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SITING OF ENERGY FACILITIES IN THE COASTAL ZONE — A CRITICAL REGULATORY HIATUS

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With the advent of the "energy crisis" and the resultant need to resort to a variety of new energy strategies, it has been recognized that the lack of an effective regulatory process for the siting of energy-related facilities in the coastal zone presents a critical barrier to the environmentally acceptable implementation of necessary energy programs within a suitable time. Both increased domestic production¹ and the improvement of facilities for receipt of imported energy sources, at least for the immediate future,² are important national energy goals. Thus, three of the most promising national energy strategies—outer continental shelf (OCS) oil and gas production,³ offshore nuclear development,⁴ and deepwater supertanker ports⁵—focus attention upon siting of energy-related facilities in the coastal zone, because the success of these activities depends upon accompanying onshore facilities.⁶ Indeed, failure to resolve the siting issue would block the development of any offshore energy activity. The magnitude of the problem is demonstrated by estimates that 22 percent of the energy production necessary for national self-sufficiency must come from increased domestic oil and gas production and 24 percent from nuclear energy.⁷ As will be

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1. The President, on January 30, 1975, in a letter to the President of the Senate noted that he was submitting a comprehensive legislative proposal entitled the Energy Independence Act of 1975, the ultimate purpose of which was not only to attain energy self-sufficiency but also to "allow our Nation to once again supply a significant share of the energy needs of the free world." Letter from the President of the United States to the President of the Senate, Jan. 30, 1975, in 121 CONG. REC. S1421 (daily ed. Feb. 5, 1975).

2. See FEDERAL ENERGY ADMINISTRATION (FEA), PROJECT INDEPENDENCE REPORT 405 (1974) [hereinafter cited as PROJECT INDEPENDENCE REPORT]. See note 22 *infra*.

3. See notes 9-19 *infra* & accompanying text.

4. See notes 25-27 *infra* & accompanying text.

5. See notes 20-24 *infra* & accompanying text.

6. See *Hearings on Oil and Gas Developments and Coastal Zone Management Before the National Ocean Policy Study of the Committee on Commerce*, 93d Cong., 2d Sess. (1974) [hereinafter cited as *Coastal Zone Management Hearings*]. See also STAFF OF THE SENATE COMM. ON COMMERCE, 93d Cong., 2d Sess., NORTH SEA OIL AND GAS: IMPACT ON DEVELOPMENT ON THE COASTAL ZONE (Comm. Print 1974) [hereinafter cited as NORTH SEA OIL].

7. D. RAY, THE NATION'S ENERGY FUTURE 7 (1973). See also note 9 *infra*.

shown, because the siting issue has been faced inadequately in current energy legislation, the most effective available solution to the problem lies in the system of state programs to be implemented through the Coastal Zone Management Act of 1972 (CZMA).⁸ Effective use of the Act, however, requires development of proper strategies to induce state action.

OFFSHORE ENERGY SOURCES AND THE SITING PROBLEM

Oil and gas exploration on the outer continental shelf, deepwater ports, and the development of offshore nuclear plants are necessary to the nation's energy future⁹ despite their inevitable impacts upon the coastal zone. Under Secretary of Interior John C. Whitaker testified before the House Appropriations Subcommittee on Interior and Related Agencies in 1974 that "maximum development of domestic petroleum resources is of major importance," and that "the period of approximately the next 15 years is particularly critical" in order

8. 16 U.S.C. §§ 1451-64 (Supp. II, 1972).

9. Since 1960 the United States has not been energy self-sufficient, but has been importing increasing amounts of oil and natural gas. In June 1973 former President Nixon directed the Chairman of the Atomic Energy Commission to undertake an immediate review of existing energy research and development activities and, in cooperation with the Energy Policy Office, to recommend by December 1, 1973, an integrated national energy program to cope with the deteriorating energy supply-demand ratio. Letter from Dr. Dixy Lee Ray to President Nixon, Dec. 1, 1973, in D. RAY, *supra* note 7. This directive was the first attempt to structure a coordinated, comprehensive national energy research and development program with the avowed goal of attaining national energy self-sufficiency. The resulting report recommended establishment of a research and development program beginning with the 1975 fiscal year. D. RAY, *supra* note 7, at 1, 7-33. The report stressed the need "to regain and maintain energy self-sufficiency" on the ground that "energy is the *sine qua non* of a modern society's ability to do the things it wants to do. Such goals as maintaining the standard of living for a growing population, national security, improved quality of life, increased affluence, and increased assistance to less developed societies can only be attained with increasingly large amounts of energy." *Id.* at 1-2. The United States, according to the report, has the resources and technology for energy self-sufficiency, *id.* at vii, but attainment of the goal will require accomplishment of five specified tasks. *Id.* at 7, 47-50. These five tasks are to conserve energy both by demand practices and by increasing the technical efficiency of conversion processes, to augment domestic oil and natural gas production, to increase use of coal, to expand the production of nuclear energy, and to promote the use of renewable energy sources (hydro, geothermal, solar), as well as fusion and central solar station power. *Id.* at 7.

The report noted, however, that even if all recommended actions were fully funded and implemented, the earliest date by which self-sufficiency could be expected would be 1985, although the recommended national energy research and development program could cut oil imports in half by 1980, reducing national importation needs by 6 million barrels per day. *Id.* at viii. Project Independence, encompassing the goals of this report, formally was initiated as a national policy in March 1974. PROJECT INDEPENDENCE REPORT, *supra* note 2, at i.

to "fill the gap" until advanced energy sources can be made operational.¹⁰ The Under Secretary emphasized three reasons to lessen dependence upon foreign energy supplies: the importance of a secure oil and natural gas supply to an independent foreign policy and to national security,¹¹ compelling economic pressures including the need to avoid the inflation that results when domestic goods must be exported to offset the potential trade imbalance produced by massive oil imports,¹² and the likelihood that domestic oil and gas production will be more economical than importation at current and foreseeable world market prices.¹³ The need for increased supply seems unavoidable because domestic consumption is expected to increase during the next 15 years, despite conservation measures¹⁴ and because the present dependence upon petroleum energy, rather than other forms, is likely to continue.¹⁵

10. Statement by John C. Whitaker, Under Secretary of the Interior, before the Appropriations Subcommittee on Interior and Related Agencies, Oct. 8, 1974, at 2-3.

