

ENERGY FACILITY SITING  
IN COASTAL AREAS

PREPARED AT THE REQUEST OF  
HON. WARREN G. MAGNUSON, *Chairman*,  
COMMITTEE ON COMMERCE

AND

HON. ERNEST F. HOLLINGS, *Chairman*  
NATIONAL OCEAN POLICY STUDY

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## LETTER OF TRANSMITTAL

U.S. SENATE,  
COMMITTEE ON COMMERCE,  
December 19, 1975.

DEAR COLLEAGUE: We are pleased to forward another in a series of reports for use of the National Ocean Policy Study and the Senate on issues relating to ocean policy. The subject of this report, energy facility siting in coastal areas, is an important and complex matter that is now confronting our Nation as an integral part of the domestic energy supply crisis.

The siting of energy facilities presents its greatest challenge in the coastal zone where urban congestion is intense, while biological and recreational production is high. The Coastal Zone Management Program is a response to the interplay of growth pressures that have converged on this area. The Coastal Zone Management Act of 1972 was signed into law, however, prior to a general awareness of our mounting energy problems. Another important law affecting the coastal area, the Outer Continental Shelf Lands Act of 1953, was passed before there was a general awareness of the need for comprehensive public management of coastal resources. A major issue now before the Federal Government is how to modify these two laws in light of our present national situation. The Senate has dealt with this issue by passage of S. 586 and S. 521.

This report, which is particularly germane to S. 586, comes at a time when companion legislation (H.R. 3981) is under consideration in the House. It also comes as Federal waters off the coast of Southern California are being leased by the Interior Department for oil and gas production—marking the beginning of Interior's controversial accelerated leasing program which will include Alaska and areas on the east coast.

The report surveys the present situation and provides useful information for those currently considering the issues. The general subject of energy facility siting has a much wider application, however, and must be considered a significant aspect of any future land use legislation as well.

We wish to emphasize that the conclusions which might be inferred from this report and which may prove to be controversial have neither been approved, disapproved, nor considered by the Senate Committee on Commerce or the National Ocean Policy Study.

WARREN G. MAGNUSON,  
*Chairman, Committee on Commerce.*

ERNEST F. HOLLINGS,  
*Chairman, National Ocean Policy Study.*



## ACKNOWLEDGMENT

Sections I-IV and VIII of this report were prepared by W. Wendell Fletcher, analyst in Environmental and Natural Resources Policy, at the Congressional Research Service. Sections V-VII are the work of the National Oceans Policy Study staff and Thomas E. Kane, analyst in marine science at the Ocean and Coastal Resources project of the Congressional Research Service. Mr. Fletcher and the NOPS staff collaborated on the Summary. Appendix 1 is excerpted from a Congressional Research Service report, "Energy Facility Siting," by W. Wendell Fletcher. The paper reproduced in Appendix 5 was written by Gerald Sauer and Jeffrey Roughgarden, Congressional Fellows from Stanford University.



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## SUMMARY

### ENERGY DEVELOPMENT AND THE COASTAL ZONE

The coastal zone<sup>1</sup> contains a disproportionately large share of both the Nation's energy facilities and population. The number of coastal energy facilities is likely to increase dramatically in the next decade or so if current Federal plans developed in response to the energy crisis are realized to any substantial degree.

These plans call for accelerated development of Outer Continental Shelf oil and gas resources; opening of major new deepwater ports; and construction of a large number of nuclear and fossil-fueled powerplants, oil refineries, liquefied natural gas facilities, and synthetic fuel plants. Such facilities, and the growth they would inevitably stimulate, could have major adverse impacts on coastal natural systems and resources, on coastal recreation and fishing industries, and on the quality of life in coastal areas, unless a major effort is made to anticipate and ameliorate the impacts.

The Federal energy development effort has already led to major conflicts with coastal States and local governments. Since States and localities, not the Federal Government, control land use in this country,<sup>2</sup> they have a great deal of bargaining power. Federal energy planners, on the other hand, have contended that the national interest requires major new energy development in coastal areas, and have proposed greater Federal control over energy related land use decisions in order to insure that Federal objectives are met. Two major issues surrounding energy facility siting in the coastal zone are: (1) How best to resolve conflicts that arise between Federal, State and local interests; and (2) How to promote a careful approach to siting energy facilities that balances environmental, social, and economic considerations with energy supply objectives.

The problems associated with siting of new energy facilities in coastal areas are compounded by the fact that coastal regions are already heavily urbanized.<sup>3</sup>

The seven largest metropolitan areas of the United States are on the coast or the Great Lakes shore.

<sup>1</sup> As used in this report, coastal zone means coastal waters (including the Great Lakes) and adjacent shorelands which are strongly influenced by each other. This is essentially the definition of the coastal zone that is given in the Coastal Zone Management Act of 1972 (Public Law 92-583). Under this act, actual delineation of coastal zone boundaries is left to individual ocean and Great Lakes fronting States. Two other terms, coastal regions and coastal areas, will be used in this report. These terms are more general and may encompass a larger area than the coastal zone itself.

<sup>2</sup> The Tenth Amendment of the U.S. Constitution reserves the States those powers not specifically conferred to the Federal Government. This has generally been interpreted to give State Governments or State-created local governments the authority to regulate land use, including such specific aspects of land use as the siting of energy facilities. Although Federal agencies may reject applications for energy facilities that do not meet Federal requirements, no Federal agency presently has authority to override the denial of a proposed facility by a State Government.

<sup>3</sup> See report of the Senate Commerce Committee on S. 586, the Coastal Zone Management Act Amendments of 1975 (S. Rept. No. 94-277), July 11, 1975, p. 4.

- About one-third of the U.S. population lives in coastal counties.<sup>4</sup>
- It has been estimated that as many as 200 million Americans will live in coastal areas by the year 2000, or about 80 percent of the 255 million population that the Bureau of Census predicts for that year.
- The Interior Department estimates that housing development will become the leading cause of loss of estuarine areas.
- This means that competition for land in coastal areas, already the most intense in the Nation, will escalate dramatically in the future.
- Presently, 40 percent of the Nation's industrial complexes are in coastal areas.
- Sixty percent of U.S. petroleum refining capacity is concentrated in four coastal States—Texas, Louisiana, California, and New Jersey—mostly on or near the coast.

The relatively low cost of bulk water transportation and the proximity of markets are the most likely explanations for this industrial concentration:

Much of the anticipated increase in electric power generating capacity will be in coastal areas.

—In 1972, 40 percent of the newly installed electricity capacity was located in the coastal zone.

Both the increasing concentration of population in coastal counties and the shift toward nuclear plants anticipated because of the higher price of oil could substantially increase this percentage.

#### OUTER CONTINENTAL SHELF LEASING ACTIVITIES

For coastal States, the most controversial aspect of Federal efforts for energy development concerns leasing of Outer Continental Shelf (OCS) lands for oil and gas exploration and development. As part of their effort to achieve greater independence from foreign oil supplies, both the Ford and Nixon administrations have proposed a great acceleration of leasing on Outer Continental Shelf lands. These lands, extending from the territorial sea boundary of the States to the edge of the Continental Shelf, are under the jurisdiction of the Interior Department's Bureau of Land Management.

At issue is the question of whether such accelerated OCS leasing can be accomplished without unacceptable environmental, economic, and social disruption of the adjacent coastal States. Major OCS development not only has the potential for increased water pollution, but also could generate substantial onshore support development, and secondary residential and commercial development.

The Interior Department's draft environmental impact statement on its OCS leasing program estimated that as many as 140 onshore energy-related facilities and 200 pipelines (including gathering pipe-

<sup>4</sup> By 1971, 53 percent of the U.S. population lived within 50 miles of the coast. About 70 percent live within a day's drive of the oceans or Great Lakes. Source: Bureau of Census.

lines) could be necessary as a result of the leasing program,<sup>5</sup> but its final impact statement avoided such specifics.

Another question about the OCS program concerns its timing. The Department now anticipates that its accelerated leasing program will involve six lease sales in 1976 and each year thereafter, and that lease sales will be held in all "frontier" or unexplored OCS areas by the end of 1978.<sup>6</sup> Originally, the Department had stated its intention to lease 10 million acres in 1975 alone—an area equivalent to all OCS lands leased since 1954 when the program began. The new lease schedule was proposed after the 10-million-acre schedule aroused a great deal of controversy.<sup>7</sup>

The OCS program comes at a time when all ocean-fronting States are still in the process of developing land and water programs under the Coastal Zone Management (CZM) Act of 1972.<sup>8</sup> This act requires Federal actions affecting the coastal zone to be consistent with a State coastal program once it is approved by the Commerce Department. Because the Commerce Department is not slated to review the programs until 1976 at the earliest, nearly all Atlantic and Pacific coastal States have argued that the leasing program should be postponed until their coastal programs are approved, and that they should be given greater assistance in developing the additional planning tools felt necessary to cope with the impact of the leasing program. In addition, coastal States want adequate time after the discovery of OCS oil to carry out planning for onshore impacts. Only then, the States argue, can they predict accurately the identity, number, and location of onshore support facilities. This would require a change in the present OCS system to allow a pause between exploration and development.<sup>9</sup>

At present the most direct means coastal States have of delaying OCS development considered to be inimical to their interests is through litigation under the National Environmental Policy Act. The adequacy of the Department of Interior's environmental impact statements has already been questioned in court.<sup>10</sup> In particular, with only speculative information available on the amount of recoverable OCS oil, impact statements virtually never convey a clear picture of what the impacts will be.

<sup>5</sup> U.S. Department of Interior, "Draft Environmental Impact Statement on Proposed Increase in Acreage To Be Offered for Oil and Gas Leasing on the Outer Continental Shelf" (DES 74-90), October 18, 1974. Vol. 2, p. 322. The final impact statement avoided such specific predictions. Although conceding that the accelerated leasing program will necessitate new onshore facilities, the statement gives no specific indication of the number of facilities or acreage involved, but concludes that an unknown amount of land near each OCS area will have to be committed to this purpose. See Final Environmental Impact Statement (FES-75).

<sup>6</sup> Department of Interior, Proposed OCS Planning Schedule, June 1975.

<sup>7</sup> See "Analysis of the Department of Interior's Proposed Acceleration of Development of Oil and Gas on the Outer Continental Shelf," a March 1975 staff report of the National Ocean Policy Study, for a discussion of some of the issues involved.

<sup>8</sup> Public Law 92-538. The program established by the CZM Act is discussed in section V.

<sup>9</sup> S. 521, which passed the Senate in July 1975, would make this change. A companion bill, H.R. 6218, is before the House Special Ad Hoc Committee on the Outer Continental Shelf.

<sup>10</sup> Presently contested is the Interior Department schedule for accepting nominations of off-shore leases. Along the California coast, the Department accepted nominations prior to the final publication of its programmatic environmental impact statement under the National Environmental Policy Act of 1969. (NEPA) (42 U.S.C. 4321 et seq. 1970).

Coastal States and municipalities do, however, have jurisdiction over the siting of any OCS-related facilities that are onshore or in waters within the 3-mile territorial sea. This gives them considerable indirect leverage over OCS leasing decisions. Not allowing OCS crude to be banded adjacent to where it is produced would probably delay production and increase its costs.

#### OTHER ENERGY DEVELOPMENT ACTIVITIES

There are other aspects of energy development programs that could greatly affect the coastal zone. President Ford, in his 1975 energy message to Congress,<sup>11</sup> envisioned the siting or completion of 200 nuclear powerplants; 150 new coal-fired powerplants; 30 major new oil refineries and 20 synthetic fuel plants by 1985. For a variety of reasons, a substantial proportion of these facilities would have to be located in coastal areas.

Presently pending before Federal regulatory agencies are seven proposals for construction and operation of major liquefied natural gas (LNG) storage and regasification facilities designed to handle the 1,500-fold increase in LNG imports that the Federal Power Commission (FPC) has predicted for the 1973-80 period.<sup>12</sup> With passage of the Deepwater Ports Act of 1974,<sup>13</sup> which for the first time established a Federal licensing procedure for construction of deepwater ports beyond the territorial sea limits of the States, two or three major offshore ports capable of accommodating supertankers may well be constructed off the gulf States, and similar ports may be built off the Atlantic States. Also, the Nuclear Regulatory Commission has begun preliminary licensing consideration of floating nuclear powerplants which would be located in coastal waters.

All such facilities would, of course, need ancillary facilities—pipelines, storage depots, transmission lines, for example—to support their operations. They would stimulate substantial secondary development, including new petrochemical complexes; roads, highways and other transportation facilities; and residential or commercial development, and would require increased provision of public services to support workers and new population attracted to the area by the projects.

#### SOCIOECONOMIC ISSUES

Coastal States have expressed concern that energy development—particularly OCS related energy development—may result in a net financial loss to State and local governments under certain circumstances. Major new energy development may attract a sudden influx of new population to an area both for the construction and operation of new energy facilities.

During the construction phase a boom and bust situation can arise—new public investments may be required for workers who will leave the area before tax revenues have fully covered the new investment costs.

<sup>11</sup> The President's Energy Message to Congress, January 15, 1975.

<sup>12</sup> Actual increases in LNG imports thus far have lagged far behind the FPC projections. The Wall Street Journal (July 25, 1975) attributed these lags to steep escalation of LNG prices by exporting nations, technical and financial problems, LNG safety issues; and regulatory snags.

<sup>13</sup> Public Law 93-627.

The magnitude of this short term effect depends upon the initial population of an area and the adequacy of existing housing and services.

Employees who operate a new energy facility are generally fewer in number than workers required during peak periods of construction, and they comprise a long-term addition to the local population. However, State and local governments can still suffer a net financial loss if the facility is located outside of their taxing jurisdiction—in Federal OCS waters, for instance. Also, as population grows beyond a certain point, some cities have found it necessary to spend more per capita for public services and facilities.

Even if tax revenues eventually cover costs, there still may be 'front-end' problems with raising funds for the initial investment, particularly by small communities or communities with large amounts of existing debt.

Various estimates have been made of the magnitude of new coastal energy-related public investment over the next decade.

—The Office of Management and Budget has estimated that development of OCS oil will require new coastal State and local government investments over the next decade of \$100 to \$300 million in Alaska, \$100 to \$300 million in the Atlantic States, and nothing in California and the Gulf States.

—On the other hand, a draft study done by Energy and Environmental Analysis, Inc. estimates that "the scale of energy development in the coastal zone through 1985 will result in public sector investment costs in excess of \$5.235 billion."<sup>14</sup> Operation and maintenance costs are estimated to be an additional \$4.188 billion.

Studies on the net economic effect of coastal energy development have so far focused upon offshore oil and gas development.

—A 1973 Louisiana study estimated that the State suffered a net loss of \$38 million as a result of federally licensed offshore oil and gas operations. (Critics of the study have maintained that it seriously understated Federal contributions for provision of public facilities and services, among other things.)

—A 1974 Texas study predicted that accelerated OSC leasing off that State's coast would yield \$48.9 million in taxes and revenues, but would cost \$111 million for increased government services. (Critics have questioned some of the growth multipliers used in the study and whether or not the Texas tax structure is typical of other coastal States.)

—A 1975 study,<sup>15</sup> sponsored by the American Petroleum Institute, estimated that taxes generated by potential OCS production off the coast of New Jersey, Delaware, and Virginia might cover as little as half of local government expenditures for additional public services and facilities generated by the development.

In addition to public expenditures, energy development may impose other costs to the public in the affected area. Some of these are quantifiable, such as the sometimes startling increase in inflation rates which characterizes boom town economies. Other costs, however, may be more difficult to quantify: There may be major changes in traditional life styles; increased traffic and congestion; and increased air and water pollution.

<sup>14</sup> Energy and Environmental Analysis, Inc., Possible Approaches to the Implementation of the Energy Impact Provisions of Coastal Zone Legislation—Draft, pg. 2, Sept. 1975.

<sup>15</sup> Platts OILGRAM News Service, Oct. 23, 1975.

## ENVIRONMENTAL AND PUBLIC SAFETY ISSUES

Energy development in the coastal zone could result in substantial environmental damage. Increased air and water pollution, destruction of wetlands, fish, and shellfish habitat, and recreational resources may occur in some areas. If not properly controlled, secondary growth stimulated by the new energy development may result in urban sprawl, and a decline in the quality of life.

A catastrophic accident involving certain kinds of energy facilities could result in major losses of life and property. A major accident involving large liquified natural gas importation facilities now proposed or under construction near such populous ports as New York and Boston could result in hundreds, perhaps thousands, of deaths and injuries. To date liquefied natural gas accidents in Cleveland (1944) and Staten Island, N.Y. (1973) resulted in 100 and 43 deaths respectively. The likelihood of such accidents is unknown and of course could be minimized by locating the facilities at a remote site.

Nuclear power safety issues are particularly relevant to the coastal zone, because of the large number of people who live there, and because of the likelihood that a disproportionate number of new nuclear reactors will be constructed in coastal regions. Although a recent report prepared for the U.S. Nuclear Regulatory Commission estimated the probability of a core melt accident to be, on the average, 1 in 20,000 per reactor per year, considerable controversy surrounds the methodology used in the report.<sup>16</sup> A recent fire in a Tennessee Valley Authority nuclear plant, which some feel stopped just short of a core melt down, has dramatized nuclear safety issues.

### INFORMATION NEEDS

Despite the fact that the coastal zone will play a prominent role in Federal efforts to achieve lesser dependence upon foreign oil, and despite the fact that Federal energy actions could adversely affect land use and growth patterns in many States and localities, Federal agencies have not yet developed adequate information that would be useful to Federal, State, and local governments in attempting to anticipate and ameliorate the impacts of energy development.

Examples of information deficiencies are numerous:

- No Federal agency systematically compiles statistics on coastal energy facilities, even though nearly all new energy facilities must be approved by Federal regulatory agencies before their construction. While some agencies develop statistics on energy facilities nationwide, the information has not been broken down in terms of coastal counties. FEA, for example, has produced a working draft on proposed energy facilities throughout the country. The draft does not focus specifically on coastal counties, nor does it provide other information, such as acreage involved, that would be useful to coastal counties.
- The Bureau of the Census has not developed special reporting focusing on coastal counties. While a great deal of statistical information relevant to coastal planning and energy facility siting has been compiled by the Census, it is not aggregated in terms of coastal counties, nor focused on the special problems these counties may have.

<sup>16</sup> Nuclear Regulatory Commission, *Reactor Safety Study: An Assessment of Accident Risks in U.S. Commercial Nuclear Powerplants*. WASH-1400 (NUREG-75/014) October 1975.

—The Interior Department has not provided coastal States and counties with much information about the onshore impacts of OCS development. In its final environmental impact statement<sup>17</sup> on the accelerated OCS leasing program, the Department conceded that onshore facilities would be needed to support the OCS development, but concluded that an unknown number of facilities, and an unknown amount of land would have to be committed to this purpose in each OCS area.

While more information about coastal energy facilities may soon be available—NOAA's Office of Coastal Zone Management, for example, is expected to contract a study on the subject in the near future—the present information void may make it extremely difficult for coastal States to consider national energy needs in developing coastal planning processes.

#### STATE, LOCAL AND CITIZEN INVOLVEMENT

To a major degree, the success or failure of Federal energy plans will depend upon actions of State and local governments, and their citizens. There is an enormous amount of citizen interest in questions involving coastal zone management and energy development. This citizen interest has tended to energize State and local planning agencies, and State legislatures. As a consequence, there is a growing recognition that a national energy development policy that fails to take State and local sensibilities into account may not be viable.

Some examples of State and local capacities to affect Federal energy decisions follow.

- Delaware's legislature banned heavy industrial development (including energy development) from the State's coastal zone in 1971. The action was taken because of plans to construct a major oil refinery, and an artificial island to store coal in the State's coastal zone.
- In 1973, citizens of Durham, N.H., rejected a proposal by Aristotle Onassis to construct an oil refinery in Durham. Special legislation to override the Durham decision failed in the State legislature.
- Citizen opposition to nuclear power continues to grow. More than a million citizens in 14 States have signed citizen initiative proposals to ban construction of new nuclear powerplants until safety issues are resolved. Such an initiative proposal will be the subject Vermont legislature passed a law requiring its approval before the State Public Service Commission can authorize nuclear plants to be constructed, and some 300,000 citizens have petitioned Congress to place a moratorium on new nuclear powerplant construction.
- Following a 1973 accident in a Staten Island, N.Y., liquified natural gas facility, local citizens are attempting to prevent operation of a major new LNG facility on the island because of the possibility of a catastrophic accident.
- In response to the Department of Interior's plans for accelerated OCS petroleum development, California has passed a law<sup>18</sup> pro-

<sup>17</sup> U.S. Department of the Interior, Final Environmental Statement—Proposed Increase in Oil and Gas Leasing on the Outer Continental Shelf, vol. 2, pp. 280-281.

<sup>18</sup> Ch. 458, 1975 legislative session, which adds ch. 5.5 of Division 15 of the Public Resources Code.

hibiting new pipelines from entering its waters from the OCS through 1978, or until the State's coastal zone program is approved by the Secretary of Commerce. Suits have been filed by the State, a coalition of three of its counties, and 11 cities in southern California, alleging that the Interior action violates the National Environmental Policy Act, the Coastal Zone Management Act, the Intergovernmental Coordination Act, as well as Interior's own internal regulations. Nassau and Suffolk Counties on Long Island have already sued to block scheduled Atlantic sales, and other States are said to be considering joining the new litigation.<sup>19</sup>

#### PRESENT STATUS OF STATE PLANNING EFFORTS

The Coastal Zone Management Act of 1972 provides a framework with considerable potential for resolving general land use conflicts between the States and the Federal Government. In particular, the act requires both that States consider regional and national interests in developing their comprehensive coastal planning programs and that Federal activities affecting the Coastal Zone be consistent with the programs, once they are approved by the Secretary of Commerce. Exceptions are allowed to the consistency provision in the event that the Secretary determines that national security requires them. Since, however, the act was passed before the Arab oil embargo, and before the accelerated OCS leasing program, it does not have detailed provisions pertaining to energy facility siting.

All thirty coastal States, including those bordering the Great Lakes, are presently developing multipurpose coastal zone management programs under the Coastal Zone Management Act. These State programs, when implemented, will give State and local governments substantial new capabilities to deal with land-use and water-use problems that could arise from energy development in and adjacent to coastal areas.

Many of these same States also have statewide energy facility siting statutes or programs which are administered separately from the coastal programs. As single-purpose agencies, they are seldom, if ever, authorized to deal with secondary effects of their siting decisions, and there is a substantial potential for conflict between the State siting programs and the more comprehensive coastal zone programs.

