon. Mike Johanns, Governor, State of Nebraska, on behalf of GPPA).

456. *Id.* at 62.

457. S. 1369, § 7, 106th Cong. (1999).

458. *See* 2000 Senate CECA Hearings, *supra* note 452, at 91 (statement of Clifton Below, New Hampshire State Senate, on behalf of the Nat'l Conf. of State Legislatures). "NCSL believes that deregulation of electricity production should no[t] result in an increase in air pollution. Development of a federal renewable portfolio stan-

a trade association of federal and municipal electric utilities, declined to support a federal RPS mandate,[459] the association endorsed the general proposition that a bill to deregulate electric utilities should also address environmental concerns.[460] In comments submitted after the April hearings,[461] the group Public Citizen criticized S. 2098, the Electric Power Market Competition and Reliability Act,[462] because it failed to propose a federal RPS.

Back in the House, CECA was joined by two additional measures to require the introduction of competition in retail electric power markets. Introduced by Rep. Steve Largent (R-OK) in June 1999, and co-sponsored by Rep Edward J. Markey (D-MA), H.R. 2050, the Electric Consumers' Power to Choose Act of 1999,[463] also included

---

dard . . . could have significant impact on improving air quality and diversifying the nation's energy resources." *Id.* at 94.

459. *See id.* at 109 (statement of Gary Zimmerman, Exec. V.P., Mich. Municipal Electric Ass'n, on behalf of APPA). "While we commend the efforts of Senator Jeffords to concentrate on the environmental aspects of restructuring, APPA continues to oppose federal mandates, including renewable portfolio standards and fuel use mandates of any kind." *Id.* at 122.

460. "We do believe that federal restructuring legislation can promote clean energy and energy efficiency and result in a cleaner environment. This is one of several principles we and other industry stakeholders have endorsed." *Id.* at 120-21.

461. *See id.* at 262 (statement of Charles B. Higbley, Research Director, Public Citizen's Critical Mass Energy Project). Also in comments submitted after the hearings, the Canadian Electricity Association suggested that a federal RPS could be an impediment to "robust" international electric power markets." *Id.* at 257 (statement of Hans Konow, Pres. and CEO, Canadian Electricity Ass'n). "[A] narrowly defined renewable portfolio standard which has the effect of excluding conventional hydro and Canadian sources would be contrary to both mutually beneficial trade practices and existing treaty obligations under NAFTA." *Id.* at 258.

462. S. 2098, 106th Cong. (1999). Sen. Murkowski introduced this bill in February 2000. *Id.*

463. H.R. 2050, 106th Cong. (1999). The bill would have provided for competition in retail electric power markets. *Id.* § 101. Title II of H.R. 2050, the Public Utility Holding Company Act of 1999, would have reformed PUHCA. *Id.* § 202. Title III of the bill, the Ratepayer

an RPS proposal in the form of an amendment to Title II of PURPA.[464] The federal RPS would be applicable after 2005 to companies that sell retail electric power,[465] but would not become effective unless the DOE determined that less than 3% of all the power generated in the U.S. in 2004 was from renewable resources.[466]

Subject to this DOE determination, H.R. 2050 would have required 3% of all the power sold between 2005 and 2015 by companies that sell retail electric power to be from renewable fuels.[467] Consistent with similar bills, the RPS obligation could be met through self-generation of "green" power, which would be rewarded by the Commission with renewable energy credits, or through the purchase of renewable energy credits from companies with "excess" power from renewable fuels.[468] Finally, H.R. 2050 would have authorized the DOE to sell renewable energy credits for an inflation-adjusted cost of 1.5¢ per kilowatt hour (kWh).[469]

Protection Act of 1999, would have repealed Section 210 of PURPA. *Id.* § 303. Title IV of H.R. 2050 would have amended the Tennessee Valley Authority Act and imposed the Federal Power Act on the Bonneville Power Administration. *Id.* §§ 401-427.

464. *Id.* § 501(a) (to be codified at Pub. L. No. 95-617, § 215).

465. *Id.* (to be codified at Pub. L. No. 95-617, § 215(b)).

466. *Id.* (to be codified at Pub. L. No. 95-617, § 215(a)).

467. *Id.* (to be codified at Pub. L. No. 95-617, § 215(b)). The 3% minimum prompted Secretary of Energy Bill Richardson, in the July 1999 hearing on CECA and on related bills before the House Committee on Energy and Commerce, to suggested to Rep. Largent that the minimum be increased. "I would urge you, Congressman, to consider in your bill to raise the renewable portfolio from 3 to 7.5 [%]. That would be my only constructive suggestion." House CECA Hearings, *supra* note 445, at 36.

468. H.R. 2050, § 501(a), 106th Cong. (1999) (to be codified at Pub. L. No. 95-617, §§ 215(c)-(e)).

469. *Id.* (to be codified at Pub. L. No. 95-617, § 215(f)). "The Secretary shall deposit in a separate account the amount received from a sale under this subsection. Amounts in the separate account shall be available, without further appropriation, to the Secretary to be used for purposes of providing assistance for research and development of cleaner burning fuels and renewable energy." *Id.*

A second legislative proposal for competition in retail electric power markets joined CECA in September 1999, when Rep. Joe Barton (R-TX), Chairman of the Energy and Power Subcommittee of the House Committee on Energy and Commerce, introduced H.R. 2944, the Electricity Competition and Reliability Act.[470] The Barton bill contemplated a different approach to retail competition. In addition, the bill established a new milestone when it became the first bill in the course of congressional consideration of legislation to deregulate and restructure electric utilities to be reported out of a congressional subcommittee.

The Barton bill would have, *inter alia*, clarified the role of states in the introduction of competition in retail electric power markets,[471] authorized the FERC to regulate a national electric reliability organization,[472] enacted consumer protections,[473] reformed the process for FERC review and approval of mergers and acquisitions under the Federal Power Act,[474] repealed PUHCA,[475] repealed Section 210 of PURPA,[476] and imposed the Federal Power Act on the TVA, the BPA, the WAPA, the Southwestern Power Administration and the Southeastern Power Administration.[477]

With respect to retail competition, the Barton bill would not have required the imposition of competition in retail electric power markets. However, the bill would have required companies with distribution assets that are also engaged in retail electric power sales in competitive markets to make their distribution assets available to other companies engaged in retail sales for delivery of those sales.[478] This simple open access requirement, along with the statement in Section 101 on the role of states in retail competition, reflected congressional deference to states on the actual imposition of competition

470. H.R. 2944, 106th Cong. (1999).
471. *Id.* § 101.
472. *Id.* § 201.
473. *Id.* §§ 301-305.
474. *Id.* § 401.
475. *Id.* § 512.
476. *Id.* § 531.
477. *Id.* §§ 601-635.
478. *Id.* § 501.

in retail electric power markets. In part for this reason, the Barton bill appeared to champion states rights.[479]

In contrast to CECA and the Largent-Markey bill (H.R. 2050), however, the Barton bill contained no RPS provision. Section 701 of the bill would have extended for an additional ten years the renewable energy production incentive under Section 1212 of the Energy Policy Act of 1992.[480] Otherwise, the Barton bill was short on environmental provisions. For this reason, in hearings before the Energy and Power Subcommittee in October 1999,[481] the DOE urged the inclusion in the bill of an RPS provision.[482] Soon thereafter, the Subcommittee approved the Barton bill, with amendments but still without an RPS provision,[483] on a vote of 17-11.[484] Thereafter H.R. 2944, like CECA before it, died in committee.[486]

---

479. *See, e.g., Barton Sees Final Restructuring Bill As "State-Friendly" But Less So*, ELECTRIC UTIL. WK., Nov. 15, 1999, at 11.

480. H.R. 2944, § 701, 106th Cong. (1999). *See also id.* § 702 (net metering).

481. *The Electricity Competition and Reliability Act: Hearings Before the Subcomm. on Energy and Power of the House Comm. on Commerce*, 106th Cong. (1999).

482. *See id.* at 19, 23 (statement of T.J. Glauthier, Deputy Sec'y, U.S. Dep't of Energy). "The inclusion of a renewable portfolio standard would provide market-based support for the development and deployment of renewable energy technologies." *Id. But see id.* at 184, 190 (statement of David K. Owens, Exec. V.P., EEI). "We commend the Chairman for not including a mandatory renewable energy portfolio standard in H.R. 2944. A renewable portfolio standard is a hidden tax on all consumers that would force them to pay more for electricity." *Id.*

483. "To get the Clinton administration's approval of a bill next year, Barton admitted there has to be an environmental provision. But Congress will not approve a renewables portfolio standard that would require a set amount of generation to be from renewable sources." *Barton Sees Final Restructuring Bill As "State-Friendly" But Less So*, ELECTRIC UTIL. WK., Nov. 15, 1999, at 11.

484. *House Subcommittee Passage of Electric Utility Deregulation Bill Leads to Hoots and Howls, Sets Stage for Intense Debate Before the Commerce Committee Next Session*, FOSTER ELECTRIC REP., Nov. 3, 1999, at 1. "After several years of hearings involving hundreds of witnesses, the House Commerce subcommittee on energy

Although CECA and several related legislative proposals to restructure and deregulate electric utilities hit the ground running in the First Session of the 106th Congress, those proposals bascially ground to a halt in the Second Session, which coincided with an election year.[487] In the final analysis, neither President Clinton nor the 106th Congress could provide the nation with competition in retail electric power markets.

C. *Cheney Task Force*

The debate over competition in retail electric power markets continued into the Bush administration, which, within its first month in office, established the National Energy Policy Development Group, chaired by Vice President Dick Cheney (Cheney Task Force). The Cheney Task Force was tasked with producing a blueprint for a National Energy Policy.[488] In May 2001, four months after its formation, the Cheney Task Force released the National Energy Policy

---

and power last Wednesday finally voted out a measure to deregulate the electric utility industry." *Id.*

485. *See, e.g., Senate Negotiations on Compromise Restructuring Bill Break Down, While House Markup Is Rescheduled*, FOSTER ELECTRIC REP., June 21, 2000, at 1. "Supporters of comprehensive federal electric industry restructuring received a series of setbacks last week as bickering in both the House and the Senate left parties deeply divided on a several critical issues." *Id.*

486. *See, e.g., Senate Negotiations on Compromise Restructuring Bill Break Down, While House Markup Is Rescheduled*, FOSTER ELECTRIC REP., June 21, 2000, at 1. "Supporters of comprehensive federal electric industry restructuring received a series of setbacks last week as bickering in both the House and the Senate left parties deeply divided on a several critical issues." *Id.*

487. "Election years are notorious for producing little legislation of significance, and it is unclear whether this year will be any different." Eric Schmitt, *Capitol Hill Memo: Dueling Agendas Herald Fight for Control of Congress*, N.Y. TIMES, Jan. 6, 2000, at A19.

488. *See, e.g., Remarks Prior To a Meeting With the Energy Policy Development Group*, 37 WKLY. COMP. PRES. DOC. 236 (Jan. 29, 2001); *see also Remarks Following a Meeting With the National Energy Policy Development Group and an Exchange With Reporters*, 37 WEEKLY COMP. PRES. DOC. 469 (Mar. 23, 2001).

Report,[489] setting forth 105 recommendations for legislative and administrative reform.[490] The recommendations for legislative reform contributed in no small measure to the push to enact comprehensive national energy legislation.

The Cheney Task Force consisted of the Vice President; the Secretaries of the U.S. Departments of the State, Treasury, Interior, Agriculture, Commerce, Transportation, and Energy; the heads of the Federal Emergency Management Agency, the Environmental Protection Agency, and the Office of Management and Budget; and three assistants to the President. Cheney was authorized to invite additional government officials to participate in the development of a National Energy Policy.