11. *Id.* at 1.

12. *Id.*

13. *Id.* at 2. The Under Secretary estimated that oil derived from the outer continental shelf would cost "from \$1.50 to \$3.50 per barrel to produce, compared to about \$10.00 less any profits returned to this country, for imported oil." He gave no evidence to support what appears to be an unduly low estimate of domestic cost of production.

14. *Id.* at 3.

15. The 93d Congress enacted the Federal Nonnuclear Energy Research and Development Act of 1974, Pub. L. No. 93-577, 88 Stat. 1878, which provided for a commitment to develop nonnuclear energy technologies with the same degree of effort as that devoted to the Manhattan and Apollo projects and required the Energy Research and Development Administration (ERDA) to transmit to Congress by June 30, 1975, a comprehensive plan and detailed implementation program for energy research, development, and demonstration. *Id.* § 6(a). The effort to allocate appropriate research to nonnuclear and nonfossil-generated energy was expressed in the Solar Energy Research, Development, and Demonstration Act of 1974, Pub. L. No. 93-473, 88 Stat. 1431, and the Geothermal Energy Research, Development, and Demonstration Act of 1974, 30 U.S.C.A. §§ 1101-02, 1121-26, 1141-44, 1161-64, (Supp. 1975). ERDA is required under the Federal Nonnuclear Energy Research and Development Act to incorporate these solar and geothermal programs into ERDA's overall program. Pub. L. No. 93-577, § 3(b)(3), 88 Stat. 1878. See also Solar Heating and Cooling Demonstration Act of 1974, 42 U.S.C.A. §§ 2473, 5501-17 (Supp. 1975) (creating a joint housing and space administration program to develop and test heating and cooling systems powered by solar energy). Despite enactment of these measures, there appears to be no prospect that these nonnuclear, nonfossil energy sources will relieve any significant degree of dependence on oil and natural gas prior to 1985 at the earliest. According to Federal Energy Administration (FEA) data, the United States now relies on oil for 46 percent of its energy and on natural gas for 32 percent, while coal, which provides only 17 percent of the nation's energy, represents more than 95 percent of total domestic energy resources. The United States has more than 800 years of coal supply available at the current rate of consumption, compared to only approximately 10 years of proven oil and gas reserves. PROJECT INDEPENDENCE REPORT, *supra* note 2, at 17.

Because onshore production has peaked, the Interior Department has concluded that OCS production "offers the best prospects for substantial increases in domestic oil and gas production."¹⁶ Accordingly, the Department announced plans to lease 10 million acres of the outer continental shelf in 1975,¹⁷ and estimated that production would aggregate 10 to 15 billion barrels of undiscovered recoverable oil and 35 to 75 trillion cubic feet of natural gas, quantities that "could equal as much as 15% of the estimated U.S. oil consumption in 1985."¹⁸ On October 18, 1974, the Department made available a two-volume draft environmental impact statement prepared by the Bureau of Land Management regarding the overall OCS-leasing program.¹⁹ It is contemplated that further impact statements will be prepared for the opening of particular areas for leasing and the granting of specific leases.

The Deepwater Port Act of 1974²⁰ also raises the energy siting issue. This Act established a federal program to license ownership, construction, and maintenance of ports located outside the three-mile territorial limit²¹ to unload oil and liquified natural gas for transportation to onshore receiving facilities by pipeline or shallow-draft lighter.²² These ports are necessary to accommodate super-

16. Statement by John C. Whitaker, *supra* note 10, at 3. Federal Energy Administration data has indicated that domestic production is less than this testimony assumed. According to the FEA, "exploration for crude oil peaked in 1956; domestic crude oil production leveled off in 1970 and has been declining ever since. Since 1968, we have been consuming natural gas faster than we discover it." PROJECT INDEPENDENCE REPORT, *supra* note 2, at 17.

17. Statement by John C. Whitaker, *supra* note 10, at 6.

18. *Id.* at 11.

19. U.S. DEPT. OF THE INTERIOR, DRAFT ENVIRONMENTAL STATEMENT: PROPOSED INCREASE IN ACREAGE TO BE OFFERED FOR OIL AND GAS LEASING ON THE OUTER CONTINENTAL SHELF (1974). It must be noted that the amount of acreage required to be offered for exploration to lease 10 million acres for production will be significantly higher, perhaps as much as 20 million acres. *Id.* at 1. A variety of problems, however, apparently has caused the Department of the Interior to lower its OCS-leasing goals. See Comment, *The Rush for Offshore Oil and Gas: Where Things Stand on the Outer Continental Shelf*, 5 ENV. L. REP. 10026 (1975).

20. Pub. L. No. 93-627, 88 Stat. 2126.

21. See *United States v. Maine*, 95 S. Ct. 1155 (1975).

22. In November 1974 the FEA published its findings concerning the feasibility of various alternative strategies to achieve Project Independence. PROJECT INDEPENDENCE REPORT, *supra* note 2, at i. Perhaps the most striking feature of the FEA report was that the goal of total energy independence apparently had been revised substantially to recognize the possibility of long-term petroleum importation:

National energy independence means that the United States will reduce energy product imports to the lowest level deemed economically and socially acceptable. Depending on the time period, the level of domestic production and the

tankers which, although constituting only 10 percent of the bottoms in the world fleet, carry approximately 40 percent of the crude oil shipped in world commerce.²³ Deepwater ports represent the safest and most environmentally acceptable means of landing large quantities of oil and gas.²⁴ As does OCS production, however, deepwater ports require certain onshore facilities such as pipelines, storage tanks, refineries, and transportation.