#### NATIONAL LEGISLATION

Concern about conflicts between the Federal and Coastal State roles in energy development has led to the introduction of a number of bills in the 94th Congress. At issue is whether States should retain strong control over energy facility siting, with Federal funds being made available to plan for, mitigate, and compensate for adverse coastal impacts, or whether energy facility siting is so important that the Federal Government should gain greater authority over siting decisions.

<sup>19</sup> See New York Times, Nov. 23, 1975, p. 36, "Oil Rights Value Stirs Legal Fight." As of Dec. 18, 1975, however, none of these suits have been successful in gaining an injunction to delay or halt the lease sales proposed by the Interior Department.

S. 586 would amend the Coastal Zone Management Act by calling on Coastal States to conduct extensive energy facility planning and establishing a "coastal energy facility impact fund." The fund would provide planning money for energy facilities and their coastal impacts, and would make available grants or loans for mitigating adverse impacts in the coastal zone caused by energy activities. Specifically, grants would be available for those coastal States that could demonstrate (according to the Secretary of Commerce's guidelines) that they had suffered or would suffer a net adverse impact in their coastal zone due to an energy facility or activity subject to a Federal permit, license, or lease. Loans would be for mitigating temporary adverse impacts of energy facilities or activities.

In addition, S. 586 would provide bond guarantees for State and local governments facing the need to provide public facilities and services because of OCS development, and would provide automatic grants to States based on the amount of OCS oil and gas landed in or produced adjacent to such States.

The fund is authorized at \$200 million per annum over the next 3 years, with an additional \$100 million for the automatic grants.

S. 586 was passed by the Senate on July 16, 1975. Companion legislation, H.R. 3981, is under consideration in the House as this report goes to press.<sup>20</sup>

A somewhat similar approach to energy facility siting has been proposed in S. 984, the Land Resource Planning Assistance Act, which would make grants available to States for overall land use planning programs.<sup>21</sup> This bill, however, would not establish an impact fund.

In addition, several other bills have been introduced in the 94th Congress which are primarily designed to expedite energy facility siting through single-purpose planning. These include the Ford administration's energy siting bill, S. 619 and H.R. 2650, which proposes direct Federal promulgation of an energy siting program in the event that a State fails to meet Federal guidelines and priorities. The bill is also designed to expedite Federal review of energy facilities, and would specifically authorize construction of nuclear facilities prior to issuance of all required Federal and State approvals if the project complied with the National Environmental Policy Act and the Atomic Energy Act.

The administration has also introduced S. 2532, a bill to establish an Energy Independence Authority. Title VI of this bill would authorize the Federal Energy Administration to monitor the status of all energy project applications and to certify an energy project as being of "critical importance," if the project would make a substantial contribution to U.S. energy independence. Federal agencies would have to make diligent efforts to complete all necessary proceedings on certified projects within 18 months "or such shorter period as the [Federal Energy] Administration may for good cause specify."<sup>22</sup>

<sup>20</sup> The House Merchant Marine and Fisheries Committee completed hearings on H.R. 3981 in September 1975.

<sup>21</sup> The House version of this bill, H.R. 3510, failed to be reported by vote of the House Interior and Insular Affairs Committee.

<sup>22</sup> See "Greasing the Application Wheels"; National Journal; p. 1491; Oct. 25, 1975 issue for a discussion.



## I. CONSTRAINTS ON THE SITING OF ENERGY FACILITIES IN COASTAL AREAS

If the coastal zone is, indeed, to play such a major role in the Nation's energy future, finding acceptable sites for new facilities will not be easy. The assembly of land parcels both large enough and suitable for energy facilities is presently a difficult process which is likely to be compounded in the future not only because of a more limited supply of available coastal land, but by the need to insure that such development is compatible with overall land-use needs, and is acceptable in terms of the environment and public health and safety.<sup>1</sup>

Some of the major issues are discussed below.

### *Environmental Hazards*

The coastal environment is extremely vulnerable to environmental degradation. Coastal estuaries and wetlands, long considered prime sites for industrial development, provide an absolutely essential life support function for oceanic plant and animal life.

Over the years a large percentage of U.S. wetlands have been filled in or destroyed. This occurrence is discussed in the report "Man in the Living Environment":<sup>2</sup>

Settlement and industrialization of the coastal zone has already led to extensive degradation of highly productive estuaries and marshlands. For example, in the period 1922-1954 over one-quarter of the salt marshes in the U.S.A. were destroyed by filling, diking, draining or by constructing walls along the seaward marsh edge. In the following 10 years a further 10% of the remaining salt marsh between Maine and Delaware was destroyed. On the west coast of the U.S.A. the rate of destruction is almost certainly much greater, for the marsh areas and the estuaries are much smaller.

Dredging and filling of wetlands and estuaries reduces the capacity of this type of ecosystem to spawn and nurture a large portion of the species comprising oceanic food chains. Some 60 to 70 percent of Atlantic and Gulf of Mexico fish, for example, are estuarine-dependent, and nearly all species of shellfish require estuarine habitat to support their life cycles.<sup>3</sup> Moreover, disruption of these areas may destroy wildlife habitat, diminish recreational opportunities, and reduce their capacity to serve as a kind of natural waste treatment plant. While the actual economic value of estuarine systems is probably impossible to determine, the Interior Department's 1970 National Estuarine Pollution Study estimated that the presence of estuarine

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<sup>1</sup> As will be discussed in more detail later, a few states with comprehensive energy facility siting programs—California, Maryland, and Minnesota—are now developing processes to identify and reserve sites for future energy facilities several years in advance of any construction. In theory, at least, this will assure an adequate supply of sites with the least amount of environmental damage, and the least threat to public safety.

<sup>2</sup> "Man in the Living Environment", Report of the Workshop on Global Ecological Problems, The Institute of Ecology, 1971, at p. 244.

<sup>3</sup> John Clark, "Coastal Ecosystems: Ecological Considerations for Management of the Coastal Zone." The Conservation Foundation (Washington, D.C.), 1974, p. 26.

systems resulted in about \$60 billion in direct economic benefits to citizens of coastal counties.<sup>4</sup> This study also showed that there is a particularly high concentration of industrial development in coastal counties; these areas constitute 15 percent of the land area of the United States and have 40 percent of all manufacturing plants.

Because of the heavy concentration of people and industry in coastal areas, air and water pollution problems are often severe. Coastal water pollution often adversely affects commercial fishing. By 1970, 500 square miles of shellfish beds in Galveston Bay were classified as unfit for harvesting because of industrial pollution and inadequately treated sewage from nearby Houston.<sup>5</sup> Heavy metals carried in storm water runoff have resulted in benthic toxicity in waters downstream from urban areas such as Cleveland and Chicago. Particularly acute benthic toxicity has been noted in San Francisco Bay, which receives over 1 million pounds of toxic metals per year from adjacent urban centers.<sup>6</sup> Heavy metal benthic toxicity results in an unfit habitat for many aquatic species, and can result in potentially lethal concentrations of toxic substances in food chains.

Some coastal pollution problems are directly related to energy facilities. For example, thermal water pollution caused by return of heated waters used in cooling nuclear reactors may raise water temperatures above acceptable limits for some aquatic species. Cooling water makes up an increasing percentage of water used for industrial purposes. A 1968 study by the Water Resources Council found that 33 percent of all water withdrawn for use at that time was used for cooling steam electric powerplants. The Council projected that cooling water would account for 44 percent of all water withdrawals by 1980; and 67 percent by the year 2000. It has been estimated that as much as one-sixth of the total available fresh-water runoff in the Nation will be used for cooling purposes by 1980.<sup>7</sup>

Greater air pollution in coastal areas, with its increased risk to public health, is also likely if clean air standards or requirements are eased for fossil fuel fired electric powerplants as is proposed in several bills in the 94th Congress.<sup>8</sup>

### *Questions of Public Safety*

Significant and difficult questions about public safety are associated with placing certain kinds of energy facilities in heavily populated coastal regions. For example, suppliers of natural gas are planning to construct harbor terminals and storage facilities to receive tanker shipments of liquified natural gas. These plans involve construction of facilities in or near some of the most populous ports in the Nation—New York City and Boston among others.

<sup>4</sup> U.S. Department of Interior, "The National Estuarine Pollution Study: Report of the Secretary of the Interior to the United States Congress." 91st Congress, 2d sess., March 1970. S. Doc. No. 91-58, p. 28.

<sup>5</sup> Gladwin Hill, "Texas Pollution Spurs Action by the United States," the New York Times, Jan. 19, 1970, p. 33.

<sup>6</sup> Enviro Control, Inc., Total Urban Water Pollution Loads: Impact of Storm Water. Prepared for the Council on Environmental Quality. NTIS No. PB-231-730 (1974). p. 108.

<sup>7</sup> See Arthur A. Levin et al., "Thermal Discharges: Ecological Effects," in Water Pollution, Stanley S. Miller, ed., American Chemical Society, 1974, and Robert Zener, "The Federal Water Pollution Control Act," in Federal Environmental Law (West Publishing, 1974) for a discussion of thermal pollution.

<sup>8</sup> See, for example, S. 694, H.R. 2650, H.R. 2633.

While LNG processors claim that a catastrophic accident is unlikely, a 1973 fire in a Staten Island, N.Y., LNG facility killed 43 people. A subsequent Federal Power Commission<sup>9</sup> environmental impact statement on a proposed LNG importation facility which would also be located on Staten Island indicated that 807,000 people live in the "risk corridor" adjacent to the barge path which would be used in carrying LNG to and from the facility. While the impact statement did not predict the number of fatalities that would result in the event of a major barge accident involving a release of a large amount of LNG into the harbor, a catastrophic accident could result in the formation of an LNG vapor cloud several square miles in size. If such an accident occurred in the most densely populated portion of the "risk corridor," which has as many as 100,000 people per square mile, the accident would presumably kill or maim thousands of people—perhaps even hundreds of thousands. Remote siting would greatly reduce these risks.

Greater controversy has surrounded plans to increase the number of nuclear powerplants. This controversy has particular relevance for coastal areas because new nuclear facilities are expected to be heavily concentrated along the coast in order to take advantage of the ready supply of cooling water. In addition to the environmental effects of waste heat, opponents of nuclear power assert that the risk to public health and safety are too great to accept. They fear thefts of nuclear material by terrorists and they also claim that catastrophic accidents may occur at the plants. Although Federal officials maintain that the probability of a major nuclear power plant accident is extremely remote and that nuclear material can be controlled, some nuclear scientists believe the probability is much higher or is not even susceptible to meaningful calculation.<sup>10</sup>

#### *Secondary Impacts of Energy Facility Siting*

The siting of energy facilities may have major effects on land use and growth patterns not only for the land actually used for the facility and the land adjacent to it, but for the region as a whole. The magnitude of such secondary impacts in any given region is likely to depend on such factors as the capacity of existing onshore energy and transportation infrastructure, the degree of urbanization, the region's employment base, and capacity of the local or State governments to plan for and service new growth.

The Council on Environmental Quality (CEQ), in a report on OCS development, stressed that while energy developments could increase employment opportunities, economic output and income, "the growth that they cause will strain existing public services, bring additional land under commercial, residential, and industrial development, and add to air and water pollution."<sup>11</sup>

Although perhaps an extreme example, the Alaska pipeline project gives an idea of the problems that can arise from the "boomtown" effects of a major development project placed in areas ill prepared to

<sup>9</sup> Federal Power Commission, Final Environment Impact Statement for the Construction and Operation of an LNG Import Terminal at Staten Island New York. CP-72-37. East Co. Gas LNG Inc., July 1974. Vol. 2.

<sup>10</sup> See James G. Phillips, "Energy Report: Nadar, Nuclear Industry, Prepare to Battle over the Atom," (National Journal Reports, Feb. 1, 1975) for a discussion of nuclear safety issues.

<sup>11</sup> "OCS Oil and Gas—An Environmental Assessment: A Report to the President by the Council on Environmental Quality," April, 1974, p. 115.

cope with a sudden influx of population. A recent State of Alaska publication <sup>12</sup> cautioned out-of-staters on the hazards involved in moving to Alaska in expectation of finding high paying pipeline jobs: Over 5,000 prospective pipeline workers were already on waiting lists for pipeline employment. Cost of living indices for Anchorage were 48 percent above the U.S. urban average, and monthly expenses for a lower budget family of four in Anchorage were \$375.25 higher than in average U.S. urban areas. Two-bedroom houses with floor space equivalent to a one-bedroom house in the lower 48 States were selling for around \$60,000. The publication notes that housing and employment problems in Fairbanks and Valdez communities which are actually on the pipeline route, are two and three times as severe as in Anchorage.

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<sup>12</sup> Alaska Department of Natural Resources, Advice to Persons Seeking Alaska Employment. Alaska Land Lines: June 1975.

## II. FINANCIAL AND ADMINISTRATIVE PROBLEMS ASSOCIATED WITH THE SITING OF ENERGY FACILITIES

There is growing concern among energy officials about the capacity of the financial market to supply the capital requirements of the energy industry, and about the proliferation of Government clearances that may be required before new energy facilities can be constructed. These problems are briefly discussed below.<sup>1</sup>

### *Financial Constraints*

For the past 25 years, the average U.S. annual energy investment has been 23 percent of average total business investments, and has been even greater during the last 5 years. Nevertheless, a 1975 report<sup>2</sup> by the Energy Research and Development Administration (ERDA) noted that domestic energy investments have not been sufficient to keep domestic production in line with the growth of domestic energy consumption. The report pointed out that doubts had been raised about the capacity of the economy to continue to provide such funds. Capital requirements for new energy facilities have been estimated at \$450 to \$600 billion over the next decade. ERDA noted that over the next 25 years investments per unit of energy may be 50 to 70 percent higher than today's requirements.<sup>3</sup>

There are some indications that business may look to the Federal Government to partially subsidize high risk energy development. For example, Westinghouse recently asked the Federal Energy Administration to buy four floating nuclear powerplants at a package price of \$1.7 billion. In the face of mounting questions about nuclear power and future electricity demand, only one utility has actually ordered a floating nuclear plant from Westinghouse, and this utility has asked delivery to be delayed for 5 years.<sup>4</sup>

### *Review and Approval of New Facilities*

Planning and construction of major energy facilities takes a substantial amount of time. At a minimum, it takes 2 years to build offshore oil production platforms and 3 years to build a major oil refinery. A nuclear powerplant may take 10 years to plan, license, and construct.<sup>5</sup>

<sup>1</sup> For an in-depth discussion of the U.S. capital situation over the next decade. *Business Week*; Sept. 22, 1975.

<sup>2</sup> Energy Research and Development Administration, *A National Plan for Energy Research, Development and Demonstration: Creating Energy Choices for the Future*, June 1975, vol. 1, pp. ix-1 to ix-2.

<sup>3</sup> The report also noted that the consensus of a number of studies is that capital markets will be capable of meeting energy investment within the "range of the historic proportion of energy investment to total business investment." These studies apparently assume a slowing in the energy growth rate.

<sup>4</sup> Luther Carter, "Nuclear Power: Westinghouse Looks to Washington for a Customer," *Science*, July 4, 1975, pp. 29-30.

<sup>5</sup> Energy Policy Project of the Ford Foundation, *A Time To Choose*, 1974, p. 3.

In addition, there may be delays stemming from government review and litigation, as well as delays related to labor and parts supply or installation. A Federal Power Commission survey of the causes for delay in construction of 114 electric generating units between 1966 and 1970 found that 52 percent involved labor; and 23 percent involved faulty installation of equipment. Only 6 percent of the delays were attributed to delays in government clearance. However, the FPC projected that government regulations, and the litigation that may stem from them, might ultimately account for one-half of all delays in construction.<sup>6</sup>

A major factor in the genesis of energy facility siting legislation has been a desire to expedite government review and approval of new facilities. In some instances, 70 or more agencies at the local, State, and Federal levels must review and separately approve proposals for new facilities before construction may begin. In the absence of effective coordination, these agencies may duplicate each other's efforts, thus causing additional delay or expense, and may at times specify contradictory requirements.

Several States have developed "one stop" review processes, in which one agency has exclusive and final responsibility for approving a project. In some cases, the agency is authorized to override local controls, or even the requirements of other State agencies if it determines that the facility is needed, and that meeting the other requirements is not technically or economically feasible.

Delay of a needed project by government review is often exacerbated by the failure of the applicant to provide sufficient leadtime in the planning of a facility to anticipate such contingencies. Normally, a utility is greatly committed to a given site and design of a facility by the time an application for approval is submitted. If it is determined that the site is inappropriate, the cost in terms of time and planning expenditures and land purchases may be great. At the same time, this investment by the utility makes it more difficult for the regulatory agency to reject an inappropriate site for a project.

Under the prevailing system, approval of the site and final approval of the project are not separated. Hence, it is not possible for a utility to receive advance assurance that the site it has chosen is appropriate while it is formulating detailed plans for the facility itself. Several States<sup>7</sup> have recently separated the two to provide a preliminary approval of the site based on a tentative design of the facility, and a final review and approval after plans are fully formulated. Under this system, the utility is required to apply for a preliminary approval several years before it intends to construct a new facility. Thus the utility is likely to have more flexibility if a given site is rejected. The system also gives Government agencies and the public a greater capacity to influence the planning of facilities at an early date.

<sup>6</sup> U.S. Senate Commerce Committee, "Background Report on Power Plant Siting," 92d Cong., 2d sess., July 1972, p. 11.

<sup>7</sup> See the discussion of the California, Montana, Maryland, and Minnesota energy siting acts in Appendix I for a more detailed examination of this process.

### III. ELECTRICAL FACILITIES AND THE COASTAL ZONE

Most of the nation's electricity is generated and consumed by coastal states. While precise breakdowns are not available, the heaviest concentration of electric facilities is in coastal areas, if not the coastal zone per se. Figure 1 shows the concentration of powerplants along the shores of the Great Lakes.

In 1970, the Federal Power Commission forecast an enormous increase in generating capacity for the Nation's coastal and Great Lakes megalopolitan areas between 1970 to 1990 (Figure 2). Some support is lent to these projected increases by the expected population growth of these areas, but the energy crisis has raised significant doubts about the possibility that the high rate of growth in electricity demand that such projections imply will continue.

There is already a particularly high concentration of nuclear generating plants in coastal areas. Of the 243 nuclear power plants in operation, under construction or in the planning phase as of June 30, 1975, 208—about 85 percent—are located in coastal States, and many if not most of these have been located adjacent to tidal or Great Lakes rivers in order to take advantage of the ready supply of cooling water. Figure 3 shows this heavy concentration of nuclear facilities around coastal areas.

Future nuclear generating facilities will also be heavily concentrated in and around coastal areas. One factor that could raise this concentration even higher is the development of "floating nuclear powerplants." Such facilities, which could be mass-produced according to standardized design, would be moored off coastal areas behind large breakwaters.

Electric transmission line rights-of-way are also a major coastal land use. While precise figures are not available for coastal areas, transmission line rights-of-way nationwide covered over 4 million acres of land in 1970, an area approximately the size of Connecticut. It has been estimated that, by 1990, some 200,000 miles of new transmission lines, requiring an additional 3 million acres, may be constructed.<sup>1</sup>

#### *The Controversy Surrounding Electricity Demand Forecasting*

Because of the energy crisis and because of the growing public awareness of the environmental hazards associated with electricity production, significant questions of keen interest to coastal States are being raised about the way in which future demand for electricity is estimated. The questions concern whether present demand projections, largely based on past trends: (1) are based on price assumptions that do not adequately reflect environmental costs or the recent dramatic

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<sup>1</sup> U.S. Congress, Joint Economic Committee, "Economy, Energy, and the Environment," committee print prepared by the Legislative Reference Bureau, 91st Cong., 2d sess., 1970, p. 116.