The National Energy Policy Report estimates that, within twenty years, U.S. oil consumption will increase by 33%, natural gas consumption will increase by 50%, and electric power consumption will increase by 45%.[491] To meet the demand for electric power, the report states that the U.S. must construct between 1300 and 1900 new electric power plants.[492]

The National Energy Policy Report establishes five broad goals. "America must modernize conservation, modernize our energy infra-

---

489. NAT'L ENERGY POLICY DEV. GROUP, RELIABLE, AFFORDABLE, AND ENVIRONMENTALLY SOUND ENERGY FOR AMERICA'S FUTURE (2003) [hereinafter NAT'L ENERGY POLICY REP.]. *See generally* Joseph Kahn, *The Energy Plan: The Details, Excessive Regulation Is Blamed for Energy Woes*, N.Y. TIMES, May 18, 2001, at A15. "The Bush administration's national energy policy is a glossy, picture-filled and comprehensive look at nearly every energy issue facing the United States today, but buried in the text is single stark conclusion: Excessive regulation has produced the worst energy crisis in decades." *Id.*

490. *Remarks Announcing the Energy Plan in St. Paul, Minnesota*, 37 WEEKLY COMP. PRES. DOC. 757 (May 18, 2001); *President Bush Unveils Energy Policy Plan Drafted By Vice President's Task Force, Recommendations Include Transmission Siting Authority for FERC*, FOSTER ELECTRIC REP., May 23, 2001, at 1. *See also* Mike Allen & Eric Pianin, *Energy Proposal To Emphasize More Production, But Bush Plans to Stress Conservation When He Releases Plan This Week*, WASH. POST, May 13, 2001, at A1.

491. *See* NAT'L ENERGY POLICY REP., *supra* note 489, at x.

492. *See id.* at xi.

structure, increase energy supplies, accelerate the protection and improvement of the environment, and increase our nation's energy security."[493] With respect to energy supplies, the report explains that "[a] primary goal of the National Energy Policy is to add supply from diverse sources. This means domestic oil, gas, and coal. It also means hydropower and nuclear power. *And it means making greater use of non-hydro renewable sources now available*."[494]

To increase energy supplies, the National Energy Policy Report sets forth numerous recommendations. In particular, the Cheney Task Force recommends the enactment of legislation to expand alternative fuels tax credits to include methane gas emissions from landfills for electric power generation and to expand tax credits for wind and biomass fuels.[495] The National Energy Policy Report also recommends the expansion of tax credits to include biomass fuels from forest-related sources, agricultural sources, and certain urban sources.[496]

An entire chapter of the eight-chapter report is dedicated to the expanded use of renewable resources.[497] The Report observes that renewable resources presently account for just 9% of U.S. electric power production and that non-hydropower renewable resources account for just 2%. Though small, these numbers represent a 30% increase over the last decade in the amount of electric power from non-hydropower renewable resources.[498]

Non-hydropower renewable resources include biomass, geothermal, wind, and solar, resources that often are available on public lands.[499] Thus, the Report recommends, for example, that the U.S.

---

493. *See id*

494. *Id.* at xiii (emphasis added). *See, e.g., Nuclear Energy Industry Reclaims Spotlight*, N.Y. TIMES, May 20, 2001, at A22. "The nuclear energy industry is back in the spotlight, cited in the report of the National Energy Policy Development Group headed by Vice President Dick Cheney as one of the cornerstones of a broad, national effort to produce more power." *Id.*

495. NAT'L ENERGY POLICY REP., *supra* note 489, at xiv.

496. *See id.*

497. *See id.* at 6-1 to 6-18.

498. *See id.* at 6-1.

499. Biomass accounts for 76% of the electric power generated from non-hydropower renewable resources. *See id.* at 6-5. Geothermal accounts for 17% but in the past thirty years, the amount of elec-

Departments of Energy and Interior reassess various access limitations to federal lands that might restrict the further development of these resources.[500]

Finally, the National Energy Policy Report recognizes that "[p]erhaps the greatest barrier to growth of renewable energy is cost. Currently, the cost of renewable energy generation frequently exceeds the costs of conventional electricity generation."[501] The cost of hydroelectric power is 2-6¢ per kilowatt hour (kWh), but the cost of electric power from biomass or solar can be 20¢ per kWh.[502]

Although the Cheney Task Force generally endorses the expanded use of renewable resources, the National Energy Policy Report includes no proposal for a federal RPS.

Almost from the start, the Cheney Task Force proved to be controversial.[503] In particular, the apparent participation in the government task force of individuals from the electric, oil and gas industries has come under fire from Congress and from public interest organizations alleging bias towards those industries. This criticism precipitated several lawsuits to force the disclosure of information on the precise composition, activities, and operation of the Cheney Task Force.

Upon the release of the National Energy Policy Report, Rep. John D. Dingell (D-MI.) and Rep. Henry A. Waxman (D-CA) requested that the General Accounting Office (GAO), the investigative arm of Congress, examine the role of special interests and political campaign contributions in the development of the National Energy Policy. Several GAO requests for information from the Cheney Task

---

tric power from geothermal has increased almost sixfold. *Id.* Wind accounts for 6% of the electric power generated by non-hydropower renewable resources but the cost of this electric power has decreased 80% in the past twenty years. *Id.* Finally, solar accounts for 1%. *Id.* at 6-6.

500. *See id.* at 6-3.

501. *Id.* at 6-13 to 6-14.

502. *See id.* at 6-13.

503. *See, e.g.*, Mike Allen & Dana Milbank, *Cheney's Role Offers Strengths And Liabilities*, WASH. POST, May 17, 2001, at A1. "But Cheney's strong role is also potentially the report's weakness. He is about to undergo a blast of unwanted scrutiny as critics seize on his finances and oil industry ties in an effort to discredit the policy." *Id.*

Force, however, were rebuffed.[504] The GAO then took the unprecedented step of filing a lawsuit against the Cheney Task Force[505] in the U.S. District Court for the District of Columbia (D.C. District Court) in February 2002. The suit was dismissed in December 2002.[506]

The allegations of bias in the National Energy Policy Report also triggered lawsuits by Judicial Watch, the Sierra Club and the Natural Resources Defense Council (NRDC).[507] Judicial Watch filed a lawsuit in the D.C. District Court in July 2001 to enforce the requirements of the Freedom of Information Act (FOIA), the Administrative Procedures Act (APA), and the Federal Advisory Committee Act (FACA),[508] which, if the Cheney Task Force were a federal advisory committee, would require the disclosure of task force activities and operations. A similar lawsuit filed by the Sierra Club in the U.S. District Court for the Northern District of California in January

---

504. *See GAO Mulls Action to Get Information on Cheney Energy Task Force Process*, ELECTRIC UTIL. WK., July 9, 2001, at 3; Mike Allen, *Cheney Spurns GAO Request; Agency Seeks Information on Energy Task Force's Contacts*, WASH. POST, June 19, 2001, at A19.

505. *See GAO to Sue for Cheney Task Force Records; Other Suits Already Exist*, ELECTRIC UTIL. WK., Feb. 4, 2002, at 4; *GAO Sues Vice President Cheney for Access to Energy Policy Records*, FOSTER ELECTRIC REP., Feb. 27, 2002, at 7.

506. Walker v. Cheney, 230 F.Supp. 2d 51 (D.C.Cir. 2002); *see Federal Court Throws Out GAO Complaint Against Cheney Energy Task Force*, FOSTER ELECTRIC REP., Dec. 11, 2002, at 1. Because the Comptroller General of the U.S. lacked the "personal, concrete, and particularized injury" required for standing under Article III of the U.S. Constitution, the D.C. District Court dismissed the GAO complaint against the Vice President. The court observed, nonetheless, that the lawsuit "raises compelling statutory and constitutional questions concerning the authority of the Comptroller General, and hence Congress, to require the Vice President to produce information relating to the President's decision-making on national energy policy." 230 F.Supp. 2d at 52.

507. *See generally Courts Push White House on Release of Records From Energy Task Force*, ELECTRIC UTIL. WK., Mar. 4, 2002, at 2.

508. 5 U.S.C. app. § 2 (2004).

2002 was transferred to the D.C. District Court and consolidated with the Judicial Watch lawsuit.

In July 2002, the D.C. District Court dismissed the FACA claim and held that the Vice President could not be sued under the APA.[509] However, the other claims were permitted to proceed and the D.C. District Court, in several subsequent orders, mandated the production of documents. A motion for a stay of the lawsuit to permit an appeal of those subsequent orders was denied.[510] A motion for certification to permit an interlocutory appeal of the orders also was denied.[511] Finally, in July 2003, the U.S. Court of Appeals for the D.C. Circuit denied a writ of mandamus to reverse the orders of the D.C. District Court requiring the production of documents.[512] A final decision in the lawsuit is pending.[513] On April 27, 2004, the U.S. Supreme Court heard oral arguments in the government's appeal of the D.C. District Court's order to produce documents.[514] A decision is expected before July.[515]

The NRDC filed a FOIA request with the DOE for information on the Cheney Task Force in April 2001. When the FOIA request was

---

509. *See* Judicial Watch, Inc. v. Nat'l Energy Policy Dev. Group, 219 F.Supp. 2d 20 (D.D.C. 2002). The D.C. District Court concluded that FACA provided no private cause of action. *See* 219 F.Supp. 2d at 33-35 (citing Alexander v. Sandoval, 532 U.S. 275, 121 S. Ct. 1511, 149 L. Ed. 2d 517 (2001)).

510. Judicial Watch, Inc. v. Nat'l Energy Policy Dev. Group, 230 F. Supp. 2d 12 (D.D.C. 2002).

511. Judicial Watch, Inc. v. Nat'l Energy Policy Dev. Group, 233 F. Supp. 2d 16 (D.D.C. Nov. 26, 2002).

512. *In re* Cheney, 334 F.3d 1096 (D.C. Cir. 2003); *In re* Executive Office of the President, 215 F.3d 20 (D.C. Cir. 2000). The D.C. Circuit Court concluded that the "[p]etitioners. . .have failed to satisfy the heavy burden required to justify the extraordinary remedy of mandamus." 334 F.3d at 1098.

513. Judicial Watch, Inc. v. Nat'l Energy Policy Dev. Group, No. 01-1530 (D.D.C.).

514. Cheney v. U.S. District Court, docketed as 03-475. Technically, the Court heard arguments for and against upholding the Circuit Court's refusal to issue a writ of mandamus, which would have vacated the D.C. District Court's production order.

515. *Cheney Secrecy Case Goes to High Court,* N.Y. TIMES, Apr. 27, 2004, at XXX.

declined, the NRDC filed a lawsuit in December 2001 in the D.C. District Court, which granted the FOIA request in February 2002.[516]

D. *Collapse of Enron*

In addition to the National Energy Policy Report, the collapse of Enron Corporation in 2001 also contributed to the momentum behind the enactment of comprehensive national energy legislation. The fair-haired child of proponents for electric deregulation and competition in the last decade of the last millennium, Enron filed for bankruptcy on December 2, 2001,[517] the culmination of a financial scandal that has since been likened to the public utility holding company scandals of the Great Depression that precipitated the enactment of PUHCA.[518]

---

516. *See* Natural Res. Def. Council v. Dep't. of Energy, 191 F. Supp. 2d 41 (D.D.C. 2002).