Offshore nuclear energy plants,²⁵ clearly contemplated by the Energy Reorganization Act of 1974,²⁶ also depend upon the availability of onshore facilities. The specific onshore support necessary would depend upon the type of nuclear energy plant sited offshore,

stockpiles of stored petroleum, this may mean no imports, a small volume of imports from secure sources, or even a substantial volume of imports from relatively insecure sources.

Id. at 405. The National Academy of Science previously had criticized the Council on Environmental Quality (CEQ) for accepting "without analysis the advisability and practicality of Project Independence Most energy experts believe that such a program will entail immense economic disruptions and environmental costs and may not even be technically possible." COUNCIL ON ENVIRONMENTAL QUALITY, OCS OIL AND GAS—AN ENVIRONMENTAL ASSESSMENT 193 (1974) [hereinafter cited as OCS ENVIRONMENTAL ASSESSMENT].

23. Comment, *Environmental Legislation Passed by the 93rd Congress: A Review*, 5 ENV. L. REP. 10020, 10021 (1975). Supertankers have a minimum capacity of 200,000 tons and require 90 to 100 feet of water depth. Only two United States ports, Seattle and Long Beach, can accommodate such ships. *Id.* See also Comment, *Deep Water Ports: Energy Demands Versus Environmental Safeguards*, 3 ENV. L. REP. 10165 (1973).

24. Congress provided a variety of safeguards to minimize hazards that might result from oil spills and to mitigate the effects of any spill that might occur. Deepwater ports are designated "new sources" as defined in the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. § 1316(a)(2) (Supp. II, 1972), thereby requiring use of the best available technology. Deepwater Port Act of 1974, Pub. L. No. 93-627, § 3(10), 88 Stat. 2126. Environmental impact statements for each such port specifically are required, *id.* § 5(f), as well as a further environmental review pursuant to comprehensive criteria established by the Secretary of Transportation. *id.* § 6. The Secretary must specify detailed operational requirements, *id.* § 10(a)-(c). Oil-spill reporting and cleanup requirements, *id.* § 18, are based on those in the Federal Water Pollution Control Act, 33 U.S.C. § 1321 (Supp. II, 1972), and a liability fund patterned after the Trans-Alaska Liability Fund, (see Trans-Alaska Pipeline Authorization Act of 1974, 43 U.S.C.A. § 1651-55 (Supp. 1975)), is established to compensate damage from spills. Deepwater Port Act of 1974, Pub. L. No. 93-627, § 18(f), 88 Stat. 2126. The Act also provides for citizen suits, *id.* § 16, criminal as well as civil penalties, *id.* § 15(a), and broad rights of public access to information about deepwater ports and applications related thereto, *id.* § 14.

25. See Stadelman, *Floating Nuclear Plants, a Case in Point*, in STAFF OF THE SENATE COMM. ON COMMERCE, 93d CONG., 2D SESS., COASTAL ZONE MANAGEMENT, "THE COASTAL IMPERATIVE: DEVELOPING A NATIONAL PERSPECTIVE FOR COASTAL DECISION MAKING" 62 (Comm. Print 1974).

26. Pub. L. No. 93-438, § 207(a)(2), 88 Stat. 1233. It is quite possible that deep-sea mining, once adequate technology is available, will be similarly dependent upon facilities in the coastal zone.

and a variety of types have been considered, including fuel reprocessing plants, fuel fabrication plants, retrievable nuclear waste storage facilities, and uranium enrichment facilities.²⁷

FACILITY SITING—THE GAP IN THE NATIONAL ENERGY PROGRAM

Although Congress has studied the problem of energy facility siting extensively and considered several bills to provide an orderly regulatory process for planning and selecting energy facility sites and for developing construction criteria, no legislation yet has been enacted.²⁸ The various bills proposed have had a common objective of providing a regulatory forum and an orderly process, generally at the state level, for plant-siting issues. Though details have varied, these bills have sought to assure federal-state cooperation either by federal approval of state siting plans or by certification of compliance with federal guidelines from the state's governor.²⁹ Most of these efforts also recognized the need for participation in the planning process by utilities and industrial firms to determine their long-term needs for energy and industrial sites in order to provide an approved inventory of such sites well in advance of actual need.³⁰

With one exception, the spate of energy legislation enacted during 1974 made only oblique reference to the siting problem.³¹ The Federal Energy Administration Act made no provision for siting of new facilities, although certain language can be read to relate, albeit ineffectively, to siting.³² Nor were any siting provisions included in

27. See Pub. L. No. 93-498, § 207(a)(2), 88 Stat. 1233.

28. Four major facility-siting bills were introduced and studied in the 92d Congress: H.R. 11066, 92d Cong., 1st Sess. (1971) (Macdonald bill); H.R. 5277, 92d Cong., 1st Sess. (1971) (Administration bill); H.R. 13966, 92d Cong., 2d Sess. (1972) (Eckhardt-Helstoski bill); H.R. 15199, 92d Cong., 2d Sess. (1972) (Dingell-Moss bill). See *Hearings on H.R. 5277 et al. Before the Subcomm. on Communications and Power of the House Comm. on Interstate and Foreign Commerce*, 92d Cong., 1st Sess. (1971); Stone, *Power Siting: A Challenge to the Legal Process*, 36 ALBANY L. REV. 1, 19-20 (1971). Similarly, three principal bills were introduced in the Senate: S. 1684, 92d Cong., 1st Sess. (1971) (Administration bill); S. 1915, 92d Cong., 1st Sess. (1971) (Magnuson bill); S. 3631, 92d Cong., 2d Sess. (1972) (Hart bill). See also Smith, *Electricity and the Environment—The Generating Plant Siting Problem*, 26 BUS. LAWYER 169, 182-86 (1970) (siting bills before the 91st Congress).