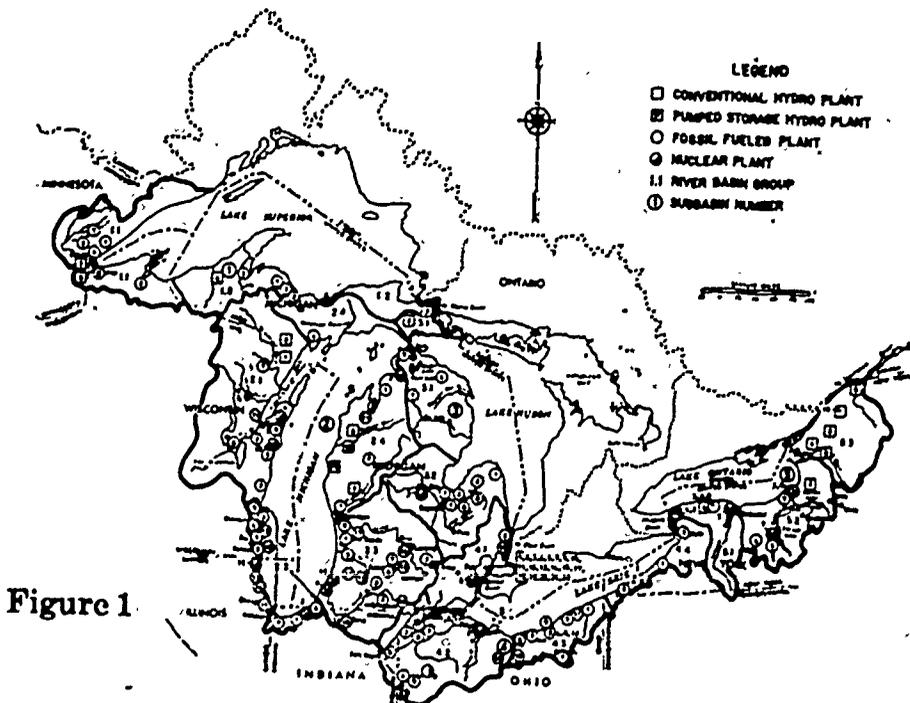


Figure 1

Source: Great Lakes Basin Commission; *Great Lakes Basin Framework Study*; Appendix 10; Power, Printed in 1975

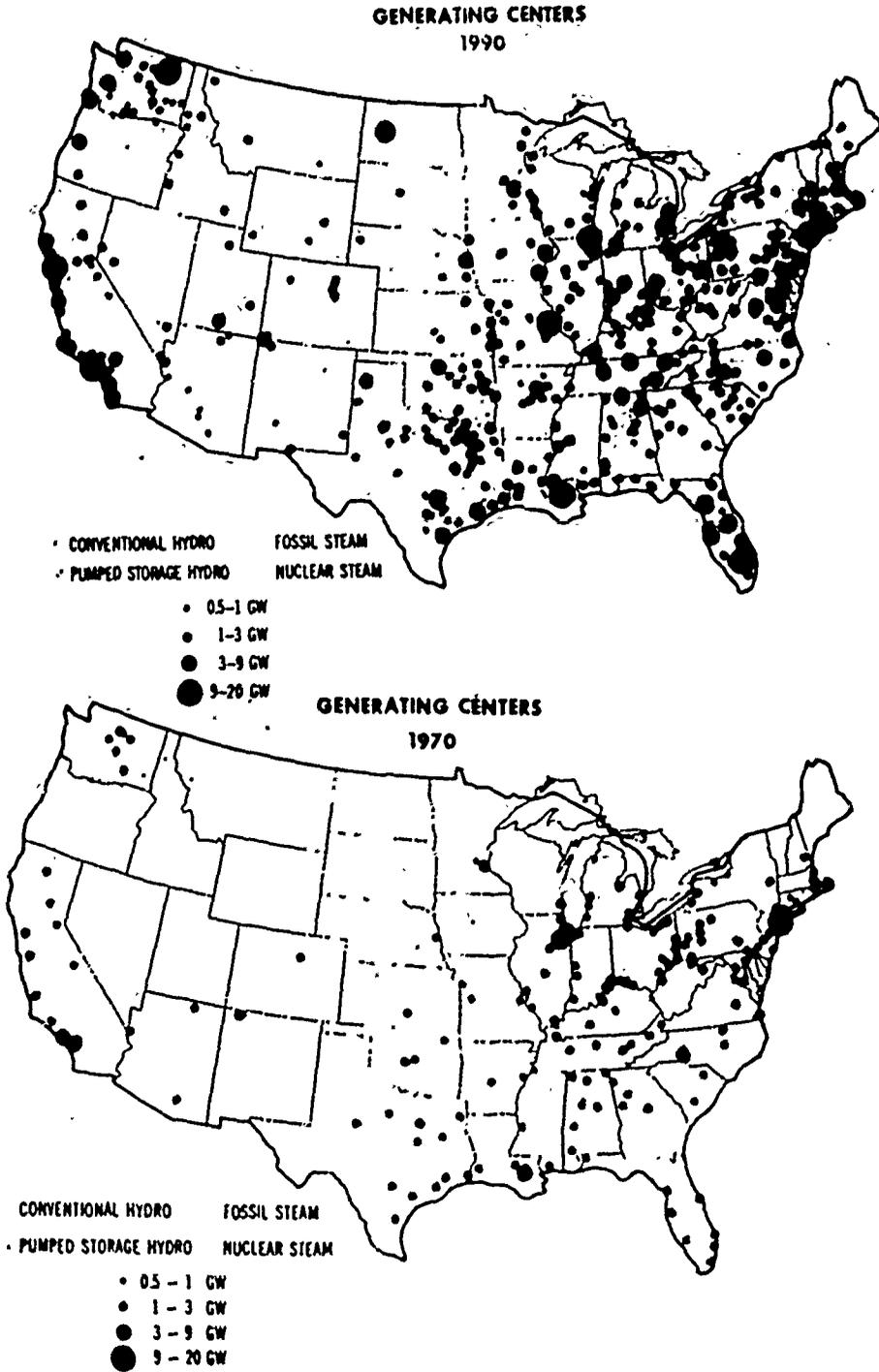
increases in the price of fuels, and (2) tend to be self-fulfilling prophecies. A major issue is whether the methods used to forecast electricity demand should be shaped to a greater extent by public policy.

Demand projections used by State or Federal agencies to anticipate State or national electricity needs in the future have traditionally been composites of marketing area projections prepared by utilities. These utility-prepared projections have usually been based on such factors as the historic rate of growth in demand for electricity for their marketing areas, and estimates of future population growth for the areas. Since a decade of leadtime is needed to plan and construct new facilities, demand projections play a key role in determining siting needs.

Critics argue that the past exponential growth of electricity demand (about 7 percent annually or a doubling every decade throughout most of this century) cannot be expected to continue much longer simply because the arithmetic of exponential growth would soon outstrip any realistic projection of resource availability or construction capacity.

As shown in figure 4, there are, in fact, substantial variations among projections of national electric energy consumption needs through the year 2000. This variation is particularly evident in the two Ford Foundation projections, one of which is based on the assumption that the past historic growth of electricity consumption continues unabated into the future, while the other is based on the assumption that policies are adopted to achieve zero increase in the rate of growth of energy consumption.

Figure 2



Source: Federal Power Commission, 1970 National Power Survey.

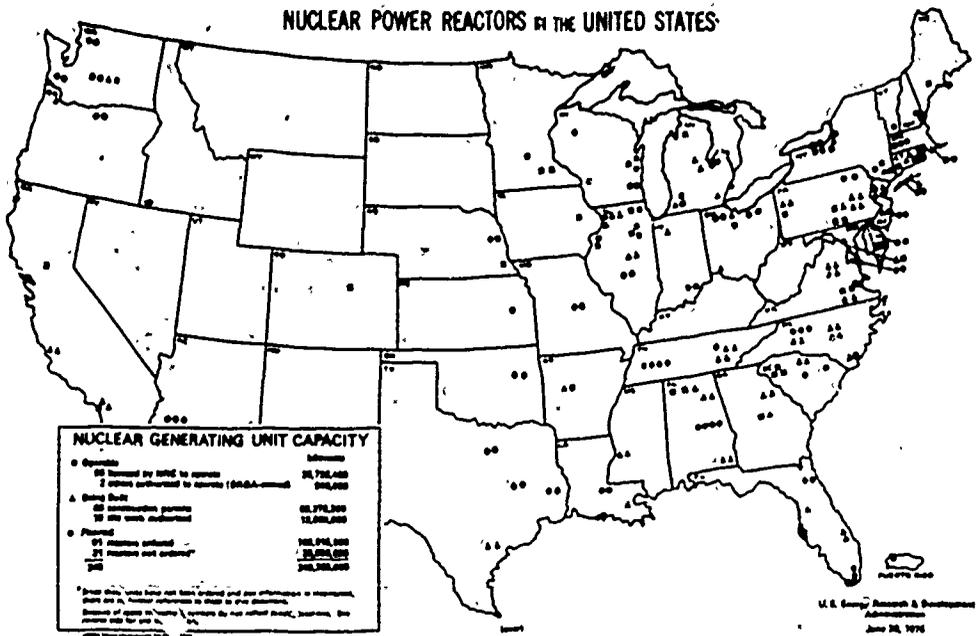
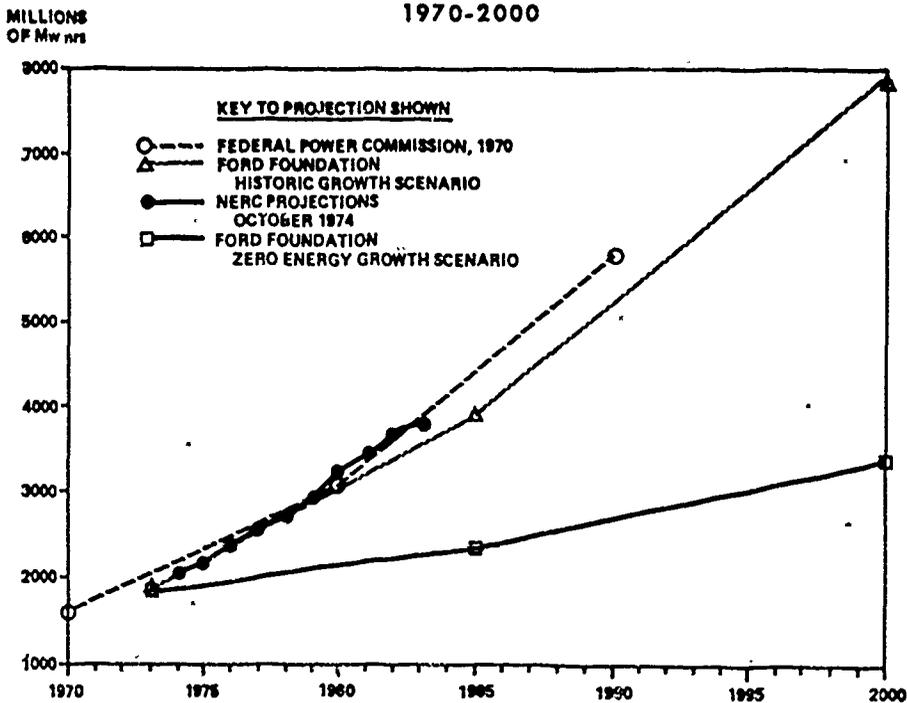


Figure 3

PROJECTIONS OF ELECTRIC ENERGY CONSUMPTION 1970-2000 Figure 4



Source: James Just, Mitre/NSF Workshop on Legal and Institutional Problems of Electrical Facility Siting.

A task force of the Association of the Bar of the City of New York has suggested that the primary assumption behind traditional demand projections—i.e., that utilities should supply all of the electricity demanded by consumers—needs to be reevaluated:

A major flaw in the current approach to the electric energy problem is the absence of any mechanism by which the growth in electric energy demand may be evaluated. As a society, we do not ask whether the resource base is sufficient. Nor do we inquire whether we can afford—or somehow, through technology, avoid—the seemingly predictable environmental costs of meeting such increased demand. It seems obvious that national policy should be predicated upon conscious determinations of those questions just as it must reflect considered judgments about the complex of questions relating to reliability and supply.<sup>3</sup>

### *Declining Growth Electricity Sales in the 1973-75 Period*

An analysis<sup>4</sup> presented by the Mitre Corp., in 1975, shows that between October 1973, and October 1974, nationwide sales of electricity by the utility industry actually decreased 3.4 percent. For the year 1974, according to FEA, the production gain for electric utilities was less than 1 percent. Output for the period January through August 1975 was 2 percent above the level for the corresponding period in 1974. These growth rates are far below the 7.2 percent average annual growth rate experienced over the previous decade. The decline in electricity sales has generally been attributed to the effects of inflation and recession.

While 1975 electricity production is somewhat above 1974 levels, there is good reason to believe that the electric industry growth rate will not return to the 7 percent figure of past decades for the foreseeable future. The utilities apparently have recognized the new trend; and in the 1973-75 period, at least, they have cancelled or indefinitely delayed a substantial number of planned projects. Business Week has estimated that in 1974 alone, 170,000 Mw of a total of 360,000 Mw of planned capacity expansion were cancelled or significantly delayed by utilities.<sup>5</sup> About two-thirds of the cancelled capacity involved nuclear powerplants. Business Week estimated that the cost of expanding existing capacity to meet projected demands for the next decade could be \$232 billion. It should be noted that the 1974 cancellations and delays reflect long-term financial difficulties of utilities as well as a more modest view about growth.

President Ford's Labor-Management Committee<sup>6</sup> has estimated recently that the 1974 cancellations or deferments of construction involved 106 nuclear and 129 coal-fired powerplants. The committee suggested that these plants are needed to meet the Nation's energy needs between 1980 and 1985, and that the postponement "seriously

<sup>3</sup> Association of the Bar of the City of New York. "Electricity and the Environment: The Reform of Legal Institutions." A Report of the Special Committee on Electric Power and the Environment (1972), p. 5. A strong dissent to the suggestion that demand projections be reevaluated was made by Theodore J. Carlson, a member of the Special Committee: ". . . to the extent that the report suggests implicitly or explicitly that a Federal or regional governmental agency or even Congress might at some point restrict demand by regulatory or legislative measures or try to allocate the installation of capacity among regions, the report, I believe, is moving literally in an impossible area. Any such suggestion is without precedent; and in the areas in which regulation remotely similar has been tried, the process has been complicated, difficult and unsatisfactory with results which can only be characterized as dubious. The intended goals, I believe, are literally beyond the capacity of the administrative process to achieve. Even the existence of a possible power to allocate the installation of capacity would create incomparable political pressures as well as economic ones and its exercise will produce an incalculable effect upon the economic ecology . . . Any such proposals will necessarily involve broad economic planning, which it is hard to believe would be acceptable to the American people." (*Electricity and the Environment*, p. 325.)

<sup>4</sup> Remarks of James Just at the Workshop on Legal and Institutional Problems of Electricity Facility Siting. Sponsored by the Mitre Corporation and the National Science Foundation, February 27, 1975.

<sup>5</sup> Business Week, January 20, 1975, p. 46.

<sup>6</sup> Weekly Compilation of Presidential Documents, Vol. II, No. 24, June 23, 1975.

jeopardizes" a national objective of lesser dependence on imported oil. The Committee has predicted dire economic consequences if the postponement continues:

It . . . threatens continued economic growth, promises to restrain essential job creation and inhibits measures to reduce unemployment. Since electric utilities require a number of years to get new plants on stream, the current slippage of schedules and cancellation of new facilities may be expected to result in future energy shortages and serious restrictions to economic expansion. It is imperative that there be substantial restoration of construction of electric utilities at once. Special measures are needed to shorten significantly the very long lead time which now exists between the design of a project and its completion.<sup>6</sup>

Significantly, the Federal Power Commission has found that 10-year projections prepared by utilities in 1975 show important declines in growth rate for peak electrical loads, generating capability, annual energy requirements, and reserves over comparable 10-year projections prepared in 1974. An FPC staff analysis<sup>7</sup> of the utility projections found that the projected annual growth rate for electricity declined from 7.43 in 1974 to 6.73 in 1975. A similar drop was found for projected electricity demand for the decade ending 1985—7.59 to 6.84 in the 1974 and 1975 projections respectively. The report notes:

The decrease in demand projected by the utilities may be attributed in the main to their views reflected in higher prices for electricity, and some hesitancy regarding the growth of the economy. While conservation measures and higher prices may slow the growth rate, the depletion of oil and natural gas resources may well promote the prominence of nuclear energy in particular and electric energy in general as an end-use substitute for oil and gas.

The FPC urged utilities to be cautious in cancelling plans for future facilities on the basis of decreasing demand projections, noting that:

. . . capability growth can be decreased quickly but due to long lead times cannot be increased significantly on short notice. Utilities should be cautious in curtailing construction plans on the basis of current decreases in projected load, in order to avoid future power shortages.

### *The Potential For Energy Conservation*

Further downward modification of long-term demand projections may occur in coastal States if the Nation commits itself to energy conservation policies that would reduce the rate of growth of electricity demand, and increase the reliability of energy generation, transmission and consumption. The energy policy project of the Ford Foundation has suggested that reducing the power industry's historical rate of growth from 7 percent to 3.5 percent annually would permit a 10-year delay in new powerplant starts:

Powerplants now on order for completion by 1980 could satisfy the demand for electricity until 1985 under such an energy conservation policy. This would mean that a pause of several years in new power-plant starts is possible for the

<sup>6</sup>The administration has introduced the Utilities Act of 1975 (Title VII of H. 594), as a proposed solution to some of the financial problems of the utility industry. The bill proposes: (1) to authorize 15 percent of construction costs to be passed through to present consumers; (2) to require utility regulatory commissions to rule on petitions for rate increases within five months; (3) to permit utilities to pass through to consumers automatic rate adjustments to account for increased fuel costs without the approval of a regulatory commission; (4) to permit utilities to include in the utility's rate base the capital cost associated with environmental control facilities; and (5) blanket authorization to utilities to use a normalization system of accounting.

<sup>7</sup>Federal Power Commission, Bulk Power Load and Supply Information Reported April 1, 1975, by the Regional Reliability Councils Under Docket R-362 (Order 283-3).

nation as a whole. During this period, technical progress could diminish concerns about the safety of nuclear power and about air pollution from burning coal or oil in powerplants.<sup>9</sup>

Some idea of the energy savings involved in increasing the reliability of existing electric generating plants is given in a 1975 report by the Interagency Task Group on Power Plant Reliability,<sup>10</sup> published by the Federal Energy Administration. The task group calculated that cutting by just 1 percentage point the amount of time existing nuclear and large fossil fuel plants are forced out of service—from 15 percent of the time to 14 percent—could result in a 6,800 Mw reduction in installed capacity requirements, and capital savings of \$1.8 billion, by the year 1980. By implication, at least, this means that it would take seven fewer powerplants in the 1000 Mw range to meet future demand projections if this 1 percent improvement could be achieved and maintained.

Similarly, the task group found that improvements in the industry's 60 percent capacity factor—i.e., the percentage of the time that the power units operate at full capacity—could result in major fuel savings. For example, an 8 percentage point improvement in nuclear capacity—could result in major fuel savings. For example, an 8 percentage point improvement in nuclear capacity factor, and a several percentage point improvement in 400 Mw-and-larger coal-fired units would increase output equivalent to the electric energy produced by burning more than 500,000 barrels of oil per day. At projected fuel costs, the task group noted, this would reduce the industry's fuel costs by \$3 million per day.

Greater utility commitment to planning new facilities and transmission lines on a regional basis could also reduce both the number of new powerplants needed in the future, and the capital requirements of the industry. The Ford Foundation study has noted that many individual utilities still do not take full advantage of the increased efficiency of interregional power-grids. Hence, industry reserve margins are now about 20 percent, as compared to the 15 percent goal set for a fully coordinated industry in 1964. The Ford study notes that making up this 5 percent difference would save \$10 billion—the equivalent of 20 large powerplants today, and more in the future.

A change in the rate structure of the utility industry could promote consumer conservation of electricity. The present rate structure generally results in lower prices the more a customer consumes. Hence, a small consumer may be charged several times as much for the same unit of consumption as a large consumer. Proponents of the present rate structure suggest that the rate structure is justified on the basis of cost, and that it encourages fuller use of capacity during hours of slack demand. Others, however, feel that the rate structure is not cost justified, and that it should be changed to allow higher rates for peak periods in order to reduce consumption. Widespread adoption of rate

<sup>9</sup> Energy Policy Report of the Ford Foundation, *A Time to Choose: America's Energy Future*, 1974, p. 332. It should be noted that the report recommends a national goal of achieving a reduction in the rate of growth of energy demand to 2 percent a year, a level substantially lower than the 3.5 percent rate growth on which the above projection of sitting needs was based.

<sup>10</sup> Interagency Task Group on Power Plant Reliability, *A Report on Improving the Productivity of Electric Power Plants*, Federal Energy Administration, March 1975.

structures allowing lower cost electricity during periods of the day when electricity demand is slack could reduce the need for new facilities and the use of low cost, but inefficient turbines to meet peak demands. While noting that there are problems involved in implementing "peak-load" pricing, such as the need to install time meters, the Ford Foundation Energy Policy Project has suggested that such pricing would also mitigate customer conservation efforts being rewarded by higher electric bills.<sup>10</sup>

Finally, widespread adoption of a variety of conservation devices, such as more efficient insulation of structures, regulation of lighting of unoccupied buildings, and changes in building design and construction in order to conserve electricity, could reduce the growth of future demand.<sup>11</sup>

Currently, FEA has a supplemental appropriation request before Congress for a greatly expanded conservation program. The program would focus on informing consumers, building owners, and industry of specific actions that can be taken that save both energy and money (cost-effective conservation). Private media would be used in a professional marketing and advertising campaign.

FEA estimated for OMB that 675,000 bbl/d of oil equivalents can be voluntarily saved by 1977, 1,175,000 bbl/d by 1980, and 2 million bbl/d by 1985, if the program proposed to OMB were carried out over the next few years. These estimates are based on analysis and experiments with consumers and industry. The above savings would be a larger contribution to solving the energy crisis than is expected from new OCS oil, solar energy, or accelerated coal or nuclear, and could be provided at no environmental cost.

#### *Other Factors That May Influence Siting Needs*

Significant reduction in the need for new energy facility sites in coastal areas could occur if there is adoption of the energy power park concept. A power park would be an energy site with multiple facilities, and by present standards, enormous generating capacity. While widescale adoption of the power park concept would reduce the number of energy sites needed in the future, it would at the same time increase by many times the acreage needed at each individual site. The National Science Foundation's Advisory Committee on Energy Facility Siting has reported that power parks could reduce the number of new electrical sites needed, through the year 2000, to 30 to 60. However, these parks would require 40,000 to 60,000 acres apiece.<sup>12</sup>

The Nuclear Regulatory Commission is presently conducting a national survey, due in mid-January 1976, of possible sites for nuclear energy center sites. These sites would be large enough to support all elements of the nuclear fuel cycle, including fuel reprocessing and fabrication centers, waste storage facilities, and uranium enrichment facilities, in addition to powerplants.<sup>13</sup>

<sup>10</sup> "A Time To Choose," *op. cit.*, p. 259.

<sup>11</sup> California's Energy Resource Conservation and Development Act, (Cal. Pub. Res. Code 24000-25405), for example, calls on the State Energy Commission to develop energy conserving building regulations to be implemented through local government subdivision regulations.

<sup>12</sup> Minutes and Summary of the First Meeting of the Advisory Committee on Energy Facility Siting, Office of the Science Advisor, National Science Foundation, November 20, 1974, pp. 9-12.

<sup>13</sup> The NRC site survey is required by the Energy Reorganization Act of 1974 (Public Law 93-438.)

*Electrical Facilities and Coastal Zone Management*

Because of the heavy concentration of electrical facilities in the coastal zone, and because of their heavy impact on coastal resources, powerplant siting is an important factor in coastal zone management. Yet, in most States, regulation of powerplant siting is not carried out by the State coastal zone management lead agency, but by a State energy facility siting commission or its equivalent. In many States, the siting authority has autonomous powers to override objections of local governments or other State agencies about proposed energy facilities, in the interest of expediting the siting of facilities that the commission determines are necessary.

An exception, however, is California, which has both a State energy facility siting commission and a coastal zone commission. The State siting commission cannot approve an application to construct a powerplant in the regulatory jurisdiction of the coastal commission without the latter's concurrence. The State coastal commission, in its preliminary coastal zone plan<sup>14</sup> which, when finalized, will be submitted to the State legislature for consideration, has made a number of recommendations about powerplant siting in the coastal zone. The tentative plan proposes that powerplants should not be located in the coastal zone unless the applicant can demonstrate that: (1) utilization of a full range of conservation measures would not reduce base load and peaking requirements sufficiently to eliminate the need for the proposed facility; (2) obtainable land sites or alternative technologies would have greater adverse impacts than a coastal site; (3) the proposed facility would not conflict with other land uses, existing or proposed; (4) the proposed facility would not significantly degrade air quality; and (5) provision would be made for public access to beaches and minimization of any adverse scenic impacts.

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<sup>14</sup> California Coastal Zone Conservation Commission, "Preliminary Coastal Plan," Hearing Draft, March 1975, pp. 207-208.