517. *See, e.g.,* Richard A. Oppel & Andrew R. Sorkin, *Enron's Collapse: The Overview; Enron Corp. Files Largest U.S. Claim for Bankruptcy,* N.Y.TIMES, Dec. 3, 2001, at A1. "Enron, which became one of the world's dominant energy companies by reshaping the way natural gas and electricity are bought and sold, filed the largest corporate bankruptcy in American history yesterday and blamed the company that had presented itself as its rescuer." *Id.*; Peter Behr, *Ailing Enron Files for Chapter 11 Bankruptcy Protection,* WASH. POST, Dec. 3, 2001, at A7. "Enron Corp. yesterday filed the largest bankruptcy petition in U.S. history, saying it would seek to forestall payment on $ 31.2 billion in debt while it tries to reorganize its finances and revive its devastated energy trading business." *Id.*

518. *See In Enron's Fall, an Echo Of the 1930s,* WASH. POST, July 30, 2003, at E2. "The electric power industry, wracked by losses and scandal. Shareholders' investments wiped out. The industry's biggest figure forced to resign in disgrace, pursued by prosecutors. To history buffs, the headlines from the collapse of Kenneth L. Lay's Enron Corp. in 2001 are uncannily familiar. It has happened before. The executive was Samuel Insull; the company, Commonwealth Edison in Chicago, built by Insull into the Midwest's dominant utility; and the scandal was the collapse of utility holding companies in the 1930s Depression. The downfall of Insull would scarcely merit a historical footnote today, were it not for the law

The collapse of Enron proved to be of considerable interest to the House Committee on Energy and Commerce, which held a series of hearings on its implications not just for electric and gas utilities[519] and accounting firms,[520] but for corporate America in general.[521] The hearings raised the question of whether the collapse of Enron signaled the failure of deregulation and competition in the electric

---

Congress passed in 1935 to effectively outlaw the kinds of corporate empires Insull and his peers created in the industry's formative years. That law, the Public Utility Holding Company Act, a milestone of President Franklin D. Roosevelt's New Deal, still stands." *Id.*

519. *See The Effect of the Bankruptcy of Enron on the Functioning of Energy Markets: Hearing Before the Subcomm. on Energy and Air Quality of the House Comm. on Energy and Commerce*, 107th Cong. (2002) [hereinafter House Enron Hearing].

520. *See Destruction of Enron-Related Documents By Anderson Personnel: Hearing Before the Subcomm. on Oversight and Investigations of the House Comm. on Energy and Commerce*, 107th Cong. (2002); *Lessons Learned From Enron's Collapse: Hearing Before the House Comm. on Energy and Commerce*, 107th Cong. (2002); *Are Current Financial Accounting Standards Protecting Investors?: Hearing Before the Subcomm. on Commerce, Trade and Consumer Protection of the House Comm. on Energy and Commerce*, 107th Cong. (2002).

521. *The Financial Collapse of Enron—Part 1: Hearing Before the Subcomm. on Oversight and Investigations of the House Comm. on Energy and Commerce*, 107th Cong. (2002); *The Financial Collapse of Enron—Part 2: Hearing Before the Subcomm. on Oversight and Investigations of the House Comm. on Energy and Commerce*, 107th Cong. (2002); *The Financial Collapse of Enron—Part 3: Hearing Before the Subcomm. on Oversight and Investigations of the House Comm. on Energy and Commerce*, 107th Cong. (2002); *The Financial Collapse of Enron—Part 4: Hearing Before the Subcomm. on Oversight and Investigations of the House Comm. on Energy and Commerce*, 107th Cong. (2002); *see also Enron Corporation's Collapse: Hearing Before the Senate Comm. on Energy and Natural Res.*, 107th Cong. (2002).

power industry.[522] Most witnesses before the committee, however, seemed unwilling to make this link.[523]

E. *California Energy Crisis*

In combination with the Cheney Task Force and the collapse of Enron, the California energy crisis was a third event that appeared to create an imperative for enactment of comprehensive national energy legislation. The crisis began in 2000 but reached a crescendo in June of 2001, when, in the midst of rolling blackouts, the FERC intervened and imposed prospective price ceilings in wholesale electric power markets operated by the California Independent System Operator Corporation (ISO) and the California Power Exchange (PX).[524] In July, the FERC ordered refunds of "unjust and unreasonable" charges for electric power purchased in the ISO and PX mar-

522. *See, e.g.,* House Enron Hearing, *supra* note 518, at 24 (statement of Hon. George Radanovich, a Rep. in Cong. From the State of Calif.). "As a Californian, I am very concerned about the failure of restructuring in my state, and I look forward to hearing testimony on the irregularities at Enron and if they played a significant role in the price spikes and supply disruptions my state experienced last year." *Id.*; *id.* at 25 (statement of Hon. Bill Luther, a Rep. in Cong. From the State of Minn.). "It is a very timely issue and something that should be explored as this committee and FERC continue to consider various proposals that move us further toward restructured markets" *Id.*

523. *See, e.g.,* House Enron Hearing, *supra* note 518, at 33 (statement of Patrick H. Wood III, Chairman, Fed. Energy Regulatory Comm'n). "I disagree with those who claim that the Enron collapse sounds the death knell for competition in energy markets or justifies nationwide reimposition of traditional cost-based regulation of electricity." *Id.*; *but see id.* at 131 (statement of Gerald A. Norlander, Executive Dir., Pub. Util. Law Project of New York, Inc.). "After Enron, the lesson is that restructuring, while it may be beneficial to some industry stakeholders, does not appear to be a value proposition for the ordinary consumer." *Id.*

524. *See* San Diego Gas & Elec. Co., 95 F.E.R.C. ¶ 61,418 (June 19, 2001).

kets between October 2000 and June 2001.[525] In December 2002, a FERC administrative law judge (ALJ), after months of hearings, proposed a refund obligation of $1.8 billion.[526] The commission agreed with and adopted the proposal.[527]

The California energy crisis also prompted several FERC investigations into allegations of manipulation of the ISO and PX markets and of other markets in the western U.S.[528] Upon completion of the investigations, the FERC issued in June 2003 an order to show cause to disgorge "unjust" profits from forty-three companies that had engaged in alleged "gaming" or "anomalous market behavior" in violation of ISO and PX tariffs.[529] Most of the companies have settled the allegations with the FERC and have agreed to refund "unjust" profits.

Although the FERC ordered refunds of "unjust and unreasonable" charges for electric power purchased in the ISO and PX markets between October 2000 and June 2001, in related proceedings, the FERC refused to require refunds of charges for electric power purchased in spot markets throughout the Pacific Northwest between December 2000 and June 2001.[530] After weeks of hearings, the

---

525. San Diego Gas & Elec. Co., 96 F.E.R.C. ¶ 61,120 (July 25, 2001).

526. *See* San Diego Gas & Elec. Co., 101 F.E.R.C. ¶ 63,026 (Dec. 12, 2002).

527. *See* San Diego Gas & Elec. Co., 102 F.E.R.C. ¶ 61,317 (Mar. 26, 2003), *order on reh'g*, 105 F.E.R.C. ¶ 61,066 (2002), *appeal docketed*, Williams Power Co., No. 03-1377 (D.C. Cir. filed Oct. 24, 2003).

528. *See, e.g.*, FED. ENERGY REGULATORY COMM'N, FINAL REPORT ON PRICE MANIPULATION IN WESTERN MARKETS (2003); FED. ENERGY REGULATORY COMM'N, INITIAL REPORT ON COMPANY-SPECIFIC SEPARATE PROCEEDINGS AND GENERIC REEVALUATIONS; PUBLISHED NATURAL GAS PRICE DATA; AND ENRON TRADING STRATEGIES: FACT-FINDING INVESTIGATION OF POTENTIAL MANIPULATION OF ELECTRIC AND NATURAL GAS PRICES (2002); *see also Energy Market Manipulation: Hearing Before the Senate Comm. on Energy and Natural Res.*, 107th Cong. (2001).

529. Am. Elec. Power Serv. Corp., 103 F.E.R.C. ¶ 61,345 (June 25, 2003).

. [530] Puget Sound Energy, Inc., 96 F.E.R.C. ¶ 63,044 (Sept. 24, 2001) (recommendations and proposed findings of fact). "[T]he par-

FERC declined to invalidate long-term electric power sales contracts concluded by Nevada Power Company and Sierra Pacific Power Company with a dozen companies engaged in wholesale transactions.[531]

Congress also investigated the California energy crisis,[532] its causes and consequences, and the extent to which the crisis might have been the result of the deregulation of electric utilities in California.[533] Like the collapse of Enron, the California energy crisis

---

ties have failed to show that market-based prices charged in the PNW during the potential refund period were unjust and unreasonable." *Id.* *See also* Puget Sound Energy, Inc. 103 F.E.R.C. ¶ 61,348 (June 25, 2003) (order granting reh'g, denying request to withdraw complaint and terminating proceeding), *order on reh'g*, 105 F.E.R.C. ¶ 61,183 (Nov. 10, 2003).

531. *See* Nevada Power Co., 101 F.E.R.C. ¶ 63,031 (Dec. 19, 2002) (initial decision). "It is further concluded that under the public interest standard, Complainants failed to prove that the Cal ISO and PX spot markets adversely affected the long-term bilateral markets. As a result, it is concluded that the contracts at issue in this case should not be modified. Therefore, it is concluded that the complaints should be dismissed." *Id.* *See also* Nev. Power Co., 103 F.E.R.C. ¶ 61,353 (June 26, 2003) (order on initial decision, reh'g requests, and motions), *order on reh'g*, 105 F.E.R.C. ¶ 61,185 (Nov. 10, 2003).

532. *Electricity Markets: California: Hearings Before the Subcomm. on Energy and Air Quality of the House Comm. on Energy and Commerce*, 107th Cong. (2001); *Electricity Markets: Lessons Learned From California: Hearings Before the Subcomm. on Energy and Air Quality of the House Comm. on Energy and Commerce*, 107th Cong. (2001); *Congressional Perspectives on Electricity Markets in California and the West and National Energy Policy: Hearings Before the Subcomm. on Energy and Air Quality of the House Comm. on Energy and Commerce*, 107th Cong. (2001); *California's Electricity Crisis: Hearing Before the Senate Comm. on Energy and Natural Res.*, 107th Cong. (2001); *Wholesale Electricity Prices in California and the Western United States: Hearing Before the Senate Comm. on Energy and Natural Res.*, 107th Cong. (2001).

533. *See generally* Peter Navarro & Michael Shames, *Electricity Deregulation: Lessons Learned From California*, 24 ENERGY L.J. 33 (2003); Nicholas W. Fels and Frank R. Lindh, *Lessons From the*

called into question the wisdom of electric deregulation and competition.[534] The crisis also prompted the introduction of federal legislation intended to provide relief from spiraling prices for electric power in California.[535]

F. *107th Congress (2001-2002)*

The collapse of Enron, for years the poster child for electric deregulation and competition, and the California energy crisis, which numerous critics attributed to electric deregulation in California, appeared to give pause to congressional proponents of competition in retail electricity markets. However, those two debacles, along with the controversial National Energy Policy Report, nonetheless combined to set the political stage for the consideration in the 107th Congress of comprehensive national energy legislation.

California "Apocalypse:" Jurisdiction Over Electric Utilities, 22 ENERGY L.J. 1 (2001); Michael A. Yuffee, *California's Electricity Crisis: How Best to Respond to the "Perfect Storm,"* 22 ENERGY L.J. 65 (2001).

534. *But see* CITIZENS FOR PENN.'S FUTURE, ELECTRICITY COMPETITION: THE STORY BEHIND THE HEADLINES, A 50-STATE REPORT (2002); *Study Rebuts Restructuring Criticisms, Shows Rates Have Declined in Most of U.S.*, ELECTRIC UTIL. WK., Sept. 9, 2002, at 12. "While the California disaster has drawn most of the attention, wholesale and retail restructuring have worked in most of the country, bringing lower rates and other benefits, such as renewable energy, according to Citizens for Pennsylvania's Future." *Id.*

535. S. 26, 107th Cong. (2001) (to impose interim price ceilings on wholesale electric power sales); California Electricity Consumers Relief Act of 2001, S. 80, 107th Cong. (2001); S. 287, 107th Cong., 1st Sess. (2001) (to impose cost-of-service based rates on wholesale electric power sales); *Electricity Rates: Hearing Before the Senate Comm. on Energy and Natural Res.*, 107th Cong. (2001) (S. 26, S. 80, and S. 287); H.R. 238, 107th Cong. (2001) (to impose interim price ceilings on wholesale electric power sales); California Electricity Consumers Relief Act of 2001, H.R. 268, 107th Cong. (2001); Electricity Emergency Act of 2001, H.R. 1647, 107th Cong. (2001); *The Electricity Emergency Act: Hearings Before the Subcomm. on Energy and Air Quality of the House Comm. on Energy and Commerce*, 107th Cong. (2001).