29. See, e.g., H.R. 5277, § 5(d), 92d Cong., 1st Sess. (1971).

30. See, e.g., *id.* § 4.

31. The 93d Congress enacted 43 energy-related measures. Comment, *Environmental Legislation Passed by the 93rd Congress: A Review*, 5 ENV. L. REP. 10020, 10022 (1975).

32. Section 5(b)(3) directs the FEA to "develop effective arrangements for the participation of State and local governments in the resolution of energy problems . . ." 15 U.S.C.A. § 764(b)(3) (Supp. 1975). Section 20 requires the administrator, within 60 days after the

the Energy Supply and Environmental Coordination Act of 1974.³³ The Energy Reorganization Act of 1974³⁴ addressed the problem of nuclear siting, but it simply required preparation of a Nuclear Energy Center Site Survey³⁵ without providing any regulatory process or action-forcing measures to assure that sites would be selected, evaluated appropriately, and authorized for use.

The Energy Independence Act of 1975,³⁶ the President's proposal before the 94th Congress, addresses the siting problem.³⁷ This bill is intended to cope with the energy facility construction outlined in the President's 1975 State of the Union Message including, within the next 10 years, 200 major nuclear power plants, 150 major coal-fired power plants, 30 major new oil refineries, and 20 major new

effective date of the Act, to report to the Congress and to state governments on the manner in which he has organized the administration and within 120 days to delineate "the role that State, and Federal governments will or may perform in achieving the purposes of this [Act]" *Id.* § 779(a)(1)(B)(iii). Finally, section 20 provides for the submission of written comments by state governments concerning proposed FEA regulations or policies and FEA is directed to provide "relevant information" and "assistance" to states. *Id.* § 779.

33. *Id.* §§ 791-98.

34. Pub. L. No. 93-438, 88 Stat. 1233. The principal goal of the Act was to structure the national energy bureaucracy more effectively. The FEA had been created by the Federal Energy Administration Act of 1974, 15 U.S.C.A. §§ 761-86 (Supp. 1975), as the temporary institutional means to provide, among other goals, a short-term energy coordinator and an apparatus to help formulate a national energy policy. By the Energy Reorganization Act, the FEA's energy research and development authority was transferred to the Energy Research and Development Administration (ERDA), leaving as one of the FEA's chief remaining functions the collection of data and the direction of surveys to provide data necessary for energy policy decisionmaking. Pub. L. No. 93-438, § 104(g), 88 Stat. 1233. The Act abolished the Atomic Energy Commission (AEC) and assigned its developmental and promotional functions to the newly created ERDA. *Id.* § 104(a)-(c). The AEC regulatory functions were transferred to the newly created Nuclear Regulatory Commission. *Id.* § 201. Congress clearly intended that ERDA embrace all possible sources of energy in its research and development program and give no unwarranted priority to any particular energy source. *See id.* § 103(4); S. REP. No. 980, 93d Cong., 2d Sess. 20 (1974). *But see* note 15 *supra*.

35. Section 207 directs the newly created Nuclear Regulatory Commission to prepare a national survey which includes consideration of appropriate regions to locate and identify possible nuclear energy sites. The term "nuclear energy center site" is defined as "any site, including a site not restricted to land, large enough to support utility operations or other elements of the total nuclear fuel cycle, or both including, if appropriate, nuclear fuel processing facilities, nuclear fuel fabrication plants, retrievable nuclear waste storage facilities, and [uranium] enrichment facilities." Pub. L. No. 93-438, § 207, 88 Stat. 1233 (emphasis supplied). A report of the results of this survey is to be published and transmitted to Congress and the Council on Environmental Quality within one year of enactment, together with recommendations for necessary legislation. *Id.*

36. S. 594, 94th Cong., 1st Sess. (1975).

37. *See* 121 CONG. REC. S1424 (daily ed. Feb. 5, 1975) (fact sheet on the Energy Facilities Planning and Development Act of 1975).

synthetic fuel plants.³⁸ It posits the need for a national energy plan to help states and industry develop long-range energy facility planning and would cure the lack of any central mechanism to select and authorize sites. The proposal would fill the vacuum created by failure of the states to develop adequate plans, programs, and procedures to assure an adequate inventory of sites within acceptable time limits, by requiring a survey similar to the Nuclear Energy Center Site Survey,³⁹ but encompassing all forms of energy facility siting and requiring each state, within one year from issuance of a National Energy Site and Facility Report, to submit to the Federal Energy Administration (FEA) for approval a state Energy Facility Management Program.⁴⁰ This state program would include an expedited process for reviewing and approving energy facility siting applications, adequate consideration of national and regional energy needs, and procedures to assure finality to state regulatory decisions concerning applications to site, construct, or operate energy facilities. Significantly, the bill would authorize the FEA to promulgate an energy facility program meeting these requirements in the event any state fails to develop an acceptable program.⁴¹

Thus, although Congress has recognized the critical hiatus in energy facility siting, it has done little as yet to solve the siting problem, leaving its resolution largely to the localities for which installations are planned. This regulatory gap has led to several unsatisfactory approaches by the states. Some localities, desiring to attract industry at any cost, have required few, if any, environmental protections and have permitted severe environmental degradation to occur.⁴² Other jurisdictions have either precluded certain energy facilities altogether⁴³ or imposed a multiplicity of licensing and clear-

38. State of the Union Message by President Ford, Feb. 15, 1975, in 11 WEEKLY COMP. OF PRES. DOC. 45, 51 (1975).

39. See note 35 *supra* & accompanying text.

40. 121 CONG. REC. S1424 (daily ed. Feb. 5, 1975).

41. *Id.* at S1425. The Energy Independence Act of 1975, S. 594, 94th Cong., 1st Sess. (1975), appears unlikely to be enacted. The 93d Congress rejected general land use planning legislation largely because early versions of the legislation included sanctions against nonparticipating states. The Energy Independence Act goes far beyond sanctions by imposing a federally authored planning program on states or localities that do not cooperate or that fail to meet federal guidelines.