#### IV. OIL AND GAS FACILITIES AND COASTAL AREAS

The accelerated leasing of the Outer Continental Shelf for oil and gas exploration and development, and the likelihood of continued importation of a substantial proportion of the U.S. oil and gas supply will probably result in the construction of many new facilities in coastal areas. Uncertainties about the actual productivity of OCS lands, about the success and scope of national efforts to conserve oil and gas supplies and to develop alternative fuel sources, and about reliability of foreign supplies cast considerable doubt on long-term predictions about the number and location of new onshore energy facilities.

##### *Projections of Future Domestic Oil and Gas Reserves and Production*

Estimates of recoverable domestic oil and gas reserves have been highly variable, but recent projections have drastically reduced earlier estimates. A 1975 U.S. Geological Survey study, for example, nearly halved earlier USGS estimates of petroleum reserves. This same study estimates that about one-half of the undiscovered recoverable oil resources and one-quarter of the undiscovered recoverable gas resources may be found in offshore areas and frontier onshore areas of Alaska.<sup>1</sup>

Figures 5 and 6 show the downward trend of recent estimates of recoverable reserves, and show the estimated onshore and offshore fractions of reserves for each projection.

While petroleum and natural gas constitute three-quarters of the Nation's present energy supply, the remaining combined resource base for these two fuels has been estimated by the Energy Research and Development Administration (ERDA) to be less than that for the next largest domestic energy source—coal.<sup>2</sup> (See figure 7.) ERDA projections also suggest that domestic production of oil has already peaked, and that domestic production of natural gas will peak in about a decade, even assuming enhanced production techniques. (Figure 8.)

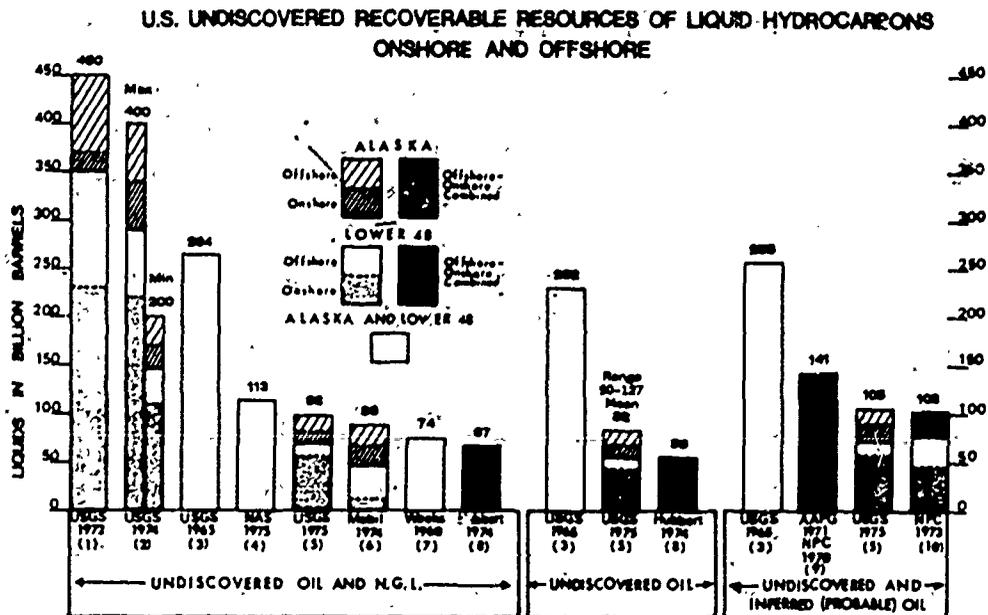
If present estimates withstand the test of actual drilling experience, Outer Continental Shelf oil and gas production may reach 2 to 4 million barrels a day in 10 or 15 years, a substantial increase from the 1 million barrels a day now produced from OCS resources. How long the total domestic petroleum resources will last, however, depends upon both consumption and production levels. Estimates suggest, for example, that at the 1974 domestic consumption level of 5.92 billion barrels, the total U.S. reserves would last 19 to 32 years, but at the 1974 domestic production level these reserves would last 37 to 62 years.

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<sup>1</sup> United States Geological Survey, Circular 725, *Geological Estimates of Undiscovered Recoverable Oil and Gas Resources in the United States (1975)*.

<sup>2</sup> Energy Research and Development Administration, *A National Plan for Energy Research, Development and Administration*, June 1975.

Figure 5



- (1) Theobald and others, U.S. Geol. Survey Circ 650, 1972. Includes water depth to 2,500 m (8,200 ft).
- (2) U.S. Geol. Survey News Release, March 26, 1974. Includes water depth to 200 m (660 ft).
- (3) Hendricks, U.S. Geol. Survey Circ. 522, 1963. Adjusted through 1974. Includes water depth to 200 m (660 ft).
- (4) Nat'l. Academy of Sciences, "Mineral Resources and the Environment," 1975. (See National Research Council). Water depth not indicated.
- (5) U.S. Geol. Survey "Mean", Oil and Gas Branch Resource Appraisal Group, 1975. Includes water depth to 200 m (660 ft).
- (6) Mobil Oil Corp., Expected Value: Science, 12 July 1974. (See Gillette). Includes water depth to 1,830 m (6,000 ft).
- (7) Weeks, L.G., Geotimes, July-Aug., 1960. Adjusted through 1974. Water depth not indicated.
- (8) Hubbert, Senate Committee Report, 1974. Includes water depth to 200 m (660 ft).
- (9) Am. Assoc. Petroleum Geologists Mem. 15, 1971. Also National Petroleum Council, "Future petroleum provinces of the United States," 1970. Some areas are excluded from this estimate. Includes water depth to 2,500 m (8,200 ft).
- (10) National Petroleum Council, "U.S. Energy outlook -- oil and gas availability," 1973. Includes water depth to 2,500 m (8,200 ft).

Comparative estimates of oil resources in the United States.

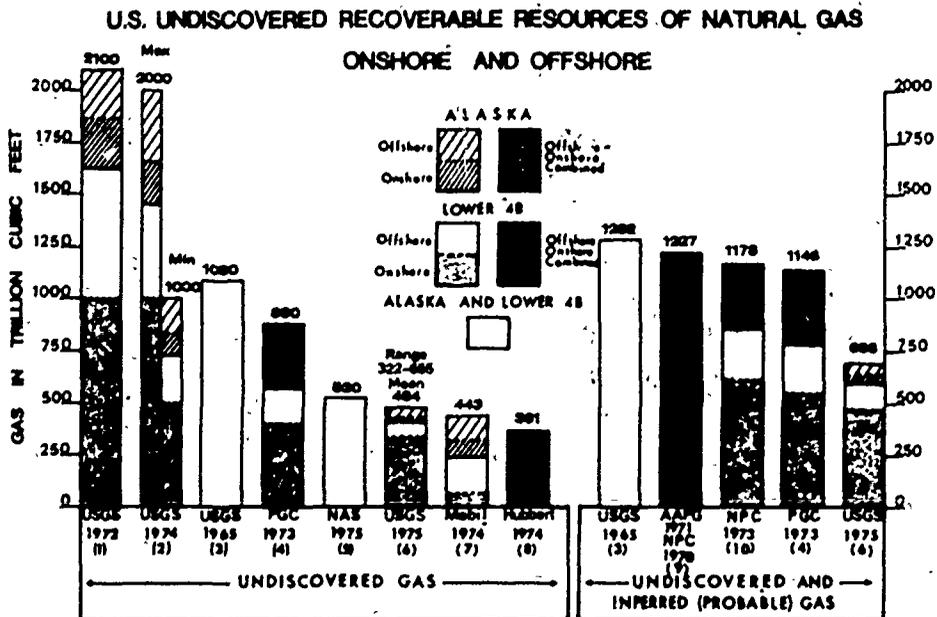
Source: U.S.G.S. Circular 725.

### *Importation of Oil and Gas*

Estimates of future U.S. reliance on foreign oil and gas imports are also highly variable. The Energy Research and Development Administration, for example, has estimated importation levels that would be needed under five different scenarios.

The two most extreme scenarios, as seen in figure 9, are scenario 0, which projects a quadrupling of imports by the year 2000, and scenario 1, which projects that by 1995 the United States would actually export significantly more oil and gas than it would import. Scenario 0 is based on the assumption that most historic supply trends continue into the future and that demand continues to be high, although a 40 percent greater energy efficiency for automobiles is achieved in 1980 because of a trend to purchase small cars. Scenario 1, on the other hand, is based on the assumption that enhanced recovery techniques increase oil and gas production; that geothermal and waste materials begin

Figure 6



- (1) Theobald and others, U.S. Geol. Survey Circ. 650, 1972. Includes water depth to 2,500 m (8,200 ft).
- (2) U.S. Geol. Survey News Release, March 26, 1974. Includes water depth to 200 m (660 ft).
- (3) Hedricks, U.S. Geol. Survey Circ. 522, 1965. Adjusted through 1974. Includes water depth to 200 m (660 ft).
- (4) Potential Gas Committee, "Potential supply of natural gas in the United States," 1973. Includes water depth to 460 m (1,500 ft).
- (5) Nat'l. Academy of Sciences, "Mineral Resources and the Environment," 1975. (See National Research Council). Water depth not indicated.
- (6) U.S. Geol. Survey "Mean", Oil and Gas Branch Resource Appraisal Group, 1975. Includes water depth to 200 m (660 ft).
- (7) Mobil Oil Corp., Expected Values: Science, 12 July 1974. (See Gillette). Includes water depth to 1,830 m (6,000 ft).
- (8) Hubbert, Senate Committee Report, 1974. Includes water depth to 200 m (660 ft).
- (9) Am. Assoc. Petroleum Geologists Mem. 15, 1971. Also National Petroleum Council, "Future petroleum provinces of the United States," 1970. Some areas are excluded from this estimate. Includes water depth to 2,500 m (8,200 ft).
- (10) National Petroleum Council, "U.S. energy outlook -- oil and gas availability," 1973. Includes water depth to 2,500 m (8,200 ft).

Comparative estimates of natural gas resources in the United States

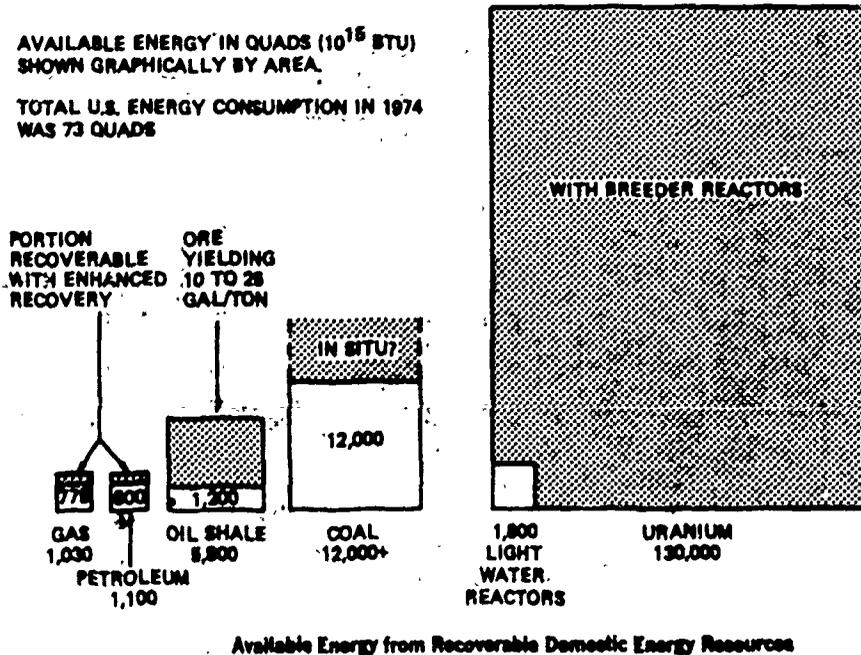
Source: U.S.G.S. Circular 725.

to play an important role in the Nation's energy economy; that technologies are developed to insure greater efficiency in residential, commercial, industrial and transportation utilization of energy resources; and that greater efficiency is also achieved in transmitting and distributing electricity.

#### *OCS Oil and Gas Related Facilities*

The accelerated Interior Department OCS leasing program (see Figure 10), under which the Department intends to hold six lease sales per year beginning in 1976, is expected to have major impacts on coastal areas. In addition to OCS land off the California coast and in the Gulf of Mexico, "frontier" or unexplored areas in the Gulf of Alaska and off the Atlantic Coast are expected to be included in the leasing

Figure 7



Source: ERDA, A National Plan for Energy Research, Development and Demonstration

program. (See figure 11.) These "frontier" areas do not presently have OCS production-related facilities.<sup>3</sup>

As previously stated, the accelerated leasing program may well result in construction of a large number of onshore support related facilities. While the Interior Department originally estimated that 140 onshore facilities and 200 pipelines would be needed, it has subsequently asserted that specific predictions cannot be made. The final environmental impact statement on the expanded program, noting that the program will "eventually" necessitate new onshore facilities, suggests that the frontier areas will be hardest hit:

In nearly all cases, these facilities will be new to frontier area coastlines. The amount of acreage these facilities will occupy in all OCS areas cannot be estimated at this time, since these facilities are planned as need arises, i.e. on the production estimated from exploratory drilling results. . . . The use of this unknown amount of acreage in each OCS area will represent a commitment of the land over the time period of production of that region.<sup>4</sup>

<sup>3</sup> The lease sale offering 1.3 million acres off Southern California occurred on Dec. 11, 1975. Recently the Department's Bureau of Land Management issued a list of the OCS lands off New Jersey and Delaware that it is considering leasing in May 1976. These lands comprise 880,000 acres stretching from off the coast of Tom's River, N.J., down to Rehoboth, Del. The first Gulf of Alaska sale has been delayed until January 1976.

<sup>4</sup> U.S. Department of Interior, Final Environmental Impact Statement on Proposed Increase in Oil and Gas Leasing on the Outer Continental Shelf. FES-75, released July 7, 1975, vol. 2, p. 280.

Figure 8

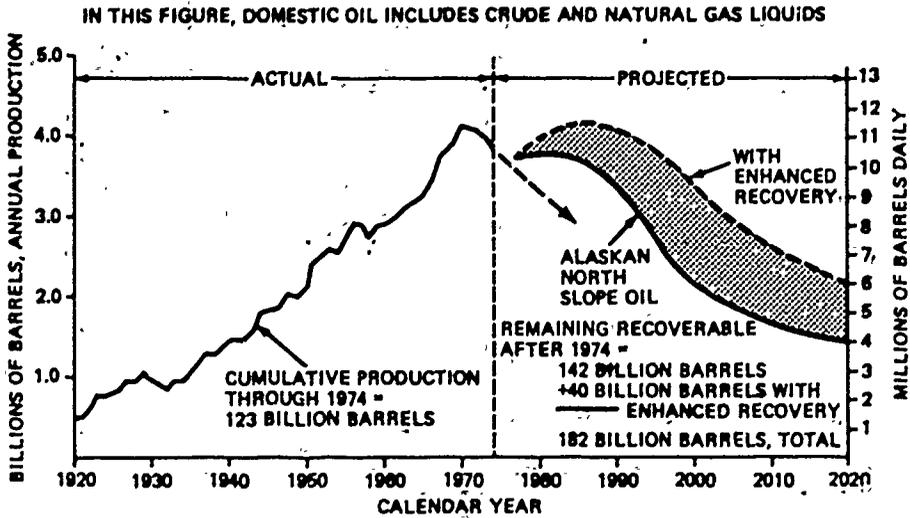
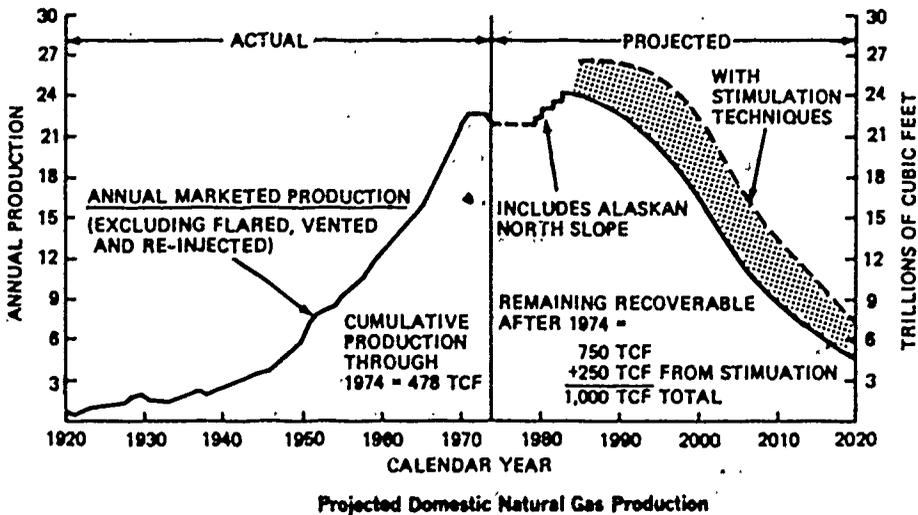


Figure 1. Projected Domestic Oil Production



Source: ERDA, A National Plan for Energy Research, Development and Demonstration

While uncertainties about the actual location of OCS production lands do, indeed, make predictions difficult, the Council on Environmental Quality (CEQ) has attempted to project the number of new facilities that would be needed in certain regions. A recent Council study,<sup>5</sup> based on work by Resource Planning Associates, involved

<sup>5</sup> "OCS Oil and Gas—An Environmental Assessment: A Report to the President by the Council on Environmental Quality," April 1974, p. 115. It is interesting to note that the chapter in the Interior Department's draft impact statement on OCS onshore impacts is a summary of the CEQ report. The final impact statement dropped the chapter on onshore land-use impacts.



Figure 11.



selection of eight sample sites which could become OCS oil and gas receiving points if the adjacent OCS frontier areas are productive. The study found that a substantial number of new OCS support facilities would be needed in many areas. For example, high OCS development off Charleston, S.C., could lead to construction of three refineries, two gas processing plants, and two to three petrochemical complexes by 1985. By 2000, five to six refineries, eight gas processing plants and seven to eight petrochemical complexes would be needed.<sup>6</sup>

In commenting on the Interior Department's draft environmental impact statement, the Environmental Protection Agency said:

The present pre-lease procedures do not provide adequate and timely acquisition of the necessary information for comprehensive state and local planning. DOI should accept the responsibility for adequately informing state and local governments as to coastal facilities and services likely to be needed in connection with OCS activities.<sup>7</sup>

#### *Secondary Effects of OCS Development*

Although OCS development could result in water pollution which would damage shorelines and beaches, its major onshore impact would result from new facilities related to OCS development and accompanying secondary growth. Depending on degree of control, this additional growth could result in substantial increases in air and water pollution; disruption of wetlands; and other land-use and environmental problems characteristic of rapid urbanization.

The Council on Environmental Quality report predicted that population increases related to OCS development will vary substantially—

<sup>6</sup> Critics of the CEQ study have charged that its assumption that all new oil is processed in new facilities near where the oil is produced greatly overstates the amount of OCS-related development likely to take place. Preliminary work done by Braddock, Dunn and McDonald for the Office of Technology Assessment tends to support this criticism.

<sup>7</sup> Final Environmental Impact Statement, *op. cit.*, p. 389.

from 20,000 to 140,000 in some areas. More significant than the absolute number of new population, however, would be the effect of OCS development on the assimilative capacity of the region. The report found, for example, that high OCS development adjacent to Charleston, S.C., could nearly double the current population in a decade,<sup>8</sup> while in Alaska affected local areas could experience a 20-fold population increase by the year 2000. In some areas, however, the Council predicted population increases of less than 5 percent of the current population.

Both positive and negative effects of OCS development have been predicted for the economy of adjacent coastal regions. There is likely to be increased investment, tax revenues and employment opportunities in the area. At the same time, increases in population growth may increase government service expenditures. Recreation industries and commercial fisheries may be adversely affected. Farmland may go out of production because of increased taxes. Although there may be an increase in employment, there may not be a decrease in the unemployment rate, because technical jobs are likely to go to newcomers and more workers may be attracted to the area than can be employed.

Benefit/cost studies conducted in two States<sup>9</sup> that already have OCS development concluded that such development would result in a loss of revenue for the State government. The State of Texas predicted that accelerated leasing of OCS lands would contribute \$48.9 million in tax and other revenues, but that the cost in increased Government services would be \$111 million. A Louisiana study found that OCS development in 1972 caused the State a net loss of \$38 million.

The American Petroleum Institute has recently sponsored a study of the onshore impacts of developing a portion of the Baltimore Canyon off the coasts of New Jersey, Delaware, and Virginia. It was estimated that taxes generated in potential areas of major development might cover as little as one-half of the local government costs for additional public services and facilities.<sup>10</sup>

### *Deepwater Ports*

The United States does not have any port facilities capable of accommodating supertankers. Because of the economies of scale involved, supertankers are carrying an increasingly large part of petroleum and natural gas in world trade. In 1974, Congress passed the Deepwater Ports Act, which for the first time established a Federal licensing procedure for construction and operation of deepwater ports beyond the territorial sea limits of the States. U.S. Coast Guard regulations for application to construct deepwater ports are not yet promulgated in final form. However, there has been substantial advance planning of such ports. The three most likely candidates for construction are the Louisiana Offshore Oil Port, the Texas Seadock

<sup>8</sup> See, however, footnote 6 on previous page.

<sup>9</sup> Office of the Governor of Texas, "Benefits and Costs to State and Local Governments in Texas Resulting From the Offshore Petroleum Leases on Federal Lands" (report 0025-029-117-NR), Nov. 1974, and Gulf South Research Institute, "Offshore Revenue Sharing": An Analysis of Offshore Operations on Coastal States", 1974. In discussing these studies, the Interior Department's OCS impact statement suggests that they are based on questionable assumptions and methodologies. Speaking of the Texas study, for example, the Department said, "If the methodology of the study were extended to other industries, it would seem that . . . all industries, not only Federal offshore petroleum related industries, impose net costs on the Texas governments."

<sup>10</sup> Platts OILGRAM News Service, Thursday, Oct. 23, 1975. The API report, *Mid-Atlantic Regional Study*, was completed in October 1975 by Woodward-Clyde Consultants.

project, and Ameriport off the Louisiana and Texas coast. Other proposed sites include areas off Galveston-Freeport, Texas; the Mississippi Delta; the Delaware Bay; New Jersey, and Maine.<sup>21</sup>

#### *Liquefied Natural Gas Storage Facilities*

In 1973, the Federal Power Commission estimated that there would be a 1,500-fold increase in the amount of LNG imported into the United States between 1973 and 1980. Presently, there are over 200 LNG storage facilities in operation or construction throughout the United States, and many others are planned. Applications are pending for construction and/or operation of major new LNG facilities in such populous ports as Boston, Providence, New Orleans, and Los Angeles. (See Figure 12.)