In the Republican-controlled House, the Energy and Air Quality Subcommittee of the Committee on Energy and Commerce held a series of hearings throughout 2001 on National Energy Policy,[536] on the National Energy Policy Report,[537] and on electric power issues in particular.[538] The extensive hearings established a foundation for the subsequent introduction of comprehensive legislation.

---

536. *National Energy Policy: Hearings Before the Subcomm. of Energy and Air Quality of the House Comm. on Energy and Commerce*, 107th Cong. (2001); *National Energy Policy: Coal: Hearings Before the Subcomm. of Energy and Air Quality of the House Comm. on Energy and Commerce*, 107th Cong. (2001); *National Energy Policy: Nuclear Energy: Hearings Before the Subcomm. of Energy and Air Quality of the House Comm. on Energy and Commerce*, 107th Cong. (2001); *National Energy Policy: Crude Oil and Refined Petroleum Products: Hearings Before the Subcomm. of Energy and Air Quality of the House Comm. on Energy and Commerce*, 107th Cong. (2001); *National Energy Policy: Conservation and Energy Efficiency: Hearings Before the Subcomm. of Energy and Air Quality of the House Comm. on Energy and Commerce*, 107th Cong. (2001).

537. *National Energy Policy Report of the National Energy Policy Development Group: Hearings Before the Subcomm. of Energy and Air Quality of the House Comm. on Energy and Commerce*, 107th Cong. (2001); *see also Message to the Congress Transmitting a Report of the National Energy Policy Development Group*, 37 WEEKLY COMP. PRES. DOC. 988 (June 28, 2001).

538. *National Electricity Policy: Barriers to Competitive Generation: Hearings Before the Subcomm. of Energy and Air Quality of the House Comm. on Energy and Commerce*, 107th Cong. (2001); *National Electricity Policy: Federal Government Perspectives: Hearings Before the Subcomm. of Energy and Air Quality of the House Comm. on Energy and Commerce*, 107th Cong. (2001); *Electric Transmission Policy: Regional Transmission Organizations, Open Access, and Federal Jurisdiction: Hearings Before the Subcomm. of Energy and Air Quality of the House Comm. on Energy and Commerce*, 107th Cong. (2001); *see also Hydroelectric Relicensing and Nuclear Energy: Hearings Before the Subcomm. on Energy and Air Quality of the House Comm. on Energy and Commerce*, 107th Cong. (2001).

In the Republican-controlled Senate, the Committee on Energy and Natural Resources similarly held a series of hearings throughout 2001 on U.S. energy trends,[539] national energy issues,[540] and various related topics.[541] The hearings provided a predicate for energy legislation that could be introduced, marked up in committee, and approved in committee without the need for additional hearings on the legislative proposals *per se.*

After extensive hearings in the House, Rep. W.J. "Billy" Tauzin (R-LA), Chairman of the House Committee on Energy and Commerce, introduced the Securing America's Future Energy Act of 2001 (SAFE) in late July 2001.[542] The 500-page omnibus bill consisted of several separate legislative proposals.[543] In significant part,

---

539. *U.S. Energy Trends (Part 1): Hearing Before the Senate Comm. on Energy and Natural Res.*, 107th Cong. (2001); *U.S. Energy Trends (Part 2): Hearing Before the Senate Comm. on Energy and Natural Res.*, 107th Cong. (2001).

540. *National Energy Issues (Part 1): Hearing Before the Senate Comm. on Energy and Natural Res.*, 107th Cong. (2001); *National Energy Issues (Part 2): Hearing Before the Senate Comm. on Energy and Natural Res.*, 107th Cong. (2001); *National Energy Issues (Part 3): Hearing Before the Senate Comm. on Energy and Natural Res.*, 107th Cong. (2001).

541. *Nuclear Power Industry: Hearing Before the Senate Comm. on Energy and Natural Res.*, 107th Cong. (2001).

542. H.R. 4, 107th Cong. (2001).

543. H.R. 4 consisted of the Energy Advancement and Conservation Act of 2001 (Division A), the Comprehensive Energy Research and Technology Act of 2001 (Division B), the Energy Tax Policy Act of 2001 (Division C), the Clean Coal Power Initiative Act of 2001 (Division E), and the Energy Security Act (Division F). *Id.* The Energy Advancement and Conservation Act included provisions on energy conservation (Title I), automobile fuel economy standards (Title II), nuclear power (Title III), hydroelectric power (Title IV), motor vehicle fuels (Title V), renewable fuels (Title VI), and natural gas pipelines (Title VII). *Id. See also* Energy Advancement and Conservation Act of 2001, H.R. 2587, 107th Cong. (2001); H.R. REP. NO. 107-162 (2001) (H.R. 2587). The Energy Security Act included provisions on general protections for energy supplies (Title I), oil and natural gas development (Title II), geothermal power (Title III), hydroelectric power (Title IV), Arctic energy supplies (Title

the bill would have (i) reauthorized federal energy conservation programs,[544] (ii) established goals for energy research, development, and commercialization,[545] (iii) amended the Code with respect to energy conservation credits and deductions,[546] (iv) established a program of research, development, and commercialization of clean coal technologies,[547] and (v) authorized a review of renewable resources on federal lands.[548] SAFE also would have authorized oil and gas exploration on the Arctic coastal plain. [549] In contrast to CECA, however, SAFE included no provisions for competition in retail electric power markets, for the repeal of Section 210 of PURPA, for the repeal of PUHCA, or for a federal RPS.[550]

Within one week, in August 2001, the House approved H.R. 4, with amendments, on a vote of 240-189.[551] The amended version of SAFE still contained no electric utilities reform provisions or an RPS.[552]

V), energy conservation by the U.S. Department of the Interior (Title VI), and coal (Title VII). *Id.*

544. *Id.* § 101.

545. *Id.* §§ 2001-2616.

546. *Id.* §§ 3001-3310.

547. *Id.* §§ 5001-5007.

548. *Id.* § 6102.

549. *Id.* §§ 6501-6512 (Arctic Coastal Plain Domestic Energy Security Act of 2001).

550. *See also* Electric Supply and Transmission Act, H.R. 3406, 107th Cong. (2001); *The Electric Supply and Transmission Act of 2001: Hearings Before the Subcomm. on Energy and Air Quality of the House Comm. on Energy and Commerce*, 107th Cong. (2001). H.R. 3406 included provisions on transmission operation and regional transmission organizations (Title II), transmission reliability standards (Title III), and transmission infrastructure and sustainable transmission networks (Title IV). *See, e.g., Electric Transmission Infrastructure and Investment Needs: Hearing Before the Senate Comm. on Energy and Natural Res.*, 107th Cong. (2001); *Electricity Infrastructure: Hearing Before the Senate Comm. on Energy and Natural Res.*, 107th Cong. (2001).

. [551] 147 CONG. REC. H5176 (Aug. 1, 2001).

552. *See House Passes Comprehensive Bill to Promote Energy Supply, Conservation, Efficiency*, FOSTER ELECTRIC REP., Aug. 15, 2001, at 3. "There are no electric restructuring, transmission siting

In the Senate, the National Laboratories Partnership Improvement Act of 2001,[553] introduced in March 2001 by Sen. Jeff Bingaman (D-NM), senior Democrat on the Senate Committee on Energy and Natural Resources, became the principal vehicle for comprehensive national energy legislation.[554] S. 517 was quite modest in scope. The bill would have created a Technology Infrastructure Pilot Program to improve scientific and technical collaboration between the national laboratories operated by the DOE and U.S. universities.[555] No hearing was held before the bill reached the Senate floor in February 2002.[556] Over a two-month period, S. 517 attracted almost 400 amendments.[557] Sen. Thomas A. Daschle, the senior Democrat in the Senate, along with Sen. Bingaman, introduced an amendment that transformed the modest National Laboratories Partnership Improvement Act of 2001 into the omnibus Energy Policy Act of 2002.[558]

---

authority or other electric policy provisions in the bill. However, it provides for numerous studies to examine such questions" *Id.*

553. S. 517, 107th Cong. (2001). *See also* National Laboratories Partnership Improvement Act of 2001, S. 259, 107th Cong. (2001).

554. *See also* Comprehensive and Balanced Energy Policy Act of 2001, S. 597, 107th Cong. (2001). The comprehensive bill included provisions on national energy planning and coordination (Division A), reliable and diverse electric power generation and transmission (Division B), domestic oil and natural gas production and transportation (Division C), diversification of energy demand (Division D), and research and development (Division E). *Id. See, e.g., Electricity and Gas Rates: Hearing Before the Senate Comm. on Energy and Natural Res.*, 107th Cong. (2001); *Climate Change and Balanced Energy Policy Act: Hearing Before the Senate Comm. on Energy and Natural Res.*, 107th Cong. (2001).

555. *See, e.g.*, S. REP. NO. 107-30 (2001) (S. 517).

556. 148 CONG. REC. S884 (daily ed. Feb. 15, 2002).

557. *See, e.g.*, S. Amendment No. 2917, 148 CONG. REC. S909-969 (daily ed. Feb. 15, 2002); S. Amendment No. 3380, 148 CONG. REC. S3450-52 (daily ed. Apr. 25, 2002).

558. S. Amendment No. 2917, an amendment in the nature of a substitute, replaced the language of the National Laboratories Partnership Improvement Act of 2001 with the language of the Energy Policy Act of 2002, a 500-page omnibus bill. *See generally* 148 CONG. REC. S909-969 (daily ed. Feb. 15, 2002) (text of bill). The

In contrast to SAFE, the Energy Policy Act of 2002 resembled CECA with respect to electric utilities reform. Although the bill contained no federal mandate for the introduction of competition in retail electric power markets, the legislation would have reformed the Federal Power Act to amend the process for FERC review and approval of mergers and acquisitions, authorized the FERC to establish national electric reliability standards,[559] reformed PUHCA,[560] reformed PURPA,[561] enacted consumer protections, and authorized the Federal Trade Commission Act to prohibit unfair trade practices.[562]

In addition to electric utilities reform, the Energy Policy Act of 2002 would have (i) encouraged the production of oil and natural gas,[563] (ii) enacted the Alaska Natural Gas Pipeline Act of 2002 to facilitate the construction of such a pipeline,[564] (iii) revised automobile fuel economy standards, increased the use of alternative fuels by federal government automobiles, and enacted the Federal Reformulated Fuels Act of 2002 to fund the environmental remediation of contamination from methyl tertiary butyl ether (MTBE), a gasoline additive,[565] and (iv) increased funds under the Low-Income Home Energy Assistance Act of 1981 and reauthorized federal energy conservation programs.[566] In apparent deference to the Kyoto Protocol, the Energy Policy Act of 2002 would have enacted the Climate Change Strategy and Technology Innovation Act of 2002, establishing a National Office of Climate Change Response that would de-

---

Energy Policy Act of 2002 included provisions on electric power generation and transmission (Division A), oil and natural gas production (Division B), diversification of energy demand (Division C), climate change (Division D), research and development (Division E), technologies assessment and studies (Division F), and energy infrastructure (Division G). S. Amendment No. 2917 was approved, with amendments, on April 25, 2002. 148 CONG. REC. S3417 (daily ed. Apr. 25, 2002).