42. See Stone, *Power Siting: A Challenge to the Legal Process*, 36 ALBANY L. REV. 1, 5-8 (1971); Note, *Power Plant Siting—A Regulatory Crisis*, 22 DRAKE L. REV. 645, 651-52 (1973).

43. Delaware, for example, has banned from the coastal zone heavy industrial uses and offshore gas, liquid, or solid-bulk-product transfer facilities not in operation before 1971. DEL.

ance requirements⁴⁴ with consequent unjustified delay and costs that usually are passed on to the consumer as higher rates or prices.⁴⁵ If such unsatisfactory results are to be avoided, a means to develop adequate energy facility siting policy must be found.

CZMA—POTENTIAL FOR LOCAL PLANNING

At present no national or state legislation requires counties or municipalities to develop planning processes or to adopt zoning regulations.⁴⁶ Indeed, the only law presently in force that provides a possible statutory basis for such state and local planning, the Coastal Zone Management Act of 1972,⁴⁷ is a purely voluntary program. However, it is becoming increasingly clear that both Congress and the executive branch view this Act, absent the enactment of some other planning or siting legislation, as the primary means by which the onshore siting of energy-related support facilities for offshore activities will be achieved.⁴⁸

CODE ANN. tit. 7, § 7003 (1974). "Heavy industry" is defined in terms of industries having "the potential to pollute when equipment malfunctions or human error occurs"; oil refineries specifically are cited as an example of a heavy industry. *Id.* § 7002(e). See Legislative Note, *The Delaware Coastal Zone Act*, 21 BUFFALO L. REV. 481 (1972).

44. See Luce, *Power for Tomorrow: The Siting Dilemma*, 25 RECORD OF N.Y.C.B.A. 13, 19 (1970) (27 approvals from city, state, and federal agencies necessary to build fossil fuel plant); Whitney, *The Case for Creating a Special Environmental Court System*, 14 WM. & MARY L. REV. 473, 504 (1973).

45. See Miller, *A Needed Reform of the Organization and Regulation of the Interstate Electric Power Industry*, 38 FORDHAM L. REV. 635, 662 (1970).

46. NORTH SEA OIL, *supra* note 6, at 27.

47. 16 U.S.C. §§ 1451-64 (Supp. II, 1972).

48. See *Coastal Zone Management Hearings*, *supra* note 6, at 3 (statement of Senator Hollings):

[O]ffshore impact of Outer Continental Shelf development will necessitate the onshore growth of support facilities such as petrochemical industries, refineries and tank farms . . . This major development will continue to spread unchecked in our coastal zones until Federal, State and local officials come face-to-face with this problem. The future of the coastal zone will depend upon several factors: (a) maintaining economic stability with increased employment opportunities; (b) regulating air and water pollution with Federal/State laws; (c) preserving the aesthetic beauty of our coastal zone and its waters; and (d) regulating rapid industrial, residential and commercial development of lands on the coastal zone. Supporters of coastal zone protection realize the dire need to recognize future land patterns of our shorelines. The Coastal Zone Management Act of 1972 provides the mechanism to do this.

See also Statement by Robert W. Knecht, Assistant Administrator for Coastal Zone Management, National Oceanic and Atmospheric Administration (NOAA), Department of Commerce, before Department of Interior Hearings, Feb. 12, 1975, at 3-4; Statement by John C. Whitaker, *supra* note 10, at 6.

Thus the issue becomes whether the Coastal Zone Management Act, as it is being implemented by the various coastal states, can fulfill these expectations. Given the likelihood that key onshore siting problems will be resolved in the framework of coastal zone planning under this Act, it is essential to determine whether the measure is adequate to resolve all necessary questions or whether amendments will be necessary.⁴⁹ More specifically, it must be determined whether this Act contains adequate action-forcing or action-inducing provisions to assure a timely and sufficient planning response to fill the critical siting gap.

A threshold problem is presented by the uncertainty of an adequate state response to the voluntary program of the Coastal Zone Management Act. As of mid-February 1975, 31 of the 34 coastal states and territories had begun coastal zone planning efforts.⁵⁰ Inasmuch as the program is not mandatory, the voluntary response is encouraging; realism, however, compels recognition that, until many of the difficult decisions requiring possibly unpopular state legislation are made, it is premature to conclude that a meaningful number of states and territories will produce acceptable, effective final plans.

Moreover, federal standards are required to guide state energy facility siting programs. The sole provision referring directly to the siting problem in the Act is section 306(c), which provides: "Prior to granting approval of a management program submitted by a coastal state, the Secretary [of Commerce] shall find that . . . (8) The management program provides for adequate consideration of the national interest involved in the siting of facilities necessary to meet requirements which are other than local in nature."⁵¹ This language is a paradigm of political compromise, appearing to say much by using terms like "national interest," while saying suffi-

49. The environmental impact statement process mandated by section 102(2)(C) of the National Environmental Policy Act of 1969, 42 U.S.C. § 4332(2)(C) (1970), is another existing legal tool for assuring adequate consideration of environmental factors. "While awaiting more fundamental organizational changes, we see an opportunity to use the environmental impact statement process as an interim means for achieving greater coordination in planning and more carefully considered policies." *Coastal Zone Management Hearings*, *supra* note 6, at 133 (testimony of Dr. Irvin L. White). Department of Interior draft environmental statements have been criticized severely for glossing over environmental and socio-economic impacts of outer continental shelf development. See Statement by Robert W. Knecht, *supra* note 48, at 2-3.