However, actual importation of LNG is lagging far behind the FPC projections. In 1974, the FPC reported zero imports of LNG into the United States, compared with 4 billion cubic feet in 1973 and an anticipated 0.1 trillion for 1975. The Oil and Gas Journal has attributed the zero imports to delays by the FPC in approving new projects. Significant delays on operation of other LNG facilities, scheduled to begin operation in the late 1970's and early 1980's, have also been noted.

The 1973 Staten Island explosion of an empty LNG tank has raised significant questions about the wisdom of locating LNG facilities near population centers.

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<sup>21</sup> See "Oil Importers await a superport signal," *Business Week*, Dec. 8, 1975, for the current status of deep water port applications.

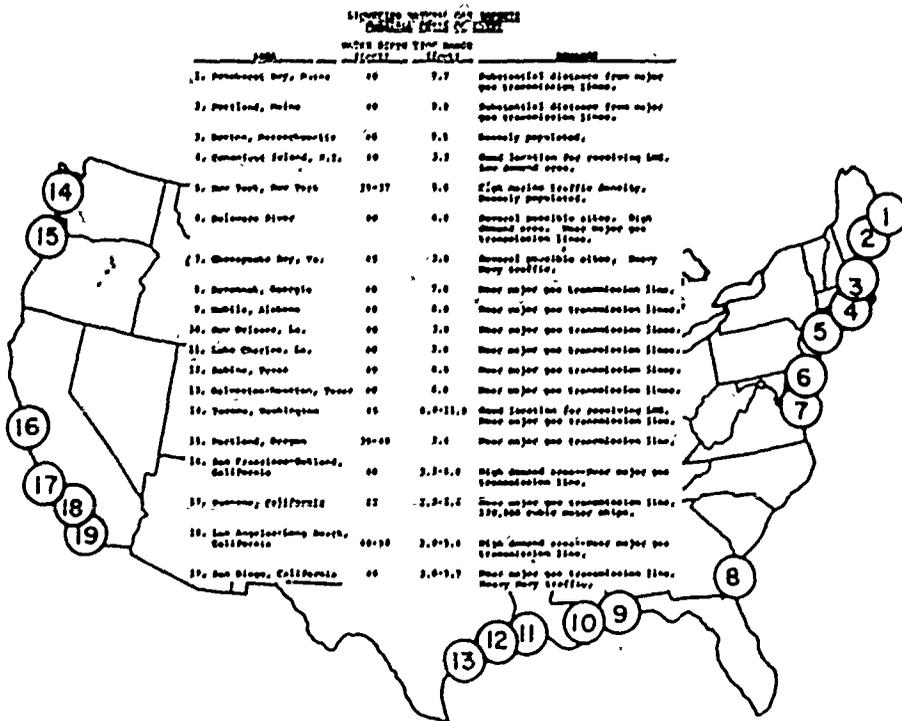


Figure 12. Potential Receiving Posts for Liquefied Natural Gas.

Source: *Energy Alternatives: A Comprehensive Analysis*, University of Oklahoma, 1975

## V. THE COASTAL ZONE MANAGEMENT ACT OF 1972

The Coastal Zone Management (CZM) Act of 1972<sup>1</sup> provides Federal impetus for eligible States<sup>2</sup> to undertake comprehensive management of coastal zone resources. The act authorizes partial Federal support of coastal State management processes that meet certain broad requirements.<sup>3</sup> Within the requirements, considerable flexibility exists for States to tailor management programs to their own needs.

The act gave the Department of Commerce overall responsibility for administering the grant program. An Office of Coastal Zone Management has been established inside the National Oceanic and Atmospheric Administration (NOAA), a major Commerce agency, to assist States in developing their programs. NOAA was selected because of its existing expertise in coastal and oceanic resource matters.

The rationale for Federal assistance in this area centers on the economic, environmental, and social importance of the U.S. coastal zone to the Nation as a whole. Partial Federal support is necessary to encourage management of coastal resources because of the political and revenue constraints incumbent upon the majority of coastal States.

### *Purpose*

The primary purpose of the act is to improve decisionmaking that significantly affects the coastal zone. Decisions made in the private marketplace often fail to sufficiently take into account the full "costs" or impacts of actions upon coastal recreational and environmental resources. Reasons for this are: (1) Some associated costs are outside of the normal market pricing system; and (2) the time periods considered by decisionmakers are often too short, causing some of the long-term costs to be ignored.

For example, wetlands that serve as spawning grounds for fish have often been filled in for industrial development. Alternative sites may have been available whose extra costs to industry are less than the value of fish resources lost on the wetland sites. In the absence of regulation, industry has lacked the incentives to choose the alternative sites, even though they may be preferable from society's standpoint.

In light of the developmental pressures mentioned earlier in the report, this problem of "market failure" only threatens to become more acute in the future.

Correcting "market failure" requires some government action. Efforts by State and local governments, however, to provide for rational coastal development have been hampered by a piecemeal approach to regulation and by only a partial understanding of existing coastal resources.

<sup>1</sup> Public Law 92-583. See app. 3.

<sup>2</sup> Eligible are those States bordering on the Atlantic and Pacific Oceans, the Gulf of Mexico, and the Great Lakes and U.S. territories.

<sup>3</sup> See secs. 305(b) and 306 (c), (d), and (e) of the Coastal Zone Management Act (in app. 3).

In addition, full weight has not always been given to the interests of those living outside the jurisdiction of the regulatory authority, due to local political pressures or a lack of information. For instance, the recreational and esthetic value of an undeveloped coastal area may be underestimated by a local government because users do not pay for their benefits or because many of the users come from a different locale. The result might be rezoning of the area for intensive development when, for the benefit of the adjacent region as a whole, it should be preserved as close to its natural state as possible. An opposite example might be the arbitrary exclusion of all heavy industrial facilities from the coastal zone.

The Coastal Zone Management Act aims at improving the present situation by providing incentives for States to develop comprehensive coastal planning and to provide for the public interest in the regulation of coastal resources. One incentive is the provision of up to two-thirds Federal financial assistance for the development, and later the administration of coastal zone management programs. The second incentive for participation is that the act requires that Federal actions affecting the coastal zone be consistent with management programs that have been approved by the Secretary of Commerce. The only exceptions are those actions "necessary in the interest of national security," or those actions which the Secretary of Commerce determines to be consistent with the objectives of the Coastal Zone Management Act.<sup>4</sup>

In order to take advantage of these incentives, however, States choosing to participate in the program must develop a coastal zone management process that gives consideration to national and regional interests.

#### *Provisions Relevant to Energy Facility Siting*

Although the original act does not single out energy facilities for special consideration, many of its general provisions are pertinent to planning for coastal energy facility siting. Also, the rules and regulations promulgated pursuant to the act require a management program to consider energy generation and transmission.<sup>5</sup>

Specifically, section 305(b) of the act states that management programs shall contain:

- (1) An identification of the boundaries of the coastal zone subject to the management program;
- (2) A definition of what shall constitute permissible land and water uses within the coastal zone which have a direct and significant impact on the coastal waters;
- (3) An inventory and designation of areas of particular concern within the coastal zone;
- (4) An identification of the means by which the State proposes to exert control over the land and water uses referred to in paragraph (2) of this subsection, including a listing of relevant constitutional provisions, legislative enactments, regulations, and judicial decisions;
- (5) Broad guidelines on priority of uses in particular areas, including specifically those uses of lowest priority;
- (6) A description of the organizational structure proposed to implement the management program, including the responsibilities and interrelationships of local, areawide, State, regional, and interstate agencies in the management process.

<sup>4</sup> Sec. 307(d).

<sup>5</sup> Federal Register, vol. 40, No. 6, p. 1655.

Concerning the third requirement, the rules and regulations stipulate that the inventory shall include "those areas especially suited for intensive use or development"<sup>6</sup> and "areas of unique geologic or topographic significance to industrial or commercial development."<sup>7</sup> Also to be included, of course, are environmentally sensitive areas. Thus the inventory could include potential sites both best and least suited for energy facilities.

Fulfilling the fourth requirement would involve reviewing those legal measures pertaining to energy facility siting in the coastal zone.

On the fifth requirement the rules and regulations state:<sup>8</sup>

The program should establish special procedures for evaluating land use decisions, such as the siting of regional energy facilities, which may have a substantial impact on the environment. In such cases, the program should make provision for the consideration of available alternative sites which will serve the need with a minimum adverse impact.

#### *"National Interest" and "Federal Consistency" Provisions*

Last, there are two additional provisions of the act that have special importance for facility siting. These are the "national interest" and "Federal consistency" provisions.

The national interest provision concerns the integration of more than State interests into the management of coastal resources. Prior to approving a management program, the Secretary of Commerce must be satisfied that it "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" and that it provides "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."<sup>9</sup> The rules and regulations make explicit, in an interesting way, the requirement of giving adequate consideration to the "national interest."

The Office of Coastal Zone Management (OCZM) is to encourage "Federal agencies to develop policy statements regarding their perception of the national interest in the coastal zone and make these available to the States."<sup>10</sup> On their parts, the States are to consult with these Federal agencies and then make reference in their management programs "to the views of cognizant Federal agencies as to how these national needs may be met in the coastal zone of that particular State."<sup>11</sup>

The rules and regulations list energy production and transmission as one of eight classes of requirements<sup>12</sup> "which are other than local in nature." Some facilities<sup>13</sup> needed to meet energy requirements are listed along with cognizant Federal agencies.<sup>14</sup>

Once a management program has been approved by the Secretary of Commerce, the Federal consistency provision comes into effect. This provision requires that any activity of a Federal agency, a private

<sup>6</sup> Federal Register, vol. 38, No. 229, p. 38046.

<sup>7</sup> Federal Register, vol. 40, No. 6, p. 1687.

<sup>8</sup> Federal Register, vol. 40, No. 6, p. 1688.

<sup>9</sup> CZM Act of 1972; Public Law 92-583; sec. 306 (c) and (e).

<sup>10</sup> Federal Register, vol. 40, No. 6, p. 1688.

<sup>11</sup> *Ibid.*

<sup>12</sup> *Ibid.*

<sup>13</sup> Oil and gas wells, storage and distribution facilities, refineries, all types of electric powerplants, and deepwater ports.

<sup>14</sup> Federal Energy Administration, Federal Power Commission, Bureau of Land Management, Nuclear Regulatory Commission, Maritime Administration, Geological Survey, Department of Transportation, Corps of Engineers.

party requiring a license or permit from a Federal agency, or a State or local government utilizing Federal assistance shall be "consistent" with the approved State management program.<sup>15</sup> Virtually all facilities used for energy production and transmission require some type of Federal permit or license.<sup>16</sup> Thus having an approved management program gives a coastal State strong powers over coastal energy facility siting that are backed up by Federal law. This potential power in turn provides strong incentives for Federal agencies to provide input into coastal management programs as they are being developed and to carefully review them when pending before the Secretary.

The rules and regulations do not elucidate the consistency requirement. Currently, this provision is untested, as no State yet has an approved management program. Judicial action may be required to determine its full implications.

### *Status of State Management Programs*

All 30 coastal States and three of four eligible territories are currently developing coastal zone management programs under section 305 of the CZM Act. One State, Washington, has received preliminary approval of completed portions of its plan. Four States—California, Maine, Michigan, and Oregon—are nearing completion. Seventeen of the remaining 25 States are in their second year of program development and the other eight in their first. Program development has been carried on under grants awarded on a matching funds basis—one-third State and two-thirds Federal. Eighty percent of the Federal funds are awarded on the basis of a formula that involves population in coastal counties and length of coastline.

Grants to date are listed in Table 1.

TABLE 1.—COASTAL ZONE MANAGEMENT GRANT AWARDS

State	Federal share	Matching share	Total program
SEC. 305 (FISCAL YEAR 1974)			
Rhode Island.....	\$154,415	\$77,208	\$231,623
Maine.....	230,000	115,000	345,000
Oregon.....	250,132	169,567	419,699
California.....	720,000	928,653	1,648,653
Mississippi.....	101,564	50,782	152,346
South Carolina.....	198,485	100,015	298,500
Washington.....	388,820	194,410	583,230
Massachusetts.....	210,000	105,000	315,000
Ohio.....	200,000	166,300	366,300
Alaska.....	600,000	360,000	960,000
Texas.....	360,000	191,648	551,648
Wisconsin.....	208,000	146,000	354,000
Pennsylvania.....	150,000	75,000	225,000
Minnesota.....	99,500	49,750	149,250
Michigan.....	330,486	203,961	534,447
Maryland.....	280,000	185,765	465,765
Connecticut.....	194,285	130,359	324,644
New Hampshire.....	78,000	39,000	117,000
Hawaii.....	250,000	125,000	375,000
Georgia.....	188,000	115,400	303,400
Delaware.....	166,666	83,334	250,000
Florida.....	450,000	236,000	686,000
Alabama.....	100,000	50,000	150,000
North Carolina.....	300,000	200,000	500,000
Illinois.....	206,000	103,000	309,000
Louisiana.....	260,000	134,090	394,090
Puerto Rico.....	250,000	125,000	375,000
New Jersey.....	275,000	137,500	412,500
<b>Total.....</b>	<b>7,199,353</b>	<b>4,597,742</b>	<b>11,797,095</b>

<sup>15</sup> CZM Act of 1972; Public Law 92-583; sec. 307 (c), (d).

<sup>16</sup> See appendix 2 of this report.

TABLE 1.—COASTAL ZONE MANAGEMENT GRANT AWARDS—Continued

State	Federal share	Matching share	Total program
SEC. 305 (FISCAL YEAR 1975)			
Alabama.....	120,000	60,000	180,000
California.....	900,000	450,000	1,350,000
Georgia.....	349,250	191,745	540,995
Guam.....	143,000	71,500	214,500
Hawaii.....	400,000	200,000	600,000
Illinois.....	384,000	192,000	576,000
Indiana.....	220,000	110,000	330,000
Louisiana.....	342,000	171,000	513,000
Maine.....	328,870	164,435	493,305
Maryland.....	400,000	200,000	600,000
Massachusetts.....	382,000	204,812	586,812
Michigan.....	400,000	200,000	600,000
Minnesota.....	150,000	75,000	225,000
Mississippi.....	127,038	63,519	190,557
New Hampshire.....	120,000	60,000	180,000
New Jersey.....	470,750	235,375	706,125
New York.....	550,000	275,000	825,000
North Carolina.....	503,000	251,500	754,500
Oregon.....	298,811	154,406	453,217
Pennsylvania.....	225,000	112,500	337,500
Puerto Rico.....	350,000	175,000	525,000
Rhode Island.....	304,440	152,227	456,667
South Carolina.....	230,000	117,794	347,794
Texas.....	620,000	448,401	1,068,401
Virgin Islands.....	90,000	45,000	135,000
Virginia.....	251,044	125,522	376,566
Wisconsin.....	340,600	171,700	512,300
Total.....	8,999,803	4,687,036	13,686,839
SEC. 305 (FISCAL YEAR 1976 TO DATE)			
Alaska.....	1,200,000	600,000	1,800,000
Connecticut.....	290,000	145,000	435,000
Delaware.....	345,000	172,500	517,500
Florida (pending).....	696,000	348,000	1,440,000
Ohio (pending).....	500,000	250,000	750,000
Washington.....	500,000	250,000	750,000

A number of States have complained that they might have been better prepared to face present pressures for energy development had not Federal funding for the program been severely limited for over a year by the Office of Management and Budget. Although the CZM Act was signed into law on October 12, 1972, the Office of Coastal Zone Management functioned on only a small amount of "reprogrammed" NOAA funds until December of 1973. Pressure from Congress and the interested public finally led to a supplemental appropriation being introduced and passed in late 1973.

During a November 1974 White House meeting with coastal Governors on the prospective OCS oil and gas development, President Ford endorsed the coastal zone management program and proposed a \$3 million supplemental appropriation for fiscal year 1975. This is to be added to the program's \$9 million regular appropriation for program development in order to expedite State preparation for potential OCS impacts. This request was subsequently granted by Congress.

States in their first year of program development are typically devoting part of their efforts to making an inventory of the existing energy facility situation in their coastal zone. This involves determining the location of existing facilities, how they tie in with the overall State and regional energy systems, the technology involved, and to some extent the kinds of impacts already incurred. It also involves surveying existing State and Federal regulations that affect coastal siting. Finally, contacts are being developed with private industry and

State and Federal agencies that regulate or provide information on energy facility siting.

States in their second year are turning toward energy supply and demand economics and the possible role of conservation. States are identifying gaps in regulations that will prevent the State from exercising the land and water use authority it needs in order to carry out its management program. Finally, the States are seeking the views of various Federal agencies on national interest questions surrounding energy facility siting in their coastal zone.

In general, it will take at least a third year for the States to pull their efforts together and to gain State and Federal approval of the proposed management programs.<sup>19</sup> Those States that are either currently seeking Federal approval of their programs or nearing this stage, such as Washington and California, got an early start on coastal zone management because of special State legislation.

Although considerable efforts are underway, a widely held view of those developing the State programs is that the available planning resources are quite small in comparison with the large need and requirements for coastal energy facility planning.

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<sup>19</sup> S. 586, which is discussed in Section VII, would amend the CZM Act to give States a fourth year for program development, if needed.

## VI. AMENDING THE COASTAL ZONE MANAGEMENT ACT IN ORDER TO PROVIDE EXTRA EMPHASIS ON ENERGY FACILITY SITING

The Nation is currently pursuing two objectives with great potential for conflict. On the one hand, there is the objective of protecting resources and promoting rational development in the coastal zone, as espoused in the CZM Act of 1972. On the other hand, there is the current objective of reducing dependence on foreign energy sources. The ideal Federal solution would not only minimize conflicts between these two national objectives and insure that they are balanced in proper proportions, but would also lead to greater fulfillment of each objective taken separately.

### *The Problem in Summary*

The consequences would be quite serious if the Federal Government continued its push for energy development but at the same time maintained the status quo in its support of planning for, regulating, and ameliorating the adverse effects accompanying such development in the coastal zone. Many coastal States will delay development through court action or, more importantly, through refusing to site the requisite energy facilities. Faced with uncertainties in timing and ability to procure onshore facility siting, private oil companies will bid less for public resources, thereby lowering the return to the Treasury. Limited financial resources devoted to coastal zone management, which are quite small when compared with the magnitude of overall new investment in the coastal zone, would clearly not be sufficient for managing the increased energy development. To meet the growing need, such resources (unless increased) would have to be shifted away from other concerns such as shoreline erosion, fisheries management, and housing development. The lack of sufficient planning funds could undo the whole public sector effort to make sure environmental and social costs are taken into account in site selection, as well as private costs to industry.

Finally, leaving States entirely on their own to ameliorate adverse impacts would not only be unjust in the cases where they are called upon to play a national role in energy supply but also contradictory to a goal of the CZM Act—"to preserve, protect, and where possible, to restore or enhance the resources of the Nation's coastal zone for this and succeeding generations."<sup>1</sup> The lack of Federal ameliorative funds coupled with the political and revenue constraints incumbent upon State and local governments would probably mean that little would be done about many of the impacts. The result of course would be greater damage to the coastline and increased local resistance to siting.

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<sup>1</sup> Sec. 303 (a) of the CZM Act (in Appendix B).

Two points need further amplification—the limited nature of present coastal zone management resources and the bargaining strength of coastal State and local governments in delaying energy development not perceived to be in their interest.

An interesting question is how present coastal zone management resources compare with annual energy facility investments to be made in the coastal zone over the next decade. Remembering that rational siting requires public-sector analysis that takes into account all costs and not just those faced by industry, it certainly would not appear to be excessive if management resources for coastal energy facility siting were 1 percent of total energy facility investment costs. Yet a simple calculation shows that such resources, under the present scheme, would almost certainly be less than one-thousandth of the value of coastal energy facility investment.<sup>3</sup>

Because of ultimate control over land use, a State that perceives an energy facility not to be in its own interest has a strong bargaining position vis-a-vis the Federal Government, which may be actively promoting the facility because of the energy independence objective. Additional bargaining strength can be derived by these governments from the National Environmental Policy Act, when there is evidence that the Federal Government has performed an inadequate analysis of the environmental effects of proposed energy development. The question is whether States will actually draw upon these powers when they feel that activities presumed to be in the national interest are not in theirs.

In the case of the first major Federal OCS leasing in a frontier area, the answer appears to be an emphatic "yes."<sup>4</sup> In response to OCS leasing scheduled to take place off its southern coast in late 1975, California has adopted a law prohibiting new pipelines from crossing the State's territorial sea through September 30, 1978 or until the State has an approved CZM program, whichever comes sooner. In addition, both the city of Los Angeles and the State of California sought an injunction against the leasing, pending judicial review of the adequacy of the Department of the Interior's attempts at analyzing the environmental impacts.<sup>4</sup>

<sup>3</sup> As mentioned earlier in this report, ERDA has estimated the capital requirements for new energy facility investments to be \$450-\$600 billion over the next decade. Business Week (Sept. 22, 1975) estimated this figure to be \$900 billion. In proposing a new energy independence finance corporation, President Ford estimated \$600 billion. In light of the various statistics given in the beginning of the Summary, at least 30% of this investment will be located in the coastal zone or have important effects upon this area. Using the figure of \$600 billion and the conservative estimate of 30% implies that at least \$18 billion per year of new energy facilities will be a concern of the coastal zone management program.

The maximum annual resources of this program will be available when all the states have approved management programs. Assuming this happens and that the full amount authorized for the program is appropriated, the total resources available would be less than \$45 million. (Current resources, while all the programs are still under development, are less than \$20 million, including the extra \$3 million proposed by President Ford.) Considering all the other concerns of coastal zone management, no more than one third of these resources, or \$15 million, could be devoted to energy facility siting. \$15 million is less than 1/1000 of the \$18 billion of coastal energy investment.

<sup>4</sup> See "State, Local, and Citizen Involvement" in the summary for more examples of State reaction to Federal energy plans.

<sup>4</sup> Interior's *Final Environmental Statement* on the Southern Californian lease contains many perplexing statements. For instance, concerning the coastal zone it states "The land based operations of the exploratory drilling phase will increase local traffic, add exhaust emissions into the air and will increase the noise level in proximity to the operational sites. *No adverse impact will result from those operations*" (pg. 368, vol. 2; emphasis provided). Legal action, however, has not been successful to date in delaying or halting leasing.