559. S. 517, §§ 201-210, 107th Cong. (2002).

560. *Id.* §§ 221-238.

561. *Id.* §§ 241-245.

562. *See id.* §§ 251-258.

563. *See id.* §§ 601-608.

564. *See id.* §§ 701-722.

565. *See id.* §§ 801-833.

566. *See id.* §§ 901-936.

velop a U.S. Climate Change Response Strategy.[567] The bill also would have enacted the Energy Science and Technology Enhancement Act of 2002 to establish priorities and goals for energy research and development.[568]

Finally, Section 265 of the bill would have amended Title VI of PURPA to establish a federal RPS applicable to companies that sell retail electric power.[569] The bill would have required that 2.5% of all the power sold in 2005 by companies that sell retail electric power be from renewable fuels.[571] The RPS obligation could be met through self-generation of "green" power, which would be rewarded by the Commission with renewable energy credits, or through purchases or trades of renewable energy credits from companies with

567. *See id.* §§ 1011-1020.

568. *See id.* §§ 1201-1505.

569. *Id.* § 265. *See generally* S. Amend. No. 3016, 148 CONG. REC. S1943-44 (daily ed. Mar. 14, 2002). S. Amendment No. 3016, introduced by Sen. Bingaman on March 14, amended S. Amendment No. 2917 to include an RPS in the Energy Policy Act of 2002. S. Amend. No. 3016 was approved on March 21. *Id.* at S2234 (daily ed. Mar. 21, 2002). *But see* S. Amend. No. 3057, 148 CONG. REC. S2297 (daily ed. Mar. 21, 2002). "Upon certification by the Governor of a State to the Secretary of Energy that the application of the Federal [RPS] would adversely affect consumers in such state, the requirements of [the RPS] shall not apply to retail electric sellers in such State." *Id.* The amendment was rejected on a vote of 37-58. *Id.* at S2233; *Senate's Electricity Package Faces What May Be Serious Repeal Efforts*, ELECTRIC. UTIL. WK., Mar. 25, 2002, at 1 ("Democratic senators succeeded in turning back challenges to their renewable energy mandates while other electricity provisions remained in the background, to be taken up when Congress returns from its spring recess, which ends April 5.").

570. S. 517, § 265, 107th Cong. (2002) (to be codified at Pub. L. No. 95-617, § 606).

571. *See id.* (to be codified at Pub. L. No. 95-617, §§ 611(a)-(b)). "For each calendar year from 2006 through 2020, the required annual percentage of the retail electric supplier's base amount shall be .5 percent greater than the required annual percentage for the calendar year immediately preceding." *Id.* (to be codified at Pub. L. No. 95-617, § 611(b)(3)).

"excess" power from renewable fuels.[572] In contrast to CECA, Section 265 would not have authorized the DOE to sell renewable energy credits.

In late April 2002, after six weeks of contentious floor debate,[573] the Senate replaced the language of H.R. 4, which the House had referred to the Senate, with the language of S. 517, the Energy Policy Act of 2002, and, on a vote of 88-11, approved H.R. 4.[574] Thus the House version of H.R. 4, SAFE, differed in fundamental respects from the Senate version of H.R. 4, the Energy Policy Act of 2002.[575] In particular, SAFE included no provisions on electric utilities reform. Although the Energy Policy Act of 2002 included no federal mandate for competition in retail electric power markets, the bill would have reformed the Federal Power Act, PUHCA and

572. *Id.* (to be codified at Pub. L. No. 95-617, §§ 611(c)-(e)).

573. *See, e.g.*, *Senate Set for Some Key Electricity Decisions; 'Strike' Effort Threatens*, ELECTRIC UTIL. WK., Apr. 8, 2002, at 1; *Senate Bill Facing New Amendments, Utilities Look Ahead to Conference*, ELECTRIC UTIL. WK., Apr. 22, 2002, at 1.

574. 148 CONG. REC. S3417-18 (daily ed. Apr. 25, 2002). *Senate Bill Passes, But Takes Away Utilities Long-Sought PURPA Relief*, ELECTRIC UTIL. WK., Apr. 29, 2002, at 1[hereinafter *Senate Bill Passes*]. "The first significant federal energy legislation in 10 years is in its final steps toward enactment after the U.S. Senate last week approved its version of a bill and sent it to a conference with the House, which voted out its own measure last year." *Id.*

575. *See generally* 148 CONG. REC. S3688-788 (daily ed. May 1, 2002) (text of bill).

PURPA.[576] In addition, the Senate bill included an RPS.[577] Thus, a House-Senate conference committee was convened.[578]

The conference committee, which met through the Summer and Fall of 2002, proved unable to reconcile several significant differences between SAFE and the Energy Policy Act of 2002.[579] For example, the committee could not agree on electric utilities reform and oil and gas exploration on the Arctic coastal plain,[580] nor on a federal

---

576. *Senate Bill Passes, supra* note 574, at 1. "While the Senate measure . . . takes action in the electricity sector, it does not make the kind of fundamental structural changes -- aside from PUHCA repeal -- that had been talked about on Capitol Hill for several years. It does not call for retail competition, for example, which was the biggest item under debate until it became clear in the last couple of years that such a sweeping effort was too hard to deal with." *Id.*

577. S. 517, § 265, 107th Cong. (2002) (to be codified at Pub. L. No. 95-617, § 606).

578. 148 CONG. REC. S3418 (daily ed. Apr. 25, 2002); 148 CONG. REC. H3462-71 (daily ed. June 12, 2002) (appointment of conferees on H.R. 4).

579. *Starting Energy Bill Talks, Congress Faces Major Questions on Electricity*, ELECTRIC UTIL. WK., July 1, 2002, at 3. "[Rep.] Tauzin said he and [Sen.] Bingaman had identified eight major provisions that will require input from lawmakers themselves: allowing oil and gas drilling in Alaska's Arctic National Wildlife Refuge; addressing climate change; raising Corporate Average Fuel Economy standards for automobiles; restructuring the electricity industry; mandating increased use of ethanol in gasoline; boosting pipeline safety; requiring a percentage of electricity to be generated from renewable resources; and providing tax incentives for various forms of energy production and conservation." *Id.*

580. "Reps. Henry Waxman (D-Calif.) and Peter DeFazio (D-Ore.) strongly criticized electricity provisions proposed by both House and Senate conferees. In the wake of the California energy crisis and the collapse of Enron Corp., 'we now know that electricity markets need vigorous government supervision,' Waxman said." *Id. See also Struggle Over Electricity Items Begins in Energy Bill Conference*, ELECTRIC UTIL. WK., Sept. 16, 2002, at 1; *Congress Getting Down to the Wire on Electricity Issues in Energy Bill*, ELECTRIC UTIL. WK., Sept. 30, 2002, at 4. "One of the most significant hurdles to the bill, opening the Arctic National Wildlife Refuge to oil explora-

RPS.[581] Ultimately, the conference committee was unable to fashion a compromise bill on which both congressional houses could agree before the 107th Congress adjourned for mid-term elections in late October 2002.[582] The elections resulted in Republican gains in the

---

tion, is expected to be addressed Tuesday of this week. The Democrat-led Senate has steadfastly opposed drilling in ANWR while it was the hallmark of the GOP-controlled House bill." *Id.*

581. "Certain to be contentious is the Senate bill's renewable portfolio standards (RPS) mandate that would require utilities to obtain 10% of their power from renewable sources by 2020. Abraham last week reiterated the administration's opposition to it and said it favors instead handing RPS requirements to the states and extending a renewable energy production tax credit." *Id.* *See also Merger Review, Renewables, RTO Policy Set For Controversy on Hill*, ELECTRIC UTIL. WK., Sept. 23, 2002, at 1. "The House conferees rejected an amendment by Rep. Henry Waxman (D-Calif.) to adopt the Senate-passed renewables portfolio standard as the House position." *Id.*

582. *Electricity Legislation Fate in Doubt, Conflicts Remain; Few See Much Gain*, ELECTRIC UTIL. WK., Oct. 7, 2002, at 1. "A deal on the electricity title in the comprehensive energy bill, H.R. 4, appeared to be close late last week, but word of what the agreement might contain had utilities, public power, consumer groups and environmentalists wishing the title would just go away." *Id.*; *Continuing Disputes Over Energy Bill's Provisions Leads to Pessimism About Possible Passage*, FOSTER ELECTRIC REP., Oct. 9, 2002, at 5. "As House and Senate energy conferees continue to be at loggerheads over key provisions of comprehensive energy legislation, the mood among key legislators over the prospects of reaching a deal before Congress adjourns has turned decidedly pessimistic." *Id.*; *Energy Bill Keeps Fading, But Still Hangs on By a Thread in Congress*, ELECTRIC UTIL. WK., Oct. 14, 2002, at 3. "The prospect of electricity legislation this year - and of any comprehensive energy bill, for that matter - grew dimmer and dimmer last week, although it had not disappeared entirely as some in Congress promised to keep working on the possibility." *Id.*; *Energy Bill Looks Dead, But Obituary Cannot Be Written Until After Nov. 5*, ELECTRIC UTIL. WK., Oct. 21, 2002, at 3. "Time may have run out in Washington for the electricity title and perhaps the entire energy bill. But unsurprisingly, the death knell cannot be sounded, because there is still the possibility

Senate and appeared to ensure that H.R. 4 would not be enacted by the 107th Congress.[583]

G. *Blackout of 2003*

On August 14 to August 15 of 2003, the northeastern U.S. suffered the worst electric power blackout in history.[584] Over 50 million people in New York, Connecticut, Massachusetts, Vermont, New Jersey, Pennsylvania, Ohio, Michigan, and Ontario, Canada, went without electric power for up to 48 hours.[585] Within nine seconds, an electric power surge had caused 100 power plants and 61,800 MW of electric generation to trip offline.[586]

There was no dearth of explanations for this seemingly catastrophic failure of the U.S. electric power grid in its immediate aftermath. Governor Bill Richardson of New Mexico, the Secretary of

---

that a post-election 'lame duck' session of Congress could change the picture. *Id. See also Energy Bill Discussions Continue Despite Mid-Term Elections, Breathitt Will Keep FERC Seat Until End of Lame Duck Session, While Two Candidates Bide Time*, FOSTER ELECTRIC REP., Oct. 23, at 2; *Some Officials Still Hold Out Hope for Energy Bill, Renewables a Key*, ELECTRIC UTIL. WK., Oct. 28, 2002, at 12.

583. "Any hopes that the 107th Congress could pass a comprehensive energy bill during a lame-duck session that began this week flew out the window with the recent elections giving Republicans control of the Senate." FOSTER ELECTRIC REP., Nov. 13, 2002, at 2. "Republican Party gains on Election Day last week placed the fate of an energy bill - especially one with electricity provisions favored by the previously Democrat-led chamber - on the critical list for this year." *Shift in Senate Hikes Doubt for Energy Bill Even More, Clean Air Eyed in 2003*, ELECTRIC UTIL. WK., Nov. 11, 2002, at 5.

584. *See, e.g.*, James Barron, *Power Surge Blacks Out Northeast, Hitting Cities in 8 States and Canada; Midday Shutdowns Disrupt Millions*, N.Y. TIMES, Aug. 15, 2003, at A1.

585. *See, e.g.*, James Barron, *Lights Go On After Biggest Blackout, But Not Without 2nd Day of Suffering*, N.Y. TIMES, Aug. 16, 2003, at A1.

586. *Id.*; *see also* Matthew L. Wald et al., *The Blackout: What Went Wrong; Experts Asking Why Problems Spread So Far*, N.Y. TIMES, Aug. 16, 2003, at A1.