50. Statement by Robert W. Knecht, *supra* note 48, at 4.

51. 16 U.S.C. § 1455(c) (Supp. II, 1972).

ciently little that proponents of local rights are placated. What, for example, did Congress intend the Secretary to do if a state complies with the requirement for "consideration" of various siting procedures by listing an impressive series of social, economic, and environmental analyses, but concludes that state enabling legislation is politically infeasible or against the local public interest? If the Secretary declines to approve the state's plan because it failed to provide workable siting procedures, not only would he be on uncertain legal ground, but also the state simply could withdraw from further participation in the program.

In short, the Act lacks action-forcing language. It fails to require the enactment of siting procedures as a condition precedent to approval; even if such a requirement were present, circumvention still would be possible by a state's election not to participate in the coastal zone management program. Nonetheless, the Act as written is neither worthless nor necessarily ineffectual. The section 306(c)(8) requirement of "adequate consideration" of enactment of siting procedures identifies a desired regulatory or planning goal, a state or local procedure for siting facilities that are in the national interest. At a minimum, the Act sets the stage and creates a dialogue in which the Office of Coastal Zone Management can devise action-inducing strategies.⁵²

A final critical problem is presented by the need to implement coastal zone management plans within acceptable time limits. Present heavy dependence upon imported oil and gas could become critical to national security should widespread war erupt in the Middle East inasmuch as strikes at Arab oil fields to deprive the Arab bloc of its most effective weapon would not be out of the realm of possibility and the use of oil embargoes is even more likely. Apart from these cataclysmic possibilities, the dual constraints of inflation and an unfavorable balance of trade dictate immediate implementation of effective strategies to lessen substantially the dependence upon foreign oil. However long the period until energy sources become adequate for national energy self-sufficiency, the United States cannot afford to plod ineffectively along content with the hope that technological ingenuity one day will solve the energy crisis.

The nation is confronted with the need to proceed simultaneously with the development of offshore energy facilities while implement-

52. See notes 56-71 *infra* & accompanying text.

ing the planning processes necessary to mitigate environmental and socio-economic impacts in the coastal zone and adjacent ocean areas. In this connection, the Assistant Administrator for Coastal Zone Management has recognized that the long lead time necessary to complete even the exploratory phase of offshore oil and gas development will necessitate proceeding with finalization of state planning efforts contemporaneously with outer continental shelf exploration activity.⁵³ In fact, expeditious authorization of offshore development can provide information essential to the formulation of effective coastal zone planning. Thus, the Office of Coastal Zone Management supports concurrent outer continental shelf exploration and coastal zone planning efforts provided that planning for the exploration phase is coordinated with affected coastal state and local governments, that information derived from the exploration is shared promptly and completely with the state to facilitate utilization of the data in the planning process, and that effective safeguards are imposed to avoid environmental damage.⁵⁴ Coordination of planning and exploration under appropriate environmental safeguards clearly is essential if unwarranted delay in offshore development is to be avoided.⁵⁵

53. "[W]e do not see why a basic conflict should exist between the ongoing efforts of the states to prepare sound coastal zone management programs and the desire to expeditiously develop OCS oil and gas resources. It should be possible for state coastal zone management programs to meet their basic June 1977 target dates before the first field development plans for frontier areas are submitted for approval to the Department of the Interior." Statement by Robert W. Knecht, *supra* note 48, at 4.

54. *Id.* at 5. Under Secretary Whitaker testified that the Department of the Interior planned to conduct the OCS development in close coordination with the OCS Research Management Advisory Board which was established in March 1974 to advise the Department on environmental matters. This Board has members from all coastal states and such federal agencies as the National Oceanic and Atmospheric Administration and the Environmental Protection Agency. Moreover, the Department of the Interior stated its intention not only to impose adequate environmental safeguards, but also to activate funding mechanisms to finance baseline environmental surveys, environmental monitoring, and compensation for unavoidable impacts. Finally, the Department indicated that it "will eliminate from consideration for sale at this time any tract—or even entire areas—where it is found that technology will not be available to cope with the environmental problems." Statement by John C. Whitaker, *supra* note 10, at 10. Access to information derived from OCS exploration can be achieved through a modification of the existing leasing system by reducing the cost of leasing tracts for exploration in return for disclosure of information. See *Coastal Zone Management Hearings*, *supra* note 6, at 127.

55. Proposals such as S. 81, 94th Cong., 1st Sess. (1975) (providing for a three-year delay in OCS leasing if a coastal state governor so elects), are clearly unnecessary and obstructive.

PUBLIC ACCEPTANCE OF FACILITY SITING PROCEDURES

It is no mere accident that there is no national or state legislation requiring counties or municipalities to develop planning processes that provide regulatory procedures for siting of energy-related or industrial facilities. This vacuum exists because the federal government and the various state governments regarded siting decisions as intrinsically local matters, until recent energy imperatives forced reconsideration of siting issues.⁵⁶ At most, the Coastal Zone Management Act identifies an adequate siting procedure as one of the state-level goals that must be given "adequate consideration," and provides a format in which action-inducing, as distinguished from action-forcing, strategies can be undertaken.⁵⁷

One critical element of successful implementation of a facilities-siting program is identification of all impacts and a full explanation of the means to avoid, mitigate, or compensate for such impacts. Any combination of inducements, to allay local fears and opposition, must address the basic reasons for fear and distrust. Local decisionmakers initially must be convinced and be armed with persuasive data to convince their constituencies that siting of energy facilities can be achieved not only without unacceptable impacts, but in a way that produces significant benefits to the locality. To establish this proposition convincingly, it first is necessary to disseminate at the earliest possible moment reliable public information concerning key issues of local concern and to provide for early and continuing public participation.⁵⁸

56. A referendum by citizens of Leonardtown, Md., to prohibit the building of a new refinery on the Potomac River was upheld by the local Maryland circuit court. *Commissioners of St. Mary's County v. Steuart Petroleum Co.*, Equity No. A-5294 (Cir. Ct. Md., Dec. 10, 1974). Although section 306(e)(2) of the Coastal Zone Management Act, 16 U.S.C. § 1455(e)(2) (Supp. II, 1972), requires state plans to provide "for a method of assuring that local land and water use regulations within the coastal zone do not unreasonably restrict or exclude land and water uses of regional benefit," states still are free to withdraw from the coastal zone management program if local political pressure precludes compliance.