It should be noted that siting stalemates can also arise over energy facilities that are not a part of OCS development. The crux of the problem is that in many cases the energy supply alternatives may have more associated adverse effects than continuing to rely on imported oil. California already has a proposition on the 1976 ballot that would put a moratorium upon the construction of new nuclear plants until environmental uncertainties surrounding such plants are more fully resolved.

### *Outline of a Solution*

Balancing the objectives of protecting land and water resources and promoting domestic energy development requires a public sector process that weighs both the "internal" costs faced by industry and the "external" costs faced by society, that are associated with various energy facility siting alternatives. Ideally, the outcome of the process should be the determination of:

(1) whether the benefits provided by the facility outweigh the sum of internal and external costs, or whether in light of considerable external costs more emphasis should be placed on conservation to reduce the need for such facilities; and

(2) the optimal site for the facility on the basis of minimal external plus internal costs.

Finally, if benefits outweigh total costs, the public process should actually lead to a facility being located on the least costly site.

To be successful the process must be based on comprehensive land and water use planning with the capability to evaluate the external costs of the various sites and to choose the least costly alternative. Because State and local governments are likely to retain ultimate control over siting, the process must be capable of providing ameliorative funds to government entities when the least costly site still involves net adverse impacts. Obviously, the provision of these funds would also foster the objective of protecting land and water resources if the funds are required to be spent for this purpose.

To date, only the coastal zone management program contains the basis for the comprehensive planning and intergovernmental involvement mentioned above. This makes it an attractive, already existing framework in which to establish the public process just outlined. The near-term outlook for national land use planning is bleak.<sup>5</sup> However, since a large percentage of new energy facilities will be sited in the coastal zone and since adverse impacts to coastal resources are likely to be acute, dealing with the problem in the coastal zone would be a significant step toward resolving the problem nationally.

Although the coastal zone management program already has or will shortly have some of the components of the process outlined above, it lacks sufficient resources for energy facility siting planning and research. Nor can the Federal program provide ameliorative funds, or even loans, to State and local governments suffering adverse impacts from energy facility siting.

<sup>5</sup> As mentioned in the Introduction, the House land use bill, H.R. 3510, failed to be reported by the House Interior and Insular Affairs Committee.



## VII. S. 586—KEY PROVISIONS PERTAINING TO COASTAL ENERGY ACTIVITY

The Senate passed the Coastal Zone Management Act Amendments of 1975 (S. 586), by a vote of 73 to 15, on July 16, 1975. The contents of the bill that deal with coastal energy development<sup>1</sup> are listed below, with a brief explanation of their provisions. (Similar legislation is pending in the House of Representatives as H.R. 3981.)

### *OCS Leasing and Federal Consistency*

S. 586 would amend section 307(c)(3) of the Coastal Zone Management Act to make "leasing" as well as licensing and permitting by the Federal Government subject to the "Federal consistency" requirements of that act. While the bill does not explicitly state that OCS leasing is subject to the consistency requirement, the Senate Commerce Committee report<sup>2</sup> on the bill states that that is the purpose for the amendment. Thus, if a Federal license, lease or permit to conduct activity, including OCS activity, will affect land or water uses in the coastal zone, then it must be consistent with a State management program, if the program has been approved by the Secretary of Commerce, unless the Secretary finds that the national security interests of the United States requires otherwise.

Since "Federal consistency" is likely to apply to OCS leasing, the coastal States have an incentive to complete their coastal zone management programs as soon as possible. It also offers the Department of Interior, as well as other Federal agencies, an incentive to formulate their perspective of the national interest in the States' coastal zones, to work with the States in the development of their programs, and to carefully review the proposed programs when they are submitted to the Secretary of Commerce for approval.

### *Management of Coastal Energy Facility Siting*

Under the provisions of S. 586, States that are participating in the coastal zone management program would be required to establish a planning process to deal with energy facilities. The process would also require "planning for and management of the anticipated impacts from any energy facility." The bill provides that approval of the management programs would not be delayed for failure to include this planning and management process until September 30, 1978.

### *Coastal Energy Facility Impact Program*

A coastal energy facility impact program would be established to provide:

- (a) grants to coastal States for carrying out studies and planning for the likely consequences of coastal energy activity;

<sup>1</sup> Other provisions, such as those concerning public access to beaches and interstate agreements comprise only a small portion of the bill and are not germane to the central topic of this report. The whole text of S. 586 as passed the Senate appears in app. 4.  
<sup>2</sup> S. Rept. 94-277.

(b) loans when such activity leads to temporary adverse impacts, such as the need for extra public services that would strain a State's fiscal resources until the tax base increased to cover the cost of such services;

(c) bond guarantees<sup>3</sup> if a State or local government needs to borrow a large amount of funds on the open market in order to mitigate adverse coastal impacts resulting from OCS energy activity;

(d) grants to coastal States suffering net adverse impacts<sup>4</sup> in their coastal zone due to energy activity; and

(e) automatic grants to coastal States that permit the landing of, or are adjacent to the production of, oil and gas from the OCS. To be eligible such production or landing must exceed 100,000 barrels per day.

The loans and grants for study and planning and for adverse impacts would come from the Coastal Energy Facility Impact Fund, as would general administrative expenses. The bill authorizes up to \$200 million for the fund for each of the next 3 fiscal years. No more than 25 percent of the fund could be earmarked for study and planning grants.

#### *Coastal Energy Activity Covered*

The bill covers a broad range of energy activity which will likely have environmental, economic, and social impacts on the coastal zone. The activity would include "the exploration for, or the development or production of, energy resources or the location, construction, expansion, or operation of an energy facility." "Energy facilities" are defined as " \* \* \* new facilities or additions to existing facilities—

"(1) which are or will be directly used in the extraction, conversion, storage, transfer, processing, or transporting of any energy resource; or

"(2) which are or will be used primarily for the manufacture, production, or assembly of equipment, machinery, products, or devices which are or will be directly involved in any activity described in . . . (1) . . . and which serve, impact, or otherwise affect a substantial geographical area or substantial numbers of people."<sup>5</sup>

#### *Eligibility for Loans and Grants; Conditions on Expenditure*

To be eligible for a loan or grant, except automatic grants, a State must be developing or have an approved coastal zone management program. All loans and grants would have to be used for projects designed to ameliorate or compensate for adverse impacts, or for public services or facilities made necessary by the coastal energy development. For 5 years after the enactment of the bill, eligible States could receive grants or loans for net adverse impacts caused up to 3 years prior to the enactment.

<sup>3</sup> The bond guarantee provision is actually separate in S. 586 from the coastal energy facility impact program. However, because of similarity of purposes, it has been listed here among the program's provisions.

<sup>4</sup> The determination of net coastal impacts due to an energy facility is discussed in app. 5.

<sup>5</sup> Sec. 102(4) (j) of S. 586.

### *Net or Temporary Adverse Impacts*

A coastal State must satisfy the Secretary of Commerce that it has or is likely to suffer net adverse impacts in order to qualify for impact grants under guidelines, standards, and criteria established by the Secretary. Simply stated the Secretary must be satisfied that the costs of the energy activity over its anticipated life is or will be greater than the benefits derived from such an activity.

On the other hand impact loans will be permitted if the Secretary is satisfied that the coastal State will suffer temporary adverse impacts in the short run but will experience net benefits over the life of the energy activity. If later the State demonstrates that due to a change in circumstances it will suffer net adverse impacts, the loan, or any part of it, may be converted to a grant.

### *Automatic Grants*

The automatic grants would be paid on the basis of how much oil or gas is produced adjacent to or landed in the coastal State above a 100,000 barrels per day (or its gas equivalent) minimum.<sup>6</sup> A State would then receive 20 cents per barrel or its gas equivalent during the first year that production or landing exceeds the minimum, 15 cents during the second year, 10 cents during the third year, and 8 cents during each year thereafter that oil or gas is produced adjacent to or landed in that State.

The funds are limited to \$100 million per year through the fiscal year 1978; and limited to payment on the first 1½ million barrels, or its gas equivalent, per State per year through fiscal year 1988. After fiscal year 1988, there is no limitation on the size of the payments.

While the amount of these grants is tied to the amount of OCS petroleum produced or landed, the approach differs from revenue sharing in that the grant money:

- (1) would come from the general Treasury and not from OCS revenues;
- (2) would have to be spent for the purposes mentioned above; and
- (3) would be subject to annual legislative review through the appropriations process.

### *Coastal Impacts Review Board*

The bill would establish a coastal impacts review board the purpose of which would be to review applications for grants and loans and advise the Secretary of Commerce, who has the final responsibility for determining the amounts to be awarded. Eight persons would sit on the Board—one designated by the Secretary of Interior, one by the Council on Environmental Quality, two by the Secretary of Commerce, and four by the President from among nominees selected by the National Governors' Conference.

<sup>6</sup> The bill provides that 6,000 cubic feet of natural gas is equivalent to 1 barrel of crude oil.



## VIII. OTHER STATE ENERGY FACILITY SITING PROGRAMS

At least 18 States—including 12 coastal or Great Lakes States—have recently enacted energy facility siting programs. With one or two exceptions, however, most of these State programs are concerned almost exclusively with the siting of electric powerplants and transmission lines. Thus, most of the State programs do not provide the siting agency with the basis to make decisions within the context of a comprehensive plan which could balance various kinds of energy alternatives.

The typical State siting program has been designed to streamline State review of proposals to construct major new electrical facilities. The most commonly shared characteristics of these programs include the following:

(1) *Consolidation of requirements for review and separate approval of project proposals.*—In many States, separate permits, licenses or other certification by several State agencies may have been required prior to construction of electrical facilities. All recent facility siting legislation at the State level has consolidated at least some of these requirements, and, in several States “one-stop-shopping,” vesting sole and exclusive State authority to approve or disapprove such projects in one agency, has replaced multiple approvals.

(2) *State override or supercession of local requirements.*—Most of the new laws exempt proposals to site electrical facilities from any local zoning or other land use regulation, and prohibit local governments from requiring other approvals. This is a retrieval by the State of its authority, under its implied powers conferred by the tenth amendment of the Constitution, to regulate land use—authority which States have traditionally delegated to local governments.<sup>1</sup>

(3) *Environmental and land use assessment.*—There is considerable variation within State programs pertaining to environmental requirements. In all instances, minimization of adverse environmental impacts is an objective of the law. However, some States permit loosening of environmental regulations if necessary, while other States require air and water pollution requirements to be met in full by proposed projects. All of the new State programs require consideration of alternative sites for new facilities, with an analysis of relative environ-

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<sup>1</sup> Massachusetts' 1973 Powerplant Siting Act (Mass. Gen. Laws Ann. ch. 164, § 69G et seq. (Supp. 1975)) provides an interesting variation for State pre-emption of local zoning and land use regulatory authority. Under the Massachusetts statute, a State siting council is established to review local utility siting decisions. A utility may request the council to review a local decision to deny a facility, or to review conditions attached to an approval by a State or local agency which the utility feels are unreasonable. Most of the State utility siting laws prohibit local governments from exercising their State delegated land use authority in the case of utility siting decisions.

mental costs of each site. The degree to which coordination and conformity of electrical facility planning with other land-use planning is required also varies from State to State.

Table II summarizes key elements of the 18 State programs.

California, Minnesota, Maryland, and Montana have developed far more comprehensive energy siting programs. Perhaps the chief distinction between these programs and other State energy facility siting laws is the degree to which the State itself participates in the advance planning of facilities. In most States, the State simply reacts to proposals for new facilities that are initiated by utilities, while the most comprehensive programs allow the State to specify in advance those sites which are most likely to be approved.

Some of the key elements that occur in one or more of these four State programs are discussed below. (A more comprehensive analysis of these four programs can be found in appendix 1.)

#### *Alternative or Advance Consideration of Sites*

The four programs provide procedures whereby sites for new facilities may be selected several years in advance of actual construction. Although the details differ, this basic approach results in a preliminary certification of sites, and a subsequent ruling on specific proposed facilities. The California law, for example, requires utilities to specify three alternative sites for a proposed facility. Montana's program<sup>2</sup> requires the State to make a preliminary evaluation of sites which utilities identify in their long-range forecasts. Minnesota's law<sup>3</sup> establishes a "public planning process" to develop a series of criteria and standards for inventorying potential facility sites and transmission corridors throughout the State. Once the inventory is developed, a utility proposing a facility on another site must be able to demonstrate that the choice is consistent with the State siting criteria and standards.

#### *Early Notification by Utilities of Facility Plans*

These State programs require utilities to notify the State of intentions to construct new facilities in the earliest stages of the planning process. The purpose of this is to give the State ample time to conduct site evaluations without delaying needed construction of facilities.

#### *State Acquisition of Sites*

The Maryland Act<sup>4</sup> authorizes the State to acquire facility sites. The purpose of this is to have reserve sites available in the event that a site proposed by a utility is considered unsuitable, but the facility itself is needed.

#### *Relationship of State Siting Program to Coastal Zone Management*

The State siting programs are statewide in scope, but involve single-purpose planning—a fact that could result in considerable conflict with

<sup>2</sup> Mont. Rev. Codes Ann. §§ 70-801 to 70-823 (Supp. 1974).

<sup>3</sup> Minn. Stat. Ann. §§ 116c.51-116c.69 (Supp. 1974).

<sup>4</sup> Md. Nat. Res. Code §§ 3-301 to 3-307 (1974).

comprehensive management of coastal areas. Nearly all State-siting programs give the siting authority final responsibility for siting decisions—whether they occur in coastal areas or elsewhere.

California's program, however, specifically gives the State coastal commission veto powers over energy facilities proposed in the regulatory province of the State coastal commission. The act requires persons proposing facilities in this area to apply for and receive a separate approval from the Commission before construction can commence. The act also requires one of the three alternative sites proposed by utilities for new facilities to be outside the coastal zone.

#### *Overall State Energy Conservation and Development Programs*

California places its siting program within the context of an overall State energy program.<sup>5</sup> This overall program contains, among other things, an energy conservation element, which ultimately will establish requirements for buildings and construction-related activities for local implementation through subdivision regulations and an energy research and development program to develop alternative energy sources, to develop new conservation methods, and to improve demand forecasting.

#### *Independent State Assessment of Utility Demand Forecasts*

The California program gives the State considerable capacity to assess utility forecasts, and to develop its own forecasts. California's law requires utilities to use a common methodology developed by the State energy commission in making its projections, or to be able to justify use of an alternative method before the Commission. It also requires utility and State forecasts to reflect alternative energy scenarios, and to consider alternative conservation measures in developing forecasts. The public is given substantial opportunity to review and comment on the forecasts, and the forecasts must be submitted to the Governor and the legislature.

#### *Consideration of Environmental Factors*

Minnesota's act states 10 criteria, many of which are environmental in nature, which are to be considered in designating sites. The overall siting program is run by the State's environmental quality council, which consists of the heads of State agencies with environmental responsibilities or impacts, and four members of a State citizens' advisory committee on environmental quality. California's act gives special attention to critical environmental areas such as parks, natural areas, historic preservation districts and estuaries. New facilities cannot be located in such areas unless the siting commission finds that the facility would be consistent with the special value of the land area, that there would not be a substantial adverse environmental impact, and that the public agency in charge of such areas approves.

<sup>5</sup> Cal. Pub. Res. Code §§ 2500 *et seq.* (West Supp. 1975).



	II. Site designation														
	When made					Considerations					Suitability of sites				
	EIS on plan required	Establish guidelines, etc., for suitable sites	Planning measures for conservation of energy	Prior to and separate from application process	At time of plant approval	Met specifically made	Environment	Economic	Social	Other		Alternate sites	In accordance with State standards, plans, etc.	Merely "classified"	
Arizona					X	X							X		
Arkansas															
California		X	X	X				X	X	X	X		X		
Connecticut															
Florida					X	X							X		
Kentucky					X	X									
Mississippi	X				X	X							X	X	
Missouri		X	X	X	X	X		X	X	X	X		X	X	
Minnesota		X			X	X		X	X	X	X		X	X	
Mississippi					X	X									
Montana					X	X									
Nevada		X			X	X							X		
New Hampshire															
New Jersey					X	X									
New Mexico					X	X									
New York					X	X									
Ohio					X	X									
Oregon					X	X									
South Carolina					X	X									
Washington		X			X	X							X		

\* Chart prepared by Thomas E. Kane, Congressional Research Service.

- 1 The law only applies in the coastal zone and not where the Wetlands Act is in effect.
- 2 Utilities are primarily responsible for planning and forecasting.
- 3 Inventory within 2 years; strategies within 3 years; and design within 4 years.
- 4 Separate certificate entirely.
- 5 Site designation can also be made separately.
- 6 Utility can request a site study prior to submitting an application. The cost is \$10,000.

Table 11—State Energy Facility Siting Programs\*—Continued

	Application				III. Approval process					Alternative sites
	One-step procedure	Fee	Time to grant, deny or condition (mos.)	Environment	Impacts			Other		
					Economic	Social	Other			
Arizona.....	X	\$1,000 to \$10,000.....	6	X	X	X	X	X	X	X
Arkansas.....		\$5,000.....	5							X
California.....	X	\$1,000 to \$25,000.....	18	X	X	X	X	X	X	X
Connecticut.....	X	Up to \$25,000.....	12							X
Florida.....	X	\$1,000.....	14	X	X	X	X	X	X	X
Kentucky.....	X	.....		X	X	X	X	X	X	X
Maryland.....	X	.....		X	X	X	X	X	X	X
Massachusetts.....	X	Up to \$25,000.....	6	X	X	X	X	X	X	X
Minnesota.....	X	\$500 per \$1,000,000 investment.....	(1)	X	X	X	X	X	X	X
Montana.....	X	\$30,000 plus.....		X	X	X	X	X	X	X
Nebraska.....	X	.....		X	X	X	X	X	X	X
Nevada.....	X	.....	16	X	X	X	X	X	X	X
New Hampshire.....	X	.....	18	X	X	X	X	X	X	X
New Jersey.....		.....								
New Mexico.....	X	\$25,000.....		X	X	X	X	X	X	X
New York.....	X	Reasonable fee.....		X	X	X	X	X	X	X
Ohio.....	X	\$5,000 plus.....	24	X	X	X	X	X	X	X
Oregon.....	X	.....		X	X	X	X	X	X	X
South Carolina.....	X	.....		X	X	X	X	X	X	X
Washington.....	X	\$25,000 plus.....	15	X	X	X	X	X	X	X

\* 18 for site, 6 for corridor.

IV. Miscellaneous matters

	Act overrides			Acquisition of suitable sites			Public hearings			Regional co-op authorized	Coastal State	Monitoring procedures required
	Other State agencies			By utility			Site design- ation phase	Approval phase				
	Total	Partial	None	With certificate	Without certificate	By State						
Arizona.....	X			X			X	X	X	X		
Arkansas.....	X											
California.....	X			X			X	X	X	X		XX
Connecticut.....	X			X								
Florida.....	X											
Kentucky.....						X						
Maryland.....												
Massachusetts.....	X			X								X
Minnesota.....	X						X	X	X	X		
Montana.....	X											
Nevada.....	X			X								X
New Hampshire.....	X						X	X	X	X		
New Jersey.....						X						
New Mexico.....	X											
New York.....	X											
Ohio.....	X											
Oregon.....	X											
South Carolina.....	X											X
Washington.....	X											

<sup>8</sup> Except in the coastal zone.

<sup>9</sup> Discretionary.

<sup>10</sup> Override provisions are unclear.

<sup>11</sup> Pollution laws are not overridden.



## APPENDIX 1. ENERGY SITING PROGRAMS IN FOUR STATES

### ENERGY FACILITY SITING PROGRAMS IN FOUR STATES

Most State energy siting programs are not designed to give the State a substantial role in the advance planning of new energy facilities. These programs are essentially regulatory in nature. At least four States, however, have developed more comprehensive programs which authorize State participation in developing long term demand estimates, or advance identification of appropriate sites for new energy facilities. The siting laws of these four States—California, Montana, Maryland, and Minnesota—are analyzed below. The material is excerpted from *Energy Facility Siting*, a Library of Congress report by Wendell Fletcher.

#### CALIFORNIA

Enacted in May 1974, the California Energy Resource Conservation and Development Act<sup>1</sup> is the most comprehensive State energy resources act. A major purpose of the act is to factor energy conservation into the energy development equation, and to provide the institutional means for implementation of energy planning.

The act is primarily concerned with electrical energy. Its policy statement indicates that it is a State responsibility to insure a reliable supply of electricity, maintained at a level consistent with environmental protection and public health and safety needs. The policy statement concludes:

"It is . . . the policy of the State and the intent of the legislature to employ a range of measures to reduce wasteful, uneconomical, and unnecessary uses of energy, thereby reducing the rate of growth of energy consumption, prudently conserve energy resources, and assure statewide environmental, public safety, and land use goals."<sup>2</sup>

#### *Rand Corporation Study on Energy Conservation and Needs*

The law was preceded by a major report on California's energy situation, prepared under contract by the Rand Corporation for the California legislature, the General Assembly.<sup>3</sup> The report, published in September 1972, had an important influence on the scope and nature of the legislation.

The assessment recommended, among other things, that the State itself "formulate and employ measures to slow the growth in the demand for electricity." Recognizing the inevitability of an increased demand for electricity, the report suggested that, even if the State's 8 percent annual growth in electricity demand could be reduced to a level of 3 percent per year, there would still be a substantial need for new sites for electric facilities in the next three decades.

The report, therefore, recommended a greater State role in siting of facilities to be coupled with long range planning to reduce demand growth, and to minimize adverse impacts. State oversight would be accomplished through:

The establishment of a State agency with: The power to prevent arbitrary delay in siting needed facilities by State and local agencies; the capacity to verify the need for new facilities; and the power to coordinate or manage planning.

Overall State guidance in planning the siting of new facilities. The report envisioned an "interactive planning process" involving the State, the utilities, and the public; State selection of sites at least 4 years in advance of construction, preceded by 3 years of site evaluation; early and continuous public participation in the planning process; and an interim strategy to deal with the

<sup>1</sup> Cal. Pub. Res. Code, §§ 25000 *et seq.* (West Supp. 1975).

<sup>2</sup> Cal. Pub. Res. Code § 25007.

<sup>3</sup> The Rand Corporation, *California's Electricity Quandary: 11—Planning for Power Plant Siting*, prepared for the California State Assembly R-1115-RF/CSA. Sept. 1972, p. 98.

transition period in which some applications for facility siting would already be in the process of consideration under the previous system.