Energy for the Clinton administration, faulted the age of the U.S. electric transmission system.[587] The Governor opined that "[w]e are a major superpower with a third-world electrical grid."[588] An alternative explanation blamed deregulation.[589]

Within days of the blackout, the U.S. and Canada established a Power System Outage Task Force to thoroughly investigate its causes.[590] In September, the task force released its reconstruction of

---

587. *See* David Firestone & Richard Perez-Peña, *The Blackout of 2003: The Context; Failure Reveals Creaky System, Experts Believe*, N.Y. TIMES, Aug. 15, 2003, at A1.

588. *Id.*; *see also* David Firestone & Andrew C. Revkin, *Warnings Long Ignored on Aging Electric System*, N.Y. TIMES, Aug. 16, 2003, at B4. "For years, the nation's electrical engineers and planners have warned that the North American system of transmitting electricity was becoming the orphan of the digital era, approaching a serious failure if not significantly upgraded." *Id.*

589. "In the search for the source of Thursday's blackout, the underlying cause has been all but ignored: deregulation. In principle, deregulation of the power industry was supposed to use the discipline of free markets to generate just the right amount of electricity at the right price. But electric power, it turns out, is not like ordinary commodities." Robert Kuttner, *The Day the Lights Went Out: An Industry Trapped by a Theory*, N.Y. TIMES, Aug. 16, 2003, at A25.

590. *See* DeNeen L. Brown, *After Trading Blame, U.S., Canada Plan a Joint Probe*, WASH. POST, Aug. 17, 2003, at A14. "Canadian Prime Minister Jean Chretien and President Bush have agreed to set up a task force to figure out what caused the massive power outage that plunged millions in the United States and Canada into darkness." *Id.*; Greg Schneider & Kenneth Bredemeier, *U.S., Canada to Control Blackout Probe; Power System Operators, Utility Executives to Contribute to Joint Task Force*, WASH. POST, Aug. 20, 2003, at A8. "The Bush administration took control yesterday of the investigation into the nation's worst power outage, halting the separate probe by the power industry's own policing agency and setting up a joint task force with the Canadian government." *Id.*; Jonathan Finer & Kenneth Bredemeier, *U.S., Canada Pledge to Press Joint Investigation of Blackout*, WASH. POST, Aug. 21, at A3. "The leaders of a joint U.S.-Canadian task force investigating last week's massive blackout outlined the structure of the new body today and vowed to

the sequence of events that had led to the massive blackout.[591] In November, the task force released an interim report (Task Force Report).[592] The Task Force Report discussed the North American electric power system in general,[593] the status of the Northeastern power grid before the blackout,[594] the initiation of the blackout,[595] and the "cascade stage" of the blackout.[596]

The report dismissed several possible explanations for the blackout, *e.g.*, high power flows to Canada, low voltages, low reactive power output from independent power plants, and unavailable transmission lines.[597] The Task Force report also traced the initiation of the blackout to a loss of generation plants and transmission lines operated by FirstEnergy Corporation, which owns seven electric utilities in the Midwest. The loss of a 345-kv transmission line, the report concludes, was "the event that triggered the uncontrollable cascade portion of the blackout sequence."[598] The report also states that "[a]nalysis to date provides no evidence that malicious actors are responsible for, or contributed to, the outage."[599]

---

move as quickly as possible to determine how the outages began and why they were not contained." *Id.*

591. U.S.-CAN. POWER SYS. OUTAGE TASK FORCE, INITIAL BLACKOUT TIMELINE (Sept. 12, 2003). "This sequence of events for the August 14, 2003 blackout summarizes some of the many significant events that occurred before and during this widespread and complex system failure." *Id.* at 14. *See also Task Force Investigating Blackouts Releases Time Line of Events*, FOSTER ELECTRIC REP., Sept. 17, 2003, at 2.; *Timeline Leaves FirstEnergy in the Hotseat But Officials Not Ready to Play Blame Game*, ELECTRIC UTIL. WK., Sept. 15, 2003, at 23.

592. U.S.-CAN. POWER SYS. OUTAGE TASK FORCE, INTERIM REPORT: CAUSES OF THE AUGUST 14TH BLACKOUT IN THE UNITED STATES AND CANADA (2003).

593. *See id.* at 3-14.

594. *See id.* at 15-20.

595. *See id.* at 21-48.

596. *See id.* at 49-66.

597. *See id.* at 15.

598. *Id.* at 21.

599. *Id.* at 93. *See generally* Peter Behr, *Probers Say Blackout in August Was Avoidable*, WASH. POST, Nov. 20, 2003, at A1; Behr, *Report to Pin Blackout on Lax Midwest Rules, Task Force Says No*

Within weeks of the blackout, which occurred during a congressional recess, the 108th Congress investigated. In two days of hearings, the House Committee on Energy and Commerce heard from Secretary Abraham of the DOE, Chairman Wood of the FERC, the governors of Ohio and Michigan, the mayor of Cleveland, the chairmen of the public service commission of Ohio, Michigan and New York, the chairmen of several electric utilities, EEI and the North American Electric Reliability Council (NERC).[600]

Secretary Abraham briefly reported on the work of the Power System Outage Task Force.[601] Chairman Wood observed that, although the FERC regulates the reasonableness of rates for electric power sold in wholesale interstate commerce under the Federal Power Act, "there is no direct federal authority or responsibility for the reliability of the transmission grid."[602] After a devastating blackout in the Northeast in 1965, the NERC, an organization of electric utilities, adopted rules to ensure the reliable operation of the transmission grid. The rules, however, are not enforceable.

Thus, Chairman Wood called for legislation to provide for transmission rules that are enforceable by an organization subject to FERC oversight. In addition, Chairman Wood sought the repeal of PUHCA to encourage investment in transmission facilities. Finally, the chairman urged the enactment of legislation to authorize the FERC to condemn non-federal land for transmission rights-of-way.

In his prepared statement to the committee, the president of the NERC agreed on the need for enforceable rules to ensure the reliable operation of the transmission grid.[603] EEI also testified on the need

---

One is in Charge, WASH. POST, Nov. 19, 2003, at A2. *See also* GEN. ACCOUNTING OFFICE, ELECTRICITY RESTRUCTURING: 2003 BLACKOUT IDENTIFIES CRISIS AND OPPORTUNITY FOR THE ELECTRICITY SECTOR, GAO-04-204 (2003).

600. *See Blackout 2003: How Did it Happen and Why? Hearings Before the House Comm. on Energy and Commerce*, 108th Cong. (2003).

601. *See id.* at 36-37 (statement of Hon. Spencer Abraham, Sec'y, DOE).

602. *Id.* at 123 (statement of Patrick H. Wood III, Chairman, FERC).

603. *See id.* at 140-42 (statement of Micheal R. Gent, President, NERC). "NERC is uniquely qualified to set standards for the reli-

for enforceable rules in addition to the need to (i) eliminate "roadblocks" to investment in transmission facilities, (ii) authorize the FERC to condemn non-federal land for transmission rights-of-way, (iii) reform the process to acquire permits for transmission rights-of-way over federal lands, (iv) repeal PUHCA, (v) reform FERC policies on rates that can be charged by electric utilities for transmission services, and (vi) revise the tax code to encourage investment in transmission facilities.[604]

Even before the power was returned, there was broad recognition that the Blackout of 2003 would contribute to the momentum behind the enactment of comprehensive national energy legislation in the 108th Congress. The New York Times reported that "[t]he blackout will give new urgency to an energy plan that has languished in Congress for more than two years . . . ."[605]

H. *108th Congress (2003-2004)*

The mid-term congressional elections of November 2002 yielded Republican control in both Houses of the 108th Congress. With the considerable momentum behind the enactment of comprehensive national energy legislation that the Blackout of 2003 had produced, the 108th Congress seemed poised to pick up where the 107th Congress had left off and introduce the Energy Policy Act of 2002 anew. Despite these indicators, the First Session of the 108th Congress failed to produce a comprehensive energy bill.

The original federal RPS proposals arose in the context of electric utilities reform and the introduction of competition in retail electric power markets. Nonetheless, even after the congressional proponents of retail competition fell silent in the aftermath of the collapse of Enron and the California energy crisis, the momentum for com-

---

able operation of North America's high voltage, interconnected grid system, and we hope soon to be able to enforce those standards." *Id.*

604. *Id.* at 373-76 (statement of David K. Owens, Exec. V.P., EEI).

605. Carl Hulse, *The Blackout: Legislation; After 2 Years, Energy Bill Is Getting New Urgency in Congress*, N.Y. TIMES, Aug. 16, 2003, at B14. "There was wide agreement that the blackout would give new momentum to the energy bill, which has been a secondary priority of Congressional leaders who for much of the year focused on other issues." *Id.*

prehensive energy legislation appeared to accelerate in the Republican-controlled 108th Congress after the Blackout of 2003.

In view of extensive prior efforts since 1997 to enact an energy bill, there appeared to be no need for seemingly duplicative congressional hearings on energy issues or on proposed legislation. The House Energy and Commerce Committee decided to hold a handful of hearings throughout the First Session on miscellaneous energy issues,[606] without holding hearings on proposed legislation *per se*.

A comprehensive energy bill, H.R. 6, the Energy Policy Act of 2003,[607] was introduced on Monday, April 7.[608] The bill was approved by the House, with amendments, on a vote of 247-175, on Friday, April 11.[609] Sponsored by Rep. Tauzin, still Chairman of the House Committee on Energy and Commerce, H.R. 6 was subject to a House rule to limit amendments and floor debate,[610] which rule provided for rapid consideration and approval.

---

606. *Comprehensive National Energy Policy: Hearings Before the House Comm. on Energy and Commerce*, 108th Cong. (2003); *The Hydrogen Energy Economy: Hearing Before the Subcomm. on Energy and Air Quality of the House Comm. on Energy and Commerce*, 108th Cong. (2003); *Natural Gas Supply and Demand Issues: Hearing Before the House Comm. on Energy and Commerce*, 108th Cong. (2003); *Future Options for Generation of Electricity From Coal: Hearings Before the House Comm. on Energy and Commerce*, 108th Cong. (2003).

607. H.R. 6, 108th Cong. (2003). *See also* Energy Policy Act of 2003, H.R. 1644, 108th Cong. (2003). H.R. 1644 was introduced on April 7 by Rep. Barton, Chairman of the Energy and Air Quality Subcommittee. *Id.* The House Committee on Energy and Commerce approved H.R. 1644 with amendments on April 8. *See* H.R. REP. NO. 108-65 (2003). The Committee agreed that the report on H.R. 1644 also would constitute a report on H.R. 6. "A request by Mr. Tauzin to allow a report to be filed on a bill to be introduced by Mr. Tauzin, and that the actions of the Committee be deemed as actions on that bill, was agreed to by unanimous consent." *Id.* at 110.

608. 149 CONG. REC. H2863 (daily ed. Apr. 7, 2003).

609. 149 CONG. REC. H3331 (daily ed. Apr. 11, 2003).

610. "The first reading of the bill shall be dispensed with. All points of order against consideration of the bill are waived. General debate shall be confined to the bill and shall not exceed one hour and 30 minutes . . . ." H.R. Res. 189, 108th Cong. (2003). *See also* H.R.

The 750-page behemoth approved by the House would have,[611] *inter alia*, (i) enacted the Energy Policy Act of 2003;[612] (ii) prescribed a DOE program of research, development, demonstration, and commercialization on energy conservation, electric power systems, renewable resources, fossil fuels, nuclear power and hydrogen;[613] (iii) restructured programs for oil and gas exploration on federal lands,[614] enacted the Arctic Coastal Plain Domestic Energy Security Act of 2003 to authorize oil and gas exploration on the Arctic coastal plain,[615] and enacted the Coal Leasing Amendments Act of 2003 to restructure programs to permit coal mines on federal lands;[616] and (iv) enacted the Energy Tax Policy Act of 2003.[617]

The Energy Policy Act of 2003 would have, *inter alia*, (i) reauthorized federal energy conservation programs;[618] (ii) enacted the Alaska Natural Gas Pipeline Act of 2003 to provide for the expedited approval, construction, and operation of a natural gas pipeline, from Alaska to the contiguous 48 states,[619] and required the expan-

---

REP. NO. 108-69 (2003) (Committee on Rules report on H.R. Res. 189); 149 CONG. REC. H3049 (daily ed. Apr. 9, 2003) (submission of H.R. REP. NO. 69). The House approved H. Res. 189 without amendment on April 10 on a vote of 236-190. *See* 149 CONG. REC. H3087 (daily ed. Apr. 10, 2003).