57. The states' performance with respect to solving the siting problem in the context of coastal zone planning is not encouraging. Of those states or territories that even mention energy facility siting in the management programs submitted pursuant to section 305 of the Coastal Zone Management Act, 16 U.S.C. § 1454 (Supp. II, 1972), (California, Connecticut, Hawaii, Maine, New Hampshire, New York, Rhode Island, and Texas), only New Hampshire specifically addresses the location of a port, an oil refinery, or a nuclear plant as a problem to be resolved by state planning. U.S. DEP'T OF COMMERCE, *STATE COASTAL ZONE MANAGEMENT ACTIVITIES 1974*, at 66.

58. *NORTH SEA OIL*, *supra* note 6, at 3. The report also noted: "Adequate lead times

Further, state and local governments must be given an opportunity to apply this information to the planning process. Based upon the experience in Scotland in connection with North Sea oil and gas development, the findings of a congressional ocean policy study stressed federal responsibility to inform and prepare state and local governments regarding the onshore implications of offshore development. The study found: "Because of the intimate tie between offshore oil and gas extraction and necessary coastal support facilities, the Federal government should examine methods of incorporating the views and interests of affected coastal States into the planning process on offshore development State and local governments should be permitted authority to play a significant role in the decisionmaking process on which areas adjacent to their coasts will be opened for oil and gas development and to express their own terms in the leasing agreements."⁵⁹

As important as the siting issue is, it must be recognized that successful resolution of that issue can occur only if state and local governments become convinced that the overall consequences to the onshore area will be acceptable. Thus, resolution must occur as part of an effective coastal zone program. For this reason, so-called action-forcing strategies fail to take account of the fact that the siting issue cannot be resolved alone, but must be an organic, compatible element in an overall planning program designed to cope with all of the onshore impacts. Given sufficiently early and adequate public information and participation procedures, there appear to be three substantive areas which, if properly addressed, are vital to enlisting public support for siting of facilities and other alterations in the community.

First, there must be complete identification and disclosure of the various impacts likely to result from the outer continental shelf oil and gas program, from deepwater ports, and from offshore nuclear parks. Present experience with onshore repercussions suggests five dimensions of impact: threshold change in the socio-economic structure, general environmental consequences, oil spills, economic development, and termination effects.⁶⁰

between the planning and implementation stages are essential to the appropriate mechanisms to deal with onshore impacts." *Id.*

59. *Id.*

60. Under existing law the identification and description of these impacts and the provision for mitigating or avoiding them is entrusted to the so-called "lead agency" charged with

The effect on the infrastructure of existing coastal communities that are called upon to provide housing, roads, schools, churches, sanitary and health facilities, and other basic services for a large additional population is particularly dramatic where the onshore area, as in the case of Scotland, Alaska, parts of New England, and the Carolinas, is populated sparsely, and relatively small communities must accommodate greatly increased populations.⁶¹ These threshold impacts manifest themselves years before offshore activity begins; accordingly, planning and tools, including adequate funding, to cope with these impacts must be operative in time to deal with the earlier developments. Any major offshore construction necessitates significant prior onshore preparation, triggering changes in the socio-economic infrastructure, these impacts varying as successive stages of offshore work are completed.

Paradoxically, because many environmental impacts are so visible and so widely recognized, general environmental impacts well may pose fewer difficulties than the more subtle socio-economic problems. Much is known about preventive environmental planning based upon the substantial body of environmental data developed over the past decade or more. Experience derived from Scotland, the Central Gulf Coast, and Southern California can provide a foundation for future strategies.⁶² Moreover, because of important strides in technology, production of outer continental shelf oil and gas can now be conducted with far greater security than was possible even five years ago.

The likelihood of oil spills in connection with either OCS production or the operation of deepwater ports not only has been reduced significantly by improved technology and stricter operating procedures, but also cleanup techniques have been improved greatly and more effective compensation techniques developed, including, for

responsibility for preparation of the environmental impact statement under the National Environmental Policy Act of 1969, 42 U.S.C. § 4332(c) (1970). The Department of the Interior has responsibility concerning outer continental shelf oil and gas leasing, 43 U.S.C. § 1334 (1970); the Department of Transportation for deepwater ports, Deepwater Port Act of 1974, Pub. L. No. 93-627, § 4(b), 88 Stat. 2126; and presumably the Nuclear Regulatory Commission concerning offshore nuclear parks, see Energy Reorganization Act of 1974, Pub. L. No. 93-438, §§ 201-09, 88 Stat. 1233. The Office of Coastal Zone Management has only the role of a commentary agency with respect to these environmental statements. See 42 U.S.C. § 4332(c) (1970).

61. See NORTH SEA OIL, *supra* note 6, at 1, 16-17.

62. See OCS ENVIRONMENTAL ASSESSMENT, *supra* note 22, at 2.

example, those in the Deepwater Port Act.⁶³

The effects on rival coastal zone economic activities probably are as complex as the socio-economic impacts and pose difficult questions of priorities and trade-offs. These impacts are diverse and may be subtle. Although such interests as fisheries, recreation, and tourism, as well as the general aesthetics of the coastal region, must be protected, this protection must go far beyond shielding, for example, the fishing industry from oil spills and the peculiarly scenic and fragile portions of the coast from disfigurement by unsightly refineries and tank farms. The advent of extensive heavy construction activity and petroleum production radically affects labor conditions in existing industries. Many workers may leave fishing or other trades for higher-paying jobs related to the offshore projects, thereby creating serious labor shortages and adversely affecting productivity.