The report found a need for energy facility planning to be integrated into a broader planning perspective than that likely to be provided by a siting program alone. In addition to comprehensive energy planning, the report foresaw a need for a greater State role in land use planning:

"There is a need for a statewide land-use policy (and an entity to manage and regulate it). Decisions on powerplant siting are closely related to questions of equitable land use. In the absence of a comprehensive policy, it will probably be necessary to prepare interim State criteria for those aspects of land use that directly affect siting, in order to have a basis for resolving conflicts with local zoning authorities."<sup>4</sup>

#### *Energy Resource Conservation and Development Commission*

The act establishes a five-member, gubernatorially appointed and State senate-confirmed energy resources conservation and development commission (ERCDC). In addition to the public members, the secretary of the State resources agency and the president of the public utility commission serve as nonvoting, ex officio members.

Conflict of interest provisions are specified in the act: no persons receiving a substantial portion of their income 2 years prior to appointment from an electric utility or a manufacturing firm supplying a utility would be eligible to serve on the commission, and appointed members of the commission cannot be employed by a utility or related manufacturing industry until 2 years after they leave the commission. Similarly, commission members and employees are prohibited from participating in proceedings or other actions pertaining to firms with which they were previously affiliated. Violation of the conflict of interest provisions is a felony, with possible penalties of a \$10,000 fine or imprisonment for 2 years, and commission members are required to post a \$25,000 bond conditioned upon faithful execution of duties.

#### *Overview of the Act*

While the regulatory provisions of the act apply primarily to electrical facility siting and certification, the act calls for an energy resources conservation program, and an energy research development program. The Rand Corporation had recommended that regulation of electric facilities should be carried out within a broader energy policy context:

"The State should consider the development of a comprehensive energy policy, the first steps of which would be to assume the functions of powerplant siting, estimating future demand for electricity, establishing policies and implementing measures for slowing the growth in electricity consumption, and managing a program of research and development on electric power problems. A broadened energy policy might include consideration of other forms of energy, and the interaction and integration with State policies on land use, environmental quality, transportation, and urban planning."<sup>4</sup>

#### *Energy Conservation Program*

The energy conservation program<sup>4</sup> established by the act. In addition to calling for studies and reports on the subject, will include regulation of lighting, insulation, climate control systems, and building design and construction in order to increase the efficient use of energy. These regulations are to be implemented through local subdivision regulations.

Under the conservation program, standards are to be developed specifying minimum levels of operating efficiency for appliances that consume a significant amount of electricity.

For electric utilities specifically, the act requires compliance with minimum standards of efficiency for new facilities and new sites; and calls for recommendations to the Governor and legislature on possible changes in rate structures, advertising and other promotional activities which could result in more efficient use of electricity.

Finally, measures which would minimize wasteful, inefficient and unnecessary consumption of energy are to be included in environmental impact statements

<sup>4</sup> *Ibid.*, p. xlii.

<sup>5</sup> *Powerplant Siting in California*, op. cit., xlii.

<sup>6</sup> Cal. Pub. Res. Code §§ 25400-25405 (West Supp. 1975).

required for local projects under the California Environmental Policy Act.<sup>7</sup> This act, similar to the National Environmental Policy Act,<sup>8</sup> requires environmental impact statements to be filed on significant actions affecting the environment.

#### *Research and Development Program*

The act charges the ERCDC with responsibility for developing and coordinating a research and development program<sup>9</sup> pertaining to energy supply, consumption, and conservation, in addition to facility siting R. & D.

The R. & D. program is to include such elements as the following:

Development of methods for energy conservation required by the act's energy conservation program; energy facility design modification to insure greater efficiency; exploration and development of geothermal, solar and other alternative uses of energy; electrical facility design modification for increased protection from seismic activity; improved methods for energy demand forecasting.

In order to anticipate future energy options and their impact, and to "influence Federal research and development priorities," the ERCDC is to carry out technical assessments on a variety of topics pertaining to nuclear energy, coastal and offshore siting of facilities, cooling, power transmission, efficiency improvement, transportation mode shifts, recycling, and utilization of waste heat.

#### *Biennial Report on Energy Policy*

Beginning in 1977, the ERCDC is to submit a biennial report<sup>10</sup> on overall energy needs, developments, policies, and practices to the Governor and the legislature. This comprehensive report, supported by extensive information and analysis by utilities, State and local agencies and public hearings and comment is to provide a basis for State policy and actions relating to approval of new sites and facilities, among many other things. The report must specify existing sites and facilities, their capacity and their potential capacity. Projections of overall siting needs, based on ERCDC demand forecasts, are to be made for a 10-year period. A list is also to be made of possible sites to meet this 10-year need, with characterization of kind and magnitude of the facility at each site.

A long-range, 20-year projection of the likely environmental, economic, and social impacts of continuing present trends must be made, and recommendations on demand reducing policies, energy conservation, and development of potential energy sources are also to be made.

#### *Planning and Forecasting*<sup>11</sup>

The planning and forecasting requirements of the act include:

*5-, 10-, and 20-Year Forecasts.*—These forecasts, to be updated every 2 years, must be prepared by utilities according to a "common methodology" developed by the ERCDC. Alternative methodologies, if utilized, must be justified by the utility. The forecasts must state the basis for projections of greater demand; estimate savings that could be achieved through greater efficiency; specify alternative ways to meet increases in demand; indicate siting needs; and assess potential increases in capacity at existing sites.

*Four-Month Public Comment Period.*—The forecast is to be forwarded to the legislature, relevant State and Federal agencies, and local governments affected. It is to be available for public inspection in each county, and may be purchased at cost by the public. In addition, the State public utilities commission is to submit an independent evaluation of the forecast to the ERCDC. Public comments and agency reviews may be submitted to the ERCDC during this 4-month period.

*ERCDC Evaluation and Preliminary Report.*—After evaluating comments by agencies, local governments, and the public, the commission is to issue a preliminary statewide report on the forecasts made by all utilities. This report, to be published 6 months after filing of the initial forecasts by the utilities, is to assess the accuracy and acceptability of the forecasts. It is to contain an assessment of the environmental, economic, safety, and health impacts of the

<sup>7</sup> Cal. Pub. Res. Code §§ 25400-25405 (West Supp. 1975).

<sup>8</sup> 42 U.S.C. §§ 4321 *et seq.* (1970).

<sup>9</sup> Cal. Pub. Res. Code §§ 25600-25601 (West Supp. 1975).

<sup>10</sup> Cal. Pub. Res. Code § 25309 (West Supp. 1975).

<sup>11</sup> Cal. Pub. Res. Code §§ 25300-25309 (West Supp. 1975).

facilities proposed; alternative methods for achieving electricity demand; assessment of the demand projections; identification of required facilities on a statewide and service area basis; and an evaluation of measures by which demand growth for electricity could be reduced, and the possible effect of such reduced demand growth on critical environmental and other resources of the State. The report is to be made available for agency and public review.

*Public Hearing and Submission to the Governor and the Legislature.*—Three months after distribution of the preliminary report, a public hearing is to be held in Sacramento. Within 1 year of filing of the forecasts, the ERCDC is to submit an overall analysis of the accuracy of the forecasts to the legislature and the Governor as a part of the commission's biennial report discussed above.

#### *Certification of Power Facilities and Sites*

The act gives the ERCDC exclusive authority to certify all sites and energy facilities in the State,<sup>12</sup> with the exception of the permit area covered by the California Coastal Zone Conservation Act.<sup>13</sup> In this instance, an additional permit must be applied for and received from the State coastal commission before construction can commence. In other cases, the certification process is in lieu of any other approval required by a State agency and supersedes any State or local law, ordinance or regulation.

The certification process involves the following major steps:

*Notice of Intention of Filing an Application.*—This preliminary application by the utility is designed primarily to assess the suitability of locating a facility on a proposed site. The utility must specify three alternative sites for location of the facility and at least one of the alternative sites may not be located in the coastal zone. After a public hearing, in the counties affected, the commission must issue a preliminary report on the notice. The report is to indicate the degree of conformity of each alternative site and facility with commission forecasts, and with applicable State and local laws. Four months after distribution of the preliminary report for comment, the commission is to publish a final report indicating conformity of the alternative sites and related facilities. After an additional public hearing on the report, the commission is to rule on the preliminary notice. The notice may not normally be approved unless the commission approves two of the alternative sites. In certain circumstances, the commission may approve a notice with only one acceptable site, or, at the request of the applicant, designate an acceptable site from the State list.

*Certification of Site and Facility.*—The second stage in the project review process is to be initiated by an application at least 18 months prior to the planned construction date. This final application for certification is concerned with exact specifications, design, and other factors. After a period of agency review, public comment, and public hearings, the commission is to issue a written decision on the application, specifying requirements for certification; degree of conformity with State and local laws and measures to maximize conformity; provisions for site restoration; and consistency of the project with the 10-year forecast. Projects which do not conform with State or local regulations may be approved only when there is no prudent or feasible alternative.

#### *Provisions for critical environmental areas*

The act gives special attention to coastal areas, and environmentally critical areas such as parks, scenic and other natural areas, historic preservation districts and estuaries. Impact on such areas must be considered in projections of siting needs, and the regulatory process requires special caution when such areas would be affected. As already mentioned, sites may not be certified in areas under the regulatory authority of the California Coastal Zone Conservation Commission except with the prior approval of the coastal commission.

Parks wilderness and recreation areas, relatively undeveloped estuaries wildlife habitat and historic preservation districts may not be chosen for site certifi-

<sup>12</sup> Cal. Pub. Res. Code §§ 25500-25542 (West Supp. 1975).

<sup>13</sup> Cal. Pub. Res. Code § 27000 (West Supp. 1975). The California Coast Zone Conservation Act was placed on the ballot for the 1972 general election by citizen initiative. It established seven regional coastal zone commissions, overseen by a State level coastal zone conservation commission. Charged with the responsibility of developing an overall coastal zone land use and water use plan for the consideration of the general assembly 1976, the commissions given interim powers to regulate essentially any major development proposed to be placed within 1,000 yards of the mean high tide mark during the planning period. The planning jurisdiction of the coastal commissions, however, is substantially larger.

ation unless the ERCDC finds that the facility would be consistent with the special values of the land area; that there would not be a substantial adverse environmental impact, and that the public agency in charge of the land approves. The act also requires special consideration to be given to land under consideration for designation as a State of Federal wilderness, wildlife or game reserve.

In the event that a facility would be located in a coastal or scenic area, the utility would be required to purchase land for public recreation. Facilities proposed to be located close to a major water body would be required to be set back from the shore in order to permit public use, and to protect scenic and esthetic values.

#### *Land Use Authority*

The act authorizes the ERCDC to require utilities to purchase land adjacent to sites upon which increased population density might in the future be a threat to public health and safety. In the event that a local government already practices land use controls that would preclude such a population density, purchase would not be necessary. Any change in the existing local ordinance, however, would be reviewed by ERCDC to insure that the safe population density would not be exceeded.

#### *Reconsideration and Judicial Review*

The commission may, on its own order or by petition by any party, reconsider its decision. Judicial review is limited by law to procedural, not substantive matters.

#### *Monitoring*

The law requires the commission to establish a monitoring system, using State and local agencies, to review compliance with certificates. Failure to comply can result in revocation of the certificate.

#### *Relationship to Federal Agencies*

The act authorizes the ERCDC to participate as a party in any application before a Federal agency, and is authorized to correspond, confer and cooperate with any Federal agency. Utility forecasts, and the ERCDC reports are also to be sent for possible comment by relevant Federal agencies. In the certification process, the notice of intent, the preliminary report, the report on notice of intent, and the application for certification must be submitted to relevant Federal agencies for review. In addition, the application for certification must specify the Federal agencies which must approve the application; the status of the Federal review; and the schedule for Federal completion of review.

### MONTANA

Montana has substantial reserves of potentially strippable coal. As a consequence of the energy crisis and development of new energy technologies there are plans for construction of major energy production, conversion and transmission facilities in the State. For example, major expansion of strip mining in Montana could lead to construction of coal-gasification plants near the mine sites, with associated gas pipelines to transport the gas to distant markets.

In anticipation of an energy boom, Montana enacted three laws in 1973 which were designed to reduce the impacts of such development, including a strip-mining law, and a resource indemnity trust act, which established a tax on the mine-mouth or wellhead value of nonrenewable resources in order to assist Montana's communities in coping with environmental, economic, and social impacts of energy resource development.

In the same year, the Montana Legislature enacted the Utility Siting Act.<sup>14</sup> Unlike most State siting acts, which only apply to powerplants and transmission lines, the Montana act applies to gasification and liquefaction plants, pipelines related to these facilities, and geothermal energy facilities, in addition to major powerplants and electrical transmission lines.

#### *Administration of the Act*

The act is administered by the department of natural resources and conservation, and the board of natural resources and conservation. The board, a seven-member body appointed by the Governor, is the decisionmaking body for certification of new facilities, and approval of long-range plans. The department

<sup>14</sup> Mont. Rev. Codes Ann. §§ 70-801 to 70-823 (Supp. 1974).

coordinates review of energy facility proposals by other agencies, evaluates projects and plans, and does most of the staff work pertaining to the act.

The act is financed through a tax levied on energy industries. A separate fee to cover the cost of reviewing applications for certification of projects is charged.

#### *Long-Range Utility Planning*

The act requires each utility to submit an annually updated 10-year plan to the department of natural resources. The plan is to specify the anticipated location, size, and type of facilities to be constructed during the time period; coordination efforts with other utilities to meet regional energy needs; and a description of efforts to involve environmental and land-use planning agencies in the plan development, as well as "efforts to identify and minimize environmental problems at the earliest possible stage in the planning process."<sup>14</sup> The plan is also to include projections of demand for the service; the basis for such projections and the extent to which the proposed facilities will meet those projections.

Each utility's long-range plan is to be available for public inspection, and is also to be filed with appropriate State agencies.

#### *Advanced Evaluation of Sites*

The act requires the Department of Natural Resources and Conservation to conduct a preliminary evaluation of facilities which the utility expects to construct within the next 5 years. Information gathered from this evaluation may be used in the certification proceedings. There is no advanced certification of these sites however.

#### *Statutory Criteria for Utility Planning and Certification*

Evaluation of long-term plans, 5-year site reviews, and certification is to be guided by a number of statutory criteria stated in the act. These criteria, too numerous to be cited, pertain to energy needs, land-use impacts, and water resource, air quality, solid waste, radiation, and noise impacts, in addition to monitoring.

#### *Certification Procedure*

The act establishes a certification process for major energy facilities, financed by an application fee, based on the estimated size of the proposed project. Since the evaluation of the application is detailed, the filing fee may be substantial: in one instance, the fee amounted to \$1.2 million.<sup>15</sup> An application for certification must be filed at least 2 years before construction of the facility, with the exception of transmission lines, for which an application only needs to be filed 9 months prior to construction.

The application must include a description of the proposed site and facility; a summary of environmental impact studies; a statement of need for the facility; a description of possible alternative locations for the facility, and a statement of the reasons why the proposed site was chosen.

Proof of service of the application to the local governments involved including localities that would be affected by the alternative sites, and to the State agencies with environmental and land-use planning responsibilities in the area must be provided to the department. The application must also be available for public inspection.

Upon receipt of the application, the department of natural resources and conservation is to conduct a 6-month study on the proposed project. In addition, the departments of health and environmental science, highways, intergovernmental relations, fish and game and public services are also to assess the project in terms of their own expertise.

The studies are to be forwarded to the board of natural resources and conservation, which is to hold a certification proceeding within 2 months of their receipt. Parties to the certification include the applicant, each municipality involved, any resident of such a municipality, nonprofit organizations representing environmental, health, historic preservation, consumer or commercial or industrial groups, and the department of natural resources and conservation.

The board may either approve, approve with conditions, or deny the application. If the board certifies the project, with or without modification, it must state in writing: the basis for the need of the project; its probable environmental impact;

<sup>14</sup> See William Christiansen, *The Energy Crunch*, State Government, Autumn, 1974, p. 207. This application fee was for a 1,400 Mw power facility with 450 miles of related transmission lines.

the measures taken to reduce environmental impacts, given the economic feasibility of existing technology; and the conformity of the project with applicable State and local laws. However, the board is specifically authorized to refuse to apply a local law or regulation it deems unreasonably restrictive.

The Board must find that the proposed facility will not violate State or Federal air and water quality standards and implementation plans. The judgment of State and Federal air and water quality agencies are to be considered conclusive in this matter.

Except for this deferral in judgment to the State air and water quality agency, no other State or local agency may require a consent or other approval for construction, operation or maintenance of a facility defined in the act.

#### *Monitoring of Facilities*

The act grants to the board the continuing responsibility to monitor the operations of certified facilities, and to discover and prevent noncompliance with the provisions of the act or the certificate. The act also authorizes any resident of the State to bring to the attention of the responsible public official any knowledge that the official is not enforcing a requirement of the act. If, subsequent to this sworn testimony, the official does not act in a reasonable amount of time, the resident may bring an action of mandamus against the official. Failure by the official to comply with the court decision is grounds for citation for contempt of court.

#### MARYLAND

Maryland's Powerplant Siting and Research Act<sup>16</sup> was originally passed in 1971, but was amended in 1974. It differs from most State powerplant legislation because it authorizes advanced State acquisition of sites for new facilities, and establishes an environmental trust fund, based on a surcharge on electricity generation, to establish a research program to minimize the impacts of powerplants.

The law is administered primarily by the department of natural resources (DNR), which is authorized to classify sites proposed in a utility's 10-year plan as suitable or unsuitable, administers the environmental trust fund and the powerplant environmental research program, and is responsible for acquiring a State inventory of potential sites. The State public service commission, which is responsible for issuing certificates of public convenience and necessity, and the State departments of health and mental hygiene and economic and community development also have responsibilities under the act.

#### *Ten-Year Plan*

The act requires the utilities of the State to prepare on an annual basis, and the public service commission to compile and evaluate, 10-year plans specifying proposed and potential sites for new facilities, including related transmission lines.

#### *Preliminary Determination of Suitability of Sites*

The department of natural resources must conduct a preliminary environmental assessment of sites proposed in the 10-year plan of a utility within 6 months of transmittal of the plan from the public service commission.

The environmental impact statement is to specify adverse environmental effects, possible alternative sites, irreversible or irretrievable commitment of resources if the site is chosen, and a plan for monitoring the environmental effects of the project if approved, with provisions for remedial action.

#### *Detailed Evaluation of Suitable Sites*

If the department determines on the basis of this evaluation that a proposed site is unsuitable, the public service commission must delete it from the 10-year plan. The utility is given the opportunity to contest the deletion of a site, by offering substantial contrary evidence to the Department of Natural Resources. A 1972 opinion by the State attorney general indicated that a site which would result in a violation of Federal or State environmental standards must be declared unsuitable.

If the preliminary evaluation suggests that the site is suitable, the DNR is to conduct a comprehensive evaluation of the site. A final environmental impact statement on the site is to be published at least 2 years prior to the proposed

<sup>16</sup> Md. Nat. Res. Code §§ 3-301 to 3-307 (1974).

date of construction. If the preponderance of evidence suggests that the preliminary determination of suitability was faulty, the DNR may request that public service commission to delete the site from the 10-year plan.

#### *Certification of Public Convenience and Necessity*

Under the Maryland law, actual certification of a proposed facility is made by the public service commission, not the DNR. The DNR's responsibility rests primarily in the site evaluation. However, the DNR is a party to the hearing on certification.

#### *Environmental Trust Fund and Research Program*

The act establishes an environmental trust fund for the purpose of minimizing environmental impacts of new energy facilities. This fund was initially financed by a surcharge on electricity consumption throughout the State, but was modified in 1974 to a surcharge on electricity generated so that out-of-State customers would indirectly contribute to the fund through the surtax by the utility. Money from the fund is to be used for a continuing research program for evaluation of powerplant siting and related environmental and land-use factors.

The fund can be used for reimbursement of utilities for environmental research necessary to meet State, local, and Federal requirements, and also to finance independent State evaluation of proposed projects. Such evaluations may cost \$500,000 to \$1,000,000.

#### *State Acquisition of Sites*

The act authorizes the State itself to acquire plantsites, either through condemnation or agreement. The cost of acquisition may be paid for by the environment trust fund.

The rationale behind the acquisition program is to have a sufficient supply of suitable sites available for energy facilities if a site proposed by a utility is deemed unsuitable, but the facility itself is considered necessary within the time period planned by the utility. In the event that the utility buys or rents such a site from the State, local zoning or other regulations are not applicable to the site. The State inventory of acquired sites is to consist of four to eight sites at any given time.

#### MINNESOTA

Minnesota's 1973 Powerplant Siting Act<sup>17</sup> requires the State to develop an inventory of tentatively suitable sites for powerplants and corridors for transmission lines. This inventory is to form the basis for designation of future sites for powerplants and transmission lines. If a utility chooses a site that is not on the State inventory, the site must be consistent with the criteria and standards employed in developing the inventory. In most other State powerplant siting acts, the State evaluates sites proposed by a utility, but does not require preidentification of potentially acceptable sites. The Minnesota approach theoretically gives the State much greater control over the location of new facilities since it substantially limits potentially available sites; it may also give the State some control over timing of new facilities in a given area since sites can be selectively added or subtracted from the inventory. Finally, it may maximize the opportunity for integration of energy facility planning with other kinds of planning.

#### *Administration of the Act*

The act is administered by the State environmental quality council, composed of five directors of State agencies with major environmental responsibilities or impacts, and four members of the citizen's advisory committee on environmental quality. This advisory committee, representative of all congressional districts in the State, is a gubernatorially appointed and State senate approved body designed to be a "vehicle for citizens participation in the activities of the council."<sup>18</sup>

The multidepartmental representation of the environmental quality council grew out of a recognition that environmental problems encompassed the responsibilities of several agencies. In addition to its powerplant siting responsibilities, the legislature gave the council the authority to coordinate interde-

<sup>17</sup> Minn. Stat. Ann. §§ 116C.51-116C.69 (Supp. 1974).

<sup>18</sup> *Ibid.*

partmental administration of programs that impact the environment, and to resolve conflicts between agencies in a manner consistent with State environmental policy.

*The Site Inventory and Selection Process*

Pursuant to the Powerplant Siting Act, the environmental quality council (EQC) is to establish a "public planning process" to develop criteria and standards for conducting an inventory of potential facility sites and transmission line corridors on a statewide basis. The inventory itself is a map of potentially acceptable sites and transmission corridors which utilities may use in planning new facilities. The inventory is to be evaluated, revised and published on a continuous basis.