611. H.R. 6, 108th Cong. (2003). The seven divisions of H.R. 6 addressed (i) energy and commerce, (ii) science, (iii) resources, (iv) taxes, (v) clean coal, (vi) hydrogen, and (vii) housing. The eight titles of the energy and commerce division addressed (i) conservation, (ii) oil and gas, (iii) hydroelectric, (iv) nuclear, (v) vehicles and fuels, (vi) electric power, (vii) motor fuels, and (viii) automobiles. The ten subtitles of the electric power title addressed (i) transmission assets, (ii) transmission operations, (iii) reliable transmission networks, (iv) PUHCA, (v) PURPA, (vi) renewable resources, (vii) electric power market rules, (viii) consumer protections, (ix) merger review reform, and (x) economic dispatch. *Id.*

612. *See id.* §§ 10001-18002.

613. *See id.* §§ 20001-23004.

614. *See id.* §§ 30201-30220.

615. *See id.* §§ 30401-30412.

616. *See id.* §§ 30701-30708.

617. *See id.* §§ 40001-44002.

618. *See id.* §§ 11001-11047.

619. *See id.* §§ 12001-12014.

sion of the Strategic Petroleum Reserve to one billion barrels;[620] (iii) authorized a DOE pilot program of competitive grants to state and local governments and metropolitan transportation authorities for the acquisition of alternative fueled vehicles and hybrid vehicles;[621] (iv) required the adoption of EPA regulations to ensure a renewable content in gasoline sold in the 48 contiguous states;[622] restricted lawsuits for contamination from MTBE;[623] (v) authorized funds for the environmental remediation of MTBE contamination;[624] and authorize funds for the implementation and enforcement of automobile fuel economy standards.[625]

Finally, Title VI of the Energy Policy Act of 2003 would have, *inter alia*, authorized incentives for investments in new transmission lines,[626] urged electric utilities with transmission assets to join regional transmission organizations,[627] authorized the FERC to regulate a national electric reliability organization,[628] repealed PUHCA, [629] repealed Section 210 of PURPA, [630] prohibited "wash" trades in

620. *See id.* §§ 12101-12103.
621. *See id.* §§ 15021-15024.
622. *See id.* § 17101.
623. "Notwithstanding any other provision of Federal or State law, no renewable fuel . . . or fuel containing MTBE, used or intended to be used as a motor vehicle fuel, nor any motor vehicle fuel containing such renewable fuel or MTBE, shall be deemed defective in design or manufacture by virtue of the fact that it is, or contains, such a renewable fuel or MTBE, if it does not violate a control or prohibition imposed by the [EPA]." *Id.* § 17102(a). *But see* Dan Morgan, *Nursing a Fragile Energy Bill; Protection for Fuel-Additive Makers a Sticking Point in Senate*, WASH. POST, Nov. 24, 2003, at A5. "Senators in both parties delivered harsh attacks on the liability waiver last week." *Id.*
624. *See* H.R. 6, 108th Cong. § 17201 (2003).
625. *See id.* §§ 18001-18002.
626. *See id.* § 16011.
627. *See id.* § 16022.
628. *See id.* § 16031.
629. *See id.* §§ 16041-16056.
630. *See id.* § 16062.

wholesale electric spot markets, [631] and enacted consumer protections.[632]

Title VI of the Energy Policy Act of 2003 did not, however, include an RPS.

In the Senate, the Energy and Natural Resources Committee also held a handful of hearings throughout the First Session on miscellaneous energy issues.[633] In March 2003, just two months into the 108th Congress, the committee prepared to draft a comprehensive energy bill "because a great deal of the work was done last year, and much of it will be carried forward."[634] The committee bill was introduced by Senator Pete V. Domenici (R-NM), Chairman of the Senate Committee on Energy and Natural Resources, in late April 2003.[635] Despite predictions of expeditious consideration,[636] three

---

631. *See id.* § 16082.

632. *See id.* §§ 16091-16094.

633. *Oil Supply and Prices: Hearing Before the Senate Comm. on Energy and Natural Res.*, 108th Cong. (2003); *Natural Gas Supply and Prices: Hearing Before the Senate Comm. on Energy and Natural Res.*, 108th Cong. (2003); *Financial Condition of the Electricity Market: Hearing Before the Senate Comm. on Energy and Natural Res.*, 108th Cong. (2003); *Energy Efficiency and Conservation: Hearing Before the Senate Comm. on Energy and Natural Res.*, 108th Cong. (2003); *High Prices of Natural Gas: Hearing Before the Senate Comm. on Energy and Natural Res.*, 108th Cong. (2003).

634. *Electricity Proposals and Electric Transmission and Reliability Enhancement Act of 2003: Hearing Before the Senate Comm. on Energy and Natural Res.*, 108th Cong. (2003). "While there will be changes proposed in the chairman's mark, a substantial portion of the work has been done." *Id.* *See also* Electric Transmission and Reliability Enhancement Act of 2003, S. 475, 108th Cong. (2003). Sen. Craig Thomas (R-WY) introduced S. 475 in late February 2003. *Id.* "It is my intention to build on a changing wholesale, competitive, open access market and to suggest that we build that into a policy. Things have changed in the way energy is generated, the way energy is transmitted, the way energy is sold. We need to change our policy, as well." 149 CONG. REC. S2929 (daily ed. Feb. 27, 2003).

635. S. 14, 108th Cong. (2003). *See also* Energy Policy Act of 2003, S. 1005, 108th Cong. (2003). The Senate Committee on Energy and Natural Resources issued a report on S. 1005. S. REP. NO.

months of floor debate in the Senate on S.14 ensued. During this time, the Senate considered 200 amendments,[637] and ultimately failed to produce a vote to approve the bill. In exasperation over the deadlock, the Senate, in a maneuver reminiscent of the 107th Congress, replaced the language of H.R. 6, which the House had referred to the Senate, with the language of S. 517 from the 107th Congress and,[638] on a vote of 84-14 in late July, approved H.R. 6.[639]

108-43 (2003). The report explains that "on April 30, Senator Domenici introduced S. 14, the Energy Policy Act of 2003, *which includes the provisions of this measure as ordered reported.*" *Id.* (emphasis added). *See generally Senate Bill Stomps on FERC's Market Design, Could Get Still Stronger As Floor Debate Begins*, ELECTRIC UTIL. WK., May 5, 2003, at 1; *FERC Market Design Plan Gets New Support From States As Full Senate Eyes Energy Bill*, ELECTRIC UTIL. WK., May 12, 2003, at 1. "The Bush administration commended the Senate for drafting a bill 'largely consistent with the administration's National Energy Policy.'" *Id.*

636. *See, e.g.*, *Domenici Sees Bill Clearing Senate Shortly, With Few Changes, If Any, to Electricity Title*, ELECTRIC UTIL. WK., June 9, 2003, at 1; *Domenici to Redraft Electricity Package, He Vows to See Senate Bill Passage by August*, ELECTRIC UTIL. WK., June 23, 2003, at 6; *Domenici Pledges Senate Will Finish Energy Bill By August Recess, FERC's Standard Market Design Will Go Into Effect As Planned in 2005*, FOSTER ELECTRIC REPORT, June 25, 2003, at 1. "The electricity title of the Energy Policy Act of 2003 has been one of its most contentious features." *Id.* *See also Electricity Picture Unclear So far, But Senate Seen Likely to Pass Energy Bill Before August*, ELECTRIC UTIL. WK., July 14, 2003, at 1.

637. *See, e.g.*, S. Amend. No. 1337, 149 CONG. REC. S9807 (daily ed. July 23, 2003); S. Amend. No. 1536, 149 CONG. REC. S10735-36 (daily ed. July 31, 2003).

638. *See generally* S. Amend. No. 1537, 149 CONG. REC. S10736-835 (daily ed. July 31, 2003). S. Amendment No. 1537, an amendment in the nature of a substitute, replaced the language of H.R. 6 with the language of the Energy Policy Act of 2002. S. Amendment No. 1537 was approved by unanimous consent on July 31, 2003. *Id.*

639. 149 CONG. REC. S10570 (daily ed. July 31, 2003). *Senate Energy Bill: It's Déjà Vu All Over Again*, FOSTER ELECTRIC REP., Aug. 6, 2003, at 1. "With the realization that an energy bill was not going to pass unless something radical was done, [it was] decided

As such, the House version of H.R. 6 differed from the Senate version of H.R. 6, which was identical to S. 517 from the 107th Congress. For example, although the House-approved Energy Policy Act of 2003 as well as the Senate-approved Energy Policy Act of 2003 included provisions on electric utilities reform, the House bill included no RPS. Once again, a House-Senate conference committee was convened.

Throughout September and October 2003, the conference committee grappled with seemingly irreconcilable differences over, *inter alia*, electric issues that pitted not just Republicans against Democrats but congressmen from the Northeast and the Midwest against congressmen from the South and the West. For example, there was significant disagreement over proposals relating to a FERC initiative on wholesale electric power markets.

In July 2002, the FERC had issued a Notice of Proposed Rulemaking (NOPR) to restructure wholesale electric power markets.[640] The NOPR represented "the third in a series of initiatives undertaken by the Commission to harness the benefits of competitive markets for the nation's electric energy customers, in order to meet [the] statutory responsibility to assure adequate and reliable supplies of electric energy at a just and reasonable price."[641] Order No. 888,[642] issued in

---

that last year's Democratic bill – which passed 88-11 but died in a conference committee convened to work out its differences with a House energy bill – would at least move the discussions to another conference committee once Congress returns to town in September." *Id.*; *With a Twist, Senate Gets Energy Bill Out the Door, Sets Up Unusual Dynamic for House Negotiation*, ELECTRIC UTIL. WK., Aug. 4, 2003, at 1. "The apparently wily maneuver enabled leadership of the sharply divided Senate, which Republicans control by only two votes, to get an energy bill on the road to signature by President Bush." *Id.*

640. Remedying Undue Discrimination through Open Access Transmission Service and Standard Electricity Market Design, 67 Fed. Reg. 55,451 (Aug. 29, 2002).

641. *Id.* at 55,454 ¶ 1.

642. Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities, Order No. 888, 61 Fed. Reg. 21,540 (May 10, 1996), *order on reh'g*, Order No. 888-A, 62 Fed. Reg. 12,274 (Mar. 14, 1997), *order on reh'g*, Order No. 888-B, 81 F.E.R.C. (CCH) ¶ 61,248 (1997), *order*

1996, and Order No. 2000,[643] issued in 1999, had provided a firm foundation for competitive wholesale markets, which nonetheless continued to pose obstacles to increased competition and participation in those markets.[644] The FERC embarked on a rulemaking proceeding "to remedy remaining undue discrimination and establish a standardized transmission service and wholesale electric market design that will provide a level playing field for all entities that seek to participate in wholesale electric markets."[645]

In particular, the NOPR would amend FERC regulations under the Federal Power Act to (i) exercise jurisdiction over the transmission component of bundled electric power retail transactions, (ii) revise the standard transmission tariff adopted in Order No. 888 to include a single flexible transmission service that applies consistent transmission rules for all transmission services (wholesale, unbundled retail and bundled retail), and (iii) provide a standard market design for wholesale electric power markets.[646]

Within the 108th Congress, however, there was considerable opposition to the FERC proposal on standardized wholesale power market design. The Senate version of H.R. 6 did not address the standard market design (SMD) issue. S. 14, however, would have prohibited the promulgation of the SMD regulations prior to July 1,

---

on reh'g, Order No. 888-C, 82 F.E.R.C. (CCH) ¶ 61,046 (1998), *aff'd in relevant part sub nom.* Transmission Access Policy Study Group v. FERC, 225 F.3d 667 (D.C. Cir. 2000), *aff'd sub nom.* New York v. FERC, 535 U.S. 1 (2002).