In the case of outer continental shelf activity, when the oil and gas reserves become depleted, and likewise if a deepwater port shuts down, there will be post-depletion or phasing-out impacts that must be mitigated.⁶⁴ These effects also are very complex. It will not be sufficient, for example, simply to rely upon creation of a fund to be available for phasing out coastal zone activities; it is no solution simply to have funds available for welfare payments to displaced workers. Rather, complex long-term strategies of economic diversification must be worked out to permit orderly transition when offshore activities wind down.

In light of all these types of effects from offshore activities, it is evident that a second major inducement for local cooperation must be a grant process using offshore royalties to fund the many activities necessary to minimize, and compensate for, unavoidable adverse impacts.⁶⁵ Thus, although the Supreme Court has ruled that

63. See Deepwater Port Act of 1974, Pub. L. No. 93-627, §§ 15-18, 88 Stat. 2126. See note 24 *supra*.

64. Outer continental shelf potential in many areas, while of critical immediate significance, is limited. The letter of transmittal accompanying the report to the President on OCS oil and gas by the Council on Environmental Quality noted: "Potentially discoverable economically recoverable oil has been estimated from United States Geological Survey data to be 10 to 20 billion barrels in the Atlantic OCS and 3 to 6 billion barrels in the Gulf of Alaska. The figures for gas are 55 to 110 trillion cubic feet in the Atlantic and 15 to 30 trillion cubic feet in the Gulf of Alaska. Last year, from all sources, the United States consumed about 7 billion barrels of oil and about 24 trillion cubic feet of gas." OCS ENVIRONMENTAL ASSESSMENT, *supra* note 22, at iii.

65. See 16 U.S.C. §§ 1454-55 (Supp. II, 1972). Under the Coastal Zone Management Act,

states have no proprietary interest in resources beyond the three-mile limit,⁶⁶ as a practical matter a substantial portion of the revenues derived from these offshore activities must be devoted to states and localities to fund measures necessary to accommodate related coastal zone activities on a sound environmental and socio-economic basis. Though reference was made to various existing funding mechanisms by the Under Secretary of the Department of the Interior in congressional hearings,⁶⁷ these mechanisms were not specified, and it is doubtful that existing mechanisms were authorized with due regard to the particular goals and problems of offshore energy development. It seems fairly clear that specific legislation will be required to structure fully adequate funding and grant arrangements to meet coastal zone requirements.

Finally, the so-called "federal consistency" provisions⁶⁸ well may provide one of the most psychologically important inducements to state and local cooperation by helping to allay local misgivings about loss of decisionmaking power in the coastal zone. These provisions require that all federally supported activities and development projects in the coastal zone be conducted in a manner consistent with the approved state management program,⁶⁹ and that federal licenses and permits for coastal zone activity be issued only upon concurrence by the state.⁷⁰ Perhaps the most deep-rooted impediment to cooperation in the siting of energy-related facilities and participation in the coastal zone planning program arises from the fear that local interests will suffer at the hands of dominant federal interests. If correctly presented, the "federal consistency" provisions of the Coastal Zone Management Act offer convincing

management development program grants are available to states for up to three years. *Id.* § 1454. Following approval of the management program, a state becomes eligible for administrative grants based "on rules and regulations which shall take into account the extent and nature of the shoreline and area covered by the plan, population of the area, and other relevant factors" *Id.* § 1455(b). No provision is made for distribution of revenue from offshore energy facilities.

66. *United States v. Maine*, 95 S. Ct. 1155 (1975).

67. Statement by John C. Whitaker, *supra* note 10, at 10-11.

68. 16 U.S.C. § 1456(c) (Supp. II, 1972).

69. *Id.* § 1456(c)(1)-(2).

70. *Id.* § 1456(c)(3). The applicant must certify that the proposed activity complies with the state management program. If state concurrence is not obtained, the Secretary of the Interior, upon his own initiative or upon appeal, may find the activity to be consistent with the objectives of the Coastal Zone Management Act or necessary in the interest of national security. *Id.*

reassurance that local interests can not only be adequately protected, but states, upon approval of their coastal zone plan, can assure that subsequent federal decisionmaking is consistent with the approved state plan.⁷¹

CONCLUSION

There is no basis to assume that state and local governments will not cooperate in formulating regulatory procedures to make possible orderly and expeditious siting of energy-related facilities as part of an overall coastal plan. Through adequate public information and public participation, present misgivings about loss of local control of land use decisionmaking can be allayed, although to do so will require a convincing and comprehensive presentation of the strategies and funding that will be brought to bear to avoid all unnecessary effects upon the coastal zone and to mitigate and compensate for unavoidable impacts. Most importantly, state and local governments must be convinced that federal activity in the coastal zone will be consistent with the state plan. Such objectives can be achieved within the scope of the Coastal Zone Management Act. There is now widespread public recognition that energy and the facilities needed to obtain adequate energy resources are in the national interest. Given the appropriate federal assurances to local and state governments, sufficient environmental protections, and adequate funding, it can be expected that the siting problem, the critical hiatus in the national energy program, will be resolved in an orderly, voluntary fashion.

71. Section 307(b) provides that the Secretary of Commerce shall not approve a state management program unless the views of federal agencies principally affected by the program have been considered adequately. *Id.* § 1456(b). Once a plan is adopted, however, section 307(c)(1) requires each federal agency conducting or supporting activities directly affecting the coastal zone to do so to the maximum extent practicable consistently with the approved state plan, and section 307(c)(2) requires any federal agency undertaking any development on the coastal zone of a state to ensure that the project is, to the maximum extent practicable, consistent with the approved plan. *Id.* §§ 1456(c)(1)-(2). Similarly, section 307(c)(3) provides that with respect to any federal license or permit to conduct an activity affecting land or water uses in the coastal zone, such activity must comply with the state plan and be conducted in a manner consistent with the program. *Id.* § 1456(c)(3). No such permit or license may issue unless the state concurs or waives its interest through inaction. *Id.*