643. Regional Transmission Organizations, Order No. 2000, 65 Fed. Reg. 809 (Jan. 6, 2000), *order on reh'g*, Order No. 2000-A, 65 Fed. Reg. 12,088 (Mar. 8, 2000), *aff'd*, Public Utility District No. 1 of Snohomish County, Washington v. FERC, 272 F.3d 607 (D.C. Cir. 2001).

644. "However, as events have transpired, there remain significant impediments to competitive markets and to the infrastructure needed to meet our electric energy demand. Unduly discriminatory transmission practices have continued to occur and inconsistent design and administration of short-term energy markets has resulted in pricing inefficiencies that can cause rates to be unjust and unreasonable." 67 Fed. Reg. ¶ 2, at 55,454.

645. 67 Fed. Reg. ¶ 3, at 55,455.

646. *See* 67 Fed. Reg. ¶ 6, at 55,455.

2005.[647] Led by Senator Richard C. Shelby (R-AL), and with the support of Vice President Cheney, a bipartisan coalition of two dozen senators from the South and the West sought to include a similar provision in the Senate version of H.R. 6.[648] This SMD moratorium was opposed and thwarted by a bipartisan coalition of two dozen senators from the Northeast.

In addition to SMD, the House and Senate disagreed over a federal RPS. In contrast to the Senate version of H.R. 6, the House version of H.R. 6 included no RPS. In late September 2003, a bipartisan coalition of 53 senators unsuccessfully urged the chairmen of the conference committee, Sen. Domenici and Rep. Tauzin, to include an RPS in H.R. 6.[649]

Amid repeated allegations that the Republican-controlled conference committee excluded the meaningful participation of Democratic congressmen, the committee labored on a compromise bill for three months. In November 2003, the conference committee filed a

---

647. "The Commission's proposed rulemaking entitled 'Remedying Undue Discrimination Through Open Access Transmission Service and Standard Electricity Market Design' (Docket No. RM01-12-000) is remanded to the Commission for reconsideration. No final rule pursuant to the proposed rulemaking, including any rule or order of general applicability within the scope of the proposed rulemaking, may be issued before July 1, 2005. Any final rule issued by the Commission pursuant to the proposed rulemaking, including any rule or order of general applicability within the scope of the proposed rulemaking, shall be proceeded by a notice of proposed rulemaking issued after the date of enactment of this Act and an opportunity for public comment." S. 14, 108th Cong. § 1121 (2003).

648. *Still on SMD Seesaw, Lawmakers Find It Harder Than They Had Hoped to Forge Final Energy Bill*, ELECTRIC UTIL. WK., Oct. 6, 2003, at 3; *Planned Vote on Conference Report on Energy Bill Moved Back to Mid-October*, FOSTER ELECTRIC REP., Oct. 1, 2003, at 7.

649. *See* Dan Morgan & Peter Behr, *Renewable Energy Provision Stalls; Conferees Will Not Consider Senate Requirement in Compromise Legislation*, WASH. POST, Sept. 30, 2003, at A4. "Rejecting an eleventh-hour plea by 53 senators, Republicans drafting a far-reaching energy bill have decided not to require most large utilities to increase the amount of electricity they generate from wind, solar, hydro, geothermal and other renewable sources." *Id.*

report with a 1700-page compromise Energy Policy Act of 2003.[650] Within hours, the House approved the report on a vote of 246-180.[651] The next day, the Senate agreed to a motion by Majority Leader Bill Frist (R-TN) to proceed with consideration of the report.[652] Thereafter, the report was filibustered, and a subsequent motion for cloture, on a vote of 57-43, was rejected.[653] The Energy Policy Act of 2003 was dead for the First Session of the 108th Congress.[654]

---

650. H. REP. NO. 108-375 (2003). *See generally* 149 CONG. REC. H11,207-356 (daily ed. Nov. 18, 2003) (text of report). *See also* Dan Morgan, *Conferees Approve Energy Bill*, WASH. POST, Nov. 18, 2003; Dan Morgan & Peter Behr, *GOP Hails Deal on Energy Bill, Republicans Upbeat; Democrats Skeptical,* WASH. POST, Nov. 15, 2003, at A10.

651. 149 CONG. REC. H11,431-32 (daily ed. Nov. 18, 2003). Dan Morgan, *House Approves Energy Measure*, WASH. POST, Nov. 19, 2003, at A1. "The House gave final approval yesterday to the most comprehensive energy legislation since 1992 after Republican leaders said it would create 800,000 jobs, spur investment in the overburdened electricity grid and reduce dependence on foreign energy supplies." *Id.*

652. 149 CONG. REC. S15,111 (daily ed. Nov. 19, 2003). *But see* Dan Morgan, *Senators From Both Parties Criticize Energy Legislation*, WASH. POST, Nov. 20, 2003, at A17. "Congressional Republicans took their energy legislation to the Senate yesterday and immediately ran into a barrage of criticism from members of both parties concerned about the huge bill's environmental impact and its favors for special interests." *Id.*

653. 149 CONG. REC. S15,334-35 (daily ed. Nov. 21, 2003). A motion for cloture requires a vote of three-fifths of the Senate. *Id.* at S15,335. "I am very disappointed that we are, at this point, [three] votes short; that we are facing another filibuster on a very important policy for the American people." *Id.* (statement of Sen. Bill Frist). Dan Morgan, *Senate Energy Bill Is Blocked, GOP Thwarted in Getting Floor Vote*, WASH. POST, Nov. 22, 2003, at A1. "But the divisions were more regional than partisan. Thirteen Democrats, most from farm states, joined 44 Republicans in a bid to end debate and bring the measure to a vote. Seven Republicans, 32 Democrats and 1 Independent voted to sustain the delaying tactic." *Id.*

654. Dan Morgan, *Senate Energy Bill Dead for This Year*, WASH. POST, Nov. 25, 2003, at A4. "Senate Republicans last night aban-

CONCLUSION

The deliberations of the conference committee that fashioned the compromise Energy Policy Act of 2003 reveal the extent of political disagreement over a federal RPS and the imposition of quotas on electric power generated from renewable resources. Despite the entreaties of a bipartisan coalition of 53 senators, and in apparent disregard of efforts since 1997 to enact a federal RPS, the conference committee rejected a proposal to amend Title VI of PURPA to establish a federal RPS applicable to electric utilities engaged in retail electric power sales.

Perhaps the conference committee might have accepted an alternative proposal, *i.e.*, a proposal consistent with the concerns in Title I of PURPA for states rights and the traditional state prerogative to regulate the retail rates and services of electric utilities. The Electric Consumers' Power to Choose Act of 1997 would have imposed a federal RPS on electric utilities engaged in power generation. The Senate version of the Energy Policy Act of 2003, however, would have imposed a federal RPS on electric utilities engaged in retail sales.

To the extent that a federal RPS would be applicable to electric utilities engaged in retail sales, the quotas under a federal RPS should not be a miscellaneous requirement of Title VI of PURPA but a provision of Section 113 of PURPA, which establishes five fundamental policies for retail electric power rates and services. The adoption and implementation of those policies by state public service commission is not required. Instead, Section 113 merely requires each state commission to examine each standard and to determine, within two years, if the standard should be implemented within the state.

---

doned attempts to pass energy legislation this year after efforts by the White House to find a way out of the impasse that has stalled action on the bill since Friday failed to produce results." *Id. See also* Peter Behr & Dan Morgan, *Without Energy Legislation, Grid, Power Policy in Limbo*, WASH. POST, Nov. 27, 2003, at E1. "Congress's failure to enact new energy legislation has left the nation's electricity grid as it was on the day of the huge Northeast blackout Aug. 14, with no enforceable operating rules aimed at preventing cascading power failures." *Id.*

A similar legislative approach should be taken with respect to a federal RPS. The 108th Congress should amend Section 113 of PURPA to require state public service commissions in states without an RPS to initiate a proceeding for the possible promulgation of a state RPS. Rather than mandating the adoption of an RPS, a decision not to adopt a state RPS, should require a written and public explanation.

PROPOSED AMENDMENT TO PURPA

Be it enacted by the Senate and the House of Representatives of the United States of America in Congress assembled –

SEC. 1. SHORT TITLE. This Act may be referred to as the Public Utility Regulatory Policies Act Amendments of 2004.

SEC. 2. The Public Utility Regulatory Policies Act is amended by adding after section 117 the following new section:

Sec. 118. RENEWABLE PORTFOLIO STANDARDS.

(a). Not later than two years after the date of the enactment of the Public Utility Regulatory Policies Act Amendments of 2004, each State regulatory authority (with respect to each electric utility for which it has regulatory authority), and each nonregulated electric utility, shall provide public notice and conduct a hearing respecting the standards established by subsection (c) and, on the basis of such hearing, shall adopt the standards established by subsection (c) of this section if, and to the extent, such authority or nonregulated electric utility determines that such adoption is appropriate, and is consistent with otherwise applicable State law.

(b). Nothing in this subsection prohibits any State regulatory authority or nonregulated electric utility from making any determination that it is not appropriate to adopt any standard established by subsection (c), pursuant to its authority under otherwise applicable State law.

(c). The following Federal standards are hereby established:

(1). For each calendar year beginning with 2004, each retail electric supplier shall submit to the State public service commission renewable energy credits in an amount equal to the required annual percentage, specified in subsection (c)(2), of the total electric energy sold by the retail electric supplier to electric consumers in the calendar year.

(2). For calendar year 2004, the required annual percentage shall be 2.5 percent of the retail electric supplier's base amount; for calendar year 2005, the required annual percentage shall be 5.0 percent of the retail electric supplier's base amount; and for each calendar year from 2006 through 2020, the required annual percentage of the retail electric supplier's base amount shall be 0.5 percent greater than the required annual percentage for the calendar year immediately preceding.

(3) A retail electric supplier may satisfy the requirements of subsection (c)(1) through the submission of renewable energy credits issued for renewable energy generated by the retail electric supplier in the calendar year for which credits are being submitted or any of the two previous calendar years; renewable energy credits obtained by purchase or exchange; or renewable energy credits borrowed against future years.

(4) The State public service commission shall establish, not later than one year after the date of enactment of this section, a program to issue, monitor the sale or exchange of, and track renewable energy credits. The State public service commission shall issue to an entity one renewable energy credit for each kilowatt-hour of electric energy the entity generates in calendar year 2004 and any succeeding year through the use of a renewable energy resource at an eligible facility.

(5) A renewable energy credit may be sold or exchanged by the entity to whom issued or by any other entity who acquires the credit. A renewable energy credit for any year that is not used to satisfy the minimum renewable generation requirement of subsection (c)(1) for that year may be carried forward for use in another year.

(d). Each State regulatory authority (with respect to each electric utility for which it has ratemaking authority) and each nonregulated electric utility, within the two-year period specified in subsection (a) of this section, shall (1) adopt, pursuant to subsection (a) of this section, each of the standards established by subsection (c) of this section, or, (2) with respect to any such standard which is not adopted, such authority or nonregulated electric utility shall state in writing that it has determined not to adopt such standard, together with the reasons for such determination. Such statement of reasons shall be available to the public.