Utilities planning construction of a new facility within a 5-year period must submit a plan specifying the general size and type of facility, and the location of the utility's preferred site for the facility plus one alternative site. The sites may either be included in the inventory, or may be a site of the utility's own choosing—in which case the utility must state its reasons for selecting this site in lieu of a site on the state inventory, and must evaluate the site in terms of the EQC site inventory criteria.

After publication of the State inventory and submission of the utilities 5-year plan, the utility may apply to the EQC for designation of a specific site or corridor for a specific size and type of facility. The time limit for the EQC ruling on the application is 1 year for designations of a site and 6 months for designation of a transmission line, but the time period may be extended an additional 6 months.

The act lists 10 statutory criteria which the EQC is to consider in designation process:

(1) Evaluation of research and investigations relating to the effects on land, water, and air resources of large electric power generating plants and high voltage transmission line corridors and routes and the effects of water and air discharges from such plants on public health and welfare, vegetation, animals, materials and esthetic values, including baseline studies, predictive modeling, and monitoring of the water and air mass at proposed sites and sites of operating large electric power generating plants, evaluation of new or improved methods for minimizing adverse impacts of water and air discharges and other matters pertaining to the effects of powerplants on the water and air environment;

(2) Environmental evaluation of large electric power generating plant-sites and high voltage transmission line corridors and routes proposed for future development and expansion and their relationship to the land, water, air, and human resources of the State;

(3) Evaluation of the effects of new electric power generation and transmission technologies and systems related to powerplants designed to minimize adverse environmental effects;

(4) Evaluation of the potential for beneficial uses of waste energy from proposed large electric power generating plants;

(5) Analysis of the direct and indirect economic impact of proposed large electric power generating plants and high voltage transmission lines;

(6) Evaluation of adverse direct and indirect environmental effects which cannot be avoided should the proposed site and transmission line corridor or route be accepted;

(7) Evaluation of alternatives to the proposed site and transmission line corridors and routes;

(8) Evaluation of irreversible and irretrievable commitments of resources should the proposed site and transmission line corridor or route be approved;

(9) Where appropriate, consideration of problems raised by other State and Federal agencies and local entities;

(10) Where rules and regulations of the council as set forth . . . are substantially similar to existing rules and regulations of a Federal agency to which the utility in the State is subject, the Federal rules and regulations shall be applied by the Council.<sup>19</sup>

<sup>19</sup> Minn. Stat. Ann. §§ 116C.51-116C.60 (Supp. 1974).

If the council approves a site or corridor, it is to issue a certificate of environmental compatibility.

The certificate of environmental compatibility supersedes any local requirements for site approval. No certificate of site compatibility may be issued, however, that would violate State agency regulations. Utilities must apply for permits required by other State agencies pertaining to the construction and operation of a facility, but the EQC decision pertaining to site approval is binding upon the other agencies.

#### *Public Participation*

The Minnesota law requires the Council to adopt "broad spectrum public participation as a principle of operation." While the act requires advisory committees to be established and public hearings to be held, it indicates that public participation shall not be limited to these two devices. As a part of its rule-making authority, the EQC is required to establish "minimum guidelines for public participation in the development, revision and evaluation and enforcement of any regulation, plan, or program established by the Council." All meetings and hearings of the Council are to be open to the public, and the records and correspondence of the Council are to be available for public inspection.

#### *Judicial Review*

The act authorizes a utility, or aggrieved person to appeal an issuance of a certificate to the State district court.

## APPENDIX 2. FEDERAL LAWS AND AGENCIES THAT AFFECT ENERGY FACILITY SITING

A large number of Federal agencies and laws affect the siting of energy facilities. While no Federal agency has veto powers over a State or local decision not to site an energy facility, few if any, energy facilities can be constructed without prior clearance from one or more Federal agencies.

This appendix contains two excerpts from recent reports on Federal involvement in reviewing new energy facilities. The first, a checklist of Federal statutes and regulations related to siting of electrical energy facilities, is excerpted from: "Power Plant Siting Issues and Policies for the Great Lakes Coastal Zone" a 1975 report prepared for the standing Committee on Coastal Zone Management of the Great Lakes Basin Commission, by Chris A. Shafer. The second item, excerpted from "Federal Involvement in the California Coastal Zone" by the California Coastal Zone Conservation Commission, describes Federal regulations by function.

## FEDERAL STATUTES AND REGULATIONS RELATED TO SITING OF ELECTRICAL ENERGY FACILITIES

Agency and permit or review	Act	Cite	Regulations
NUCLEAR POWER PLANTS			
1. NRC—Construction permit.....	Atomic Energy Act 1954, sec. 103	42 U.S.C. 2132/2134	10 CFR.
2. NRC—Operating license.....	do	42 U.S.C. 2134	
3. NRC—Impact statement (EIS).....	National Environmental Policy Act 1969	42 U.S.C. 4332	App. D to CFR pt. 50.
4. NRC—Limited work authorization (LWA).....	do		
5. NRC—Licenses for source, special nuclear, byproduct materials.....	Rivers and Harbors Act, 1889 sec. 10	33 U.S.C. 403	33 CFR 200.
6. Corps—Dredging permit-intake and discharge facilities.....	do	do	Do.
7. Corps—Dredging permit-berth landing facilities.....	do	do	Do.
8. Corps—Approval of construction.....	do	do	Do.
9. Corps—Permission to install structures possibly hazardous to navigation.....	do	33 U.S.C. 403	Do.
10. Corps—Permission to take soil samples below mean high water level.....	FWPCA Amendment 1972, sec. 404	33 U.S.C. 1344	
11. Corps—Permit for disposal of dredged material.....	Marine Protection Act 1972, sec. 103	33 U.S.C. 1413	
12. Corps—Permit for transport of dredged material.....	FWPCA Amendment 1972, sec. 402	33 U.S.C. 1342	40 CFR 124.
13. EPA—Discharge permit.....	do		
14. Coast Guard—Permit for construction of obstructions to navigation.....	do		
15. Coast Guard—Permit for vessels to carry explosives.....	do		
16. FAA—Permission to light meteorological towers and structures.....	Fish and Wildlife Coordination Act 1958	16 U.S.C. 661	33 CFR 126:1A.
17. USFWS—Review and comment on AEC and Corps permits actions.....	do		FAR 77.
18. NOAA—Reviews actions by agencies which might affect marine life.....	do		

## FOSSIL FUEL POWER PLANTS

1. Corps—Permits for activities in or affecting navigable waters (dredging, Rivers and Harbors Act 1899.....  
structure installation, etc.).....
2. Corps—Impact statement (EIS)..... National Environmental Policy Act 1969.....
3. EPA—Water discharge permit, air emission control (where national standards FWPCA amendment 1972, Clean Air Act 1970.....  
apply).....
4. USFWS—Reviews Corps permit granting actions and recommends stipulations Fish and Wildlife Coordination Act 1958.....  
to be included in permits.....

## HYDROELECTRIC POWERPLANTS

1. FPC—Issues preliminary certificates and licenses for construction and operation of non-Federal hydro projects on waters or lands subject to Federal jurisdiction..... Federal Power Act of 1920, amended 1935.....
2. FPC—Impact statement (EIS)..... National Environmental Policy Act 1969.....
3. USFWS—Provides advice and assistance with regard to proposed FPC certificate actions and recommends stipulations.....
4. Forest Service—Issues permits for use of Forest Service Lands.....

## TRANSMISSION LINES

1. NRC—Considers power line routes in granting construction license.....
2. FPC—Considers power line routes in authorizing construction of primary lines from licensed non-Federal projects on lands subject to Federal jurisdiction.....
3. Forest Service—Grants rights-of-way across land it administers.....
4. Bureau of Land Management—Grants rights-of-way across lands it administers.....
5. Corps—Grants permits for stringing of lines across navigable waters.....
6. Fish and Wildlife Service—Provides advice and assistance regarding proposed right-of-way granting actions by BLM or Forest Service; same for Corps permit granting actions.....

Source: "Federal Environmental Law," Environmental Law Institute, 1974 and "Draft Report on Power Plant Siting Legislation," New England River Basins Commission, August 1974, as Presented in Environmental Siting Issues and Policies for Power Plants in the Great Lakes Coastal Zone, by Chris A. Shafer, for the Great Lakes Basin Commission, May 12, 1975.



## FEDERAL AGENCY ACTIVITIES AFFECTING ENERGY FACILITIES SITING\*

### DREDGING AND FILLING

#### ADMINISTRATION AND ADVISORY SERVICES

##### *Bureau of Sport Fisheries and Wildlife:*

Investigates all water use projects and those of public and private agencies under Federal permit to determine the effects of the developments on fish and wildlife resources and recommends measures for the prevention of losses and damages to those resources.

Comments on Corps of Engineers project proposals for dredging and fill.

*National Marine Fisheries Service (NOAA):* Reviews dredge and fill projects under Federal permit when such projects affect the aquatic resources for which it is responsible.

*Office of Solid Waste (EPA):* Establishes dredge spoil criteria, including recommended limits of organic content, trace elements, etc., and the methods of sampling.

*Bureau of Outdoor Recreation—Bureau of Sport Fisheries and Wildlife, et al.:* Review and comment on Corps of Engineers' application for permits to dredge and fill in the coastal zone.

#### FUNCTIONAL RESPONSIBILITIES

##### *Corps of Engineers:*

Is responsible for navigational improvements including the dredging of coastal harbors, channels and anchorages, and the dredging of inland waterways.

May replenish coastal sand sources with artificial beach nourishment (deposition of sand) from navigation dredging project.

Dredges, straightens, and clears waterways as part of flood control projects.

##### *Geological Survey:*

Conducts feasibility studies on engineering projects such as construction on fill areas.

Dredges and cores both the Inner and Outer Continental Shelf and slope for geologic samples.

#### REGULATORY ACTIONS

*Office of Solid Waste (EPA):* Approves location of dumping grounds.

*Corps of Engineers:* Issues permits for dredge disposal and fill in navigable waters. Establishes dumping grounds and restricted areas in navigable waters.

*Coast Guard:* Monitors dredge spoils sites to determine if dumping sites are properly maintained.

##### *Environmental Protection Agency:*

Issues permits for dumping of dredge spoils beyond the 3-mile limit. Establishes dumping grounds in the open sea (after 3-mile limit) require 72-hour notice of dumping so it can be monitored.

#### RESEARCH PROGRAMS AND INFORMATION COLLECTION

*Corps of Engineers:* Studies the environmental impact resulting from dredging in ocean and estuarine ship channels and from disposing of the dredged materials. Included in the study are the determination of existing conditions that may be affected by dredging operations and disposal practices and the identification and condition of pollutant to the marine biological communities. Studies may result in considerations for improving dredge equipment and operations and in new methods and technology for enhancing the marine ecology and resources.

\*Source: California Coastal Zone Conservation Commission; *Federal Involvement in the California Coastal Zone.*

**Environmental Data Service—National Geophysical and Solar-Terrestrial Data Center (NOAA):** Maintains a dredge, core, photo data base for marine sediments.

**National Science Foundation:** Supports research programs through the Research Applied to National Needs (RANN) program on dredge spoil distribution and estuarine effects; research which involves the examination and development of a set a multi and parameter classification indices which can provide meaningful information regarding the impact of dredging operations on estuarine benthic systems and evaluate the influence of dredging activities on water quality.

## OIL AND GAS EXTRACTION AND ALLOCATION

### ADMINISTRATION AND ADVISORY SERVICES

#### **Bureau of Land Management:**

Furnishes the historical and current leasing status of all Federal tracts selected for offshore oil and gas lease sales and their locations within fairways, anchorage areas, and their proximity to pipelines.

Is responsible for all legal title work involving oil and gas on Federal offshore lands and those onshore lands where the Federal Government has retained the mineral estate.

**Bureau of Sport Fisheries and Wildlife:** Investigates all proposals for Corps of Engineers' permits for works or activities in navigable waters to determine their effects on fish and wildlife resources and on the ecosystem of the navigable waters of the United States.

**Coast Guard:** Establishes regulations concerning the marking and lighting of oil extraction structures and artificial islands that are in the navigable waters.

**Corps of Engineers:** Issues permits for the construction and operation of oil extraction platforms and other structures in navigable waters.

#### **Federal Energy Administration—National Office:**

Sets policy for case resolution in regional offices, including compliance, application, verification and other investigations.

Administers and issues allocation orders for crude oil, refinery yield, petrochemical feed stocks, bunker fuel for maritime shipping, aviation fuel for civil air carriers, butane and utility fuel supplies.

Determines each State's percentage of available fuel.

Determines priorities for allocation levels of fuel.

Coordinates with State offices, regional offices and industry in assessing national, regional and State stock levels for all fuels.

Is in charge of dissemination of information on fuel inventories and supply projections.

#### **Federal Energy Administration—Regional Offices:**

The 10 regional offices are responsible for the resolution and administration of all cases involving middle distillates, motor gasoline, residual fuel oil, aviation fuel and propane.

Directs compliance of efforts within the region.

Coordinates actions with Federal headquarters and State offices.

**State Offices (Fuel Allocation):** Advises the regional offices and Federal headquarters of problems with the State concerned with fuel allocations.

#### **Federal Power Commission:**

Issues certificates authorizing natural gas pipelines to construct, extend, acquire or operate transportation and storage facilities for the movement of natural gas in interstate commerce and for the sale of natural gas in interstate commerce for resale.

Authorizes abandonment of natural gas facilities or discontinuance of service subject to Commission jurisdiction.

#### **Geological Survey—Conservation Division:**

Is responsible for the detailed implementation of presale resource evaluation procedures and for providing the necessary information to the Bureau of Land Management review team in carrying out its tasks.

Assesses the potential damage of drilling and/or extraction on the marine environment.

**Office of Oil and Gas (DOI):** Acts as the principal channel of communication between the Federal Government, the petroleum industry, and the oil producing States. Additional responsibility includes providing the Secretary of the Interior with a capability to respond effectively to emergencies which may

\*California Coastal Zone Conservation Commission, *Federal Involvement in the California Coastal Zone*.

affect the Nation's supply of oil and gas and to administer the oil import program.

**Office of Pipeline Safety (DOT):**

Has exclusive safety authority over interstate natural gas pipeline systems (that is, generally those under Federal Power Commission control) and has overall authority for intrastate networks.

Has safety authority governing the transportation by pipeline in interstate and foreign commerce of hazardous materials including petroleum and petroleum products and issues safety regulations for the designated construction, operation, and maintenance of pipelines carrying hazardous materials and petroleum products in liquid form.

**REGULATORY ACTIONS**

**Bureau of Land Management:**

Issues leases for oil and gas on Federal offshore lands and on those onshore lands where the Federal Government has retained the mineral estate.

Issues permits for the location and operation of offshore pipelines.

**Coast Guard:** Enforces the regulations concerned with the marking and lighting of fixed oil extraction structures and artificial islands in the navigable waters.

**Federal Energy Administration—National Office:**

Directs, when necessary, redistribution of fuels to correct regional imbalance, changes in weather and climate, et cetera.

Coordinates with State offices, regional offices and industry in assessing national, regional, and State stock levels for all fuels.

**Federal Energy Administration—Regional Offices:**

The 10 regional offices are responsible for the resolution and administration of all cases involving middle distillates, motor gasoline, residual fuel oil, aviation fuel and propane.

Implements auditing application verification and investigation procedures within the region.

**Federal Energy Administration—State Offices (Fuel Allocation):** Allocates fuel in emergency and hardship cases.

**Federal Power Commission:** Assures nondiscriminatory transportation and purchase of gas in the submerged lands of the Outer Continental Shelf.

**Geological Survey—Conservation Division:**

Monitors drilling and production operations to assure maximum utilization and prevention of waste of the mineral resources and to limit damage to the total environment.

Issues the permit to drill for oil on offshore Federal lands.

Issues permit for flow lines within the offshore tract.

**Office of Pipeline Safety (DOT):** Enforces regulations for natural gas pipeline systems including overall responsibility for such intrastate systems that are under State agency jurisdiction, and enforces regulations directly for liquid pipelines.

**RESEARCH PROGRAMS AND INFORMATION COLLECTION**

**Bureau of the Census:** Compiles statistical data on the crude petroleum and natural gas industry and on oil and gas field services.

**Bureau of Land Management:**

Keeps abreast of the general progress of the presale resource evaluation procedures, gathering pertinent data and developing procedures for use in postsale analysis and in conducting the sale of land.

Conducts/coordinates research on our lands concerning oil and gas extraction.

**Environmental Data Service—National Climatic Center (NOAA):** Maintains an archive of surface marine meteorological and sea surface condition (water temperature and wave [sea and swell]) data; provides general information, copies of the data and summaries or analyses of the archived data on a reimbursable basis to meet specified needs.

**Federal Energy Administration—National Office:**

Determines each State's percentage of available fuel.

Coordinates with State offices, regional offices and industry in assessing national, regional and State stock levels for all fuels.

Is in charge of dissemination of information on fuel inventories and supply projections.

**Federal Energy Administration—Regional Offices:** Implements auditing application verification and investigation procedures within the region.

**Federal Energy Administration—State Offices (Fuel Allocation):** Advises the regional offices and Federal headquarters of problems with the State concerned with fuel allocations.

**Federal Power Commission:** Gathers, maintains, and publishes information on natural gas pipelines subject to Commission jurisdiction.

**Sea Grant Program (NOAA):** Supports research programs on the impacts of oil spills from extraction and transfer to shore.

## POWER PRODUCTION

### ADMINISTRATION AND ADVISORY SERVICES

#### **Energy Research and Development Administration:**

Establishes standards for the construction and operation of nuclear powerplants.

Issues permits for the construction and operation of nuclear powerplants.

Reviews nuclear plantsites.

Reviews design of nuclear plants.

Inspects construction of nuclear powerplants.

Monitors nuclear powerplant construction.

**Bureau of Sport Fisheries and Wildlife:** Comments to AEC and other Federal agencies on the adequacy of the specific fish and wildlife protection plans filed for each hydroelectric project filed with the Federal Power Commission.

#### **Energy Resource Council (ERDA):**

Composed of the Secretary of the Interior, the Administrator of ERDA, the Secretary of State, the Director of the Office of Management and Budget and other officials as the President may designate.

Helps insure communication and coordination among the agencies of the Federal Government which have responsibilities for the development and implementation of energy policy or for the management of energy resources.

**Environmental Protection Agency:** Reviews the air and water effluents of proposed facilities to determine whether they are in compliance with Federal and State quality standards before permit issuance.

**Federal Power Commission:** Prepares water resource appraisals for those river basins for which comprehensive plans of development are neither available nor scheduled for completion by other agencies in time to meet the Commission's needs for licensing, relicensing, or takeover of non-Federal water power projects.

#### **Nuclear Regulatory Commission (ERDA):**

Authorized to undertake a national nuclear energy center site survey to locate possible nuclear energy center sites; to be conducted in cooperation with other Federal, State and local agencies and the views of interested persons, including electrical utilities, citizens' groups and others.

The national nuclear energy center site survey shall include: a regional evaluation of natural resources available for use in connection with nuclear energy center sites; consideration of the use of federally owned property and other property designated for public uses, but excluding national parks, national forests, national wilderness areas, and national historic environments.

#### **Office of Nuclear Reactor Regulation (Nuclear Regulatory Commission, ERDA):**

Reviews the safety and safeguards of all nuclear facilities, materials and activities, including: monitoring, testing, and recommending upgrading of systems designed to prevent substantial health and safety hazards, evaluating methods of transporting special nuclear materials.

## REGULATORY ACTIONS

#### **Energy Research and Development Administration:**

Has authority to deny issuance of construction or operation licenses or withdraws license to operate if utility fails to comply with AEC standards and criteria.

Issues licenses for the construction and operation of nuclear powerplants.

#### **Corps of Engineers:**

Grants permits for the construction of facilities used for the discharge of cooling and waste water into the navigable waters or their tributaries.

Grants permits for the construction of any fixed structures in navigable waters or their tributaries.

*Environmental Protection Agency:* Issues permits for the discharge of cooling and waste water into the navigable waters or their tributaries.

*Federal Power Commission:* Issues permits and licenses for the planning, construction and operation of non-Federal hydroelectric projects on waters or lands subject to Federal jurisdiction.

*Nuclear Regulatory Commission (ERDA):* Has licensing and related regulatory authority (pursuant to chapters 6, 7, 8, and 10 of the Atomic Energy Act of 1954) for demonstration liquid metal fast breeder reactors and other demonstration nuclear reactors operated as part of the power generating facilities of an electrical utility system.

*Office of Nuclear Material Safety and Safeguards, (Nuclear Regulatory Commission, ERDA):* Licenses and regulates facilities and materials associated with the processing, transport and handling of nuclear materials, including the provision and maintenance of safeguards against threats, thefts, and sabotage of such licensed materials and facilities.

*Office of Nuclear Reactor Regulations (Nuclear Regulatory Commission, ERDA):* Licenses and regulates all facilities and materials licensed under the Atomic Energy Act of 1954, associated with the construction and operation of nuclear reactors.

#### FUNCTIONAL RESPONSIBILITIES

*Energy Research and Development Administration:* Studies feasibility of atomic powerplant sites before permit is issued.

*Geological Survey:* Prepares feasibility studies on potential sites for nuclear powerplants.

#### RESEARCH PROGRAMS AND INFORMATION COLLECTION

*Energy Research and Development Administration:*

Conducts research in the development of new technologies for nuclear power generation, its safety and environmental impacts; conducts studies on synthetic fuels; advanced batteries, high capacity power transmission, geothermal resource development, and gas stimulation projects.

Researches future power demand needs, particularly in regard to nuclear power.

Encouraging and conducting research, including demonstration of commercial feasibility and practical applications of the extraction, conversion, storage, transmission and utilization phases related to the development and use of energy from fossil, nuclear, solar, geothermal and other energy sources.

Engages in and supports environmental, biomedical, physical, and safety research related to the development of energy sources and utilization technologies.

Encouraging and conducting research and development in energy conservation, which shall be directed toward the goals of reducing total energy consumption and maximizing the efficiency of energy use.

*Bureau of the Census:* Collects and tabulates data on fuel and energy consumed for heat and power, by industry groups, States, and standard metropolitan statistical areas.

*Environmental Protection Agency:*

Researches effects of water cooling techniques and thermal down wash at its National Environmental Resources Center.

Studies engineering and economics of cooling systems.

Studies secondary impacts of cooling systems, i.e. weather modification, ground fogs, etc.

*Federal Power Commission:*

Prepares projections of future combinations of power generation and transmission systems to meet power requirements.

Collects and publishes data on power production, peak loads, generating capacity, fuels used, costs of generation.

Researches future power demand needs.

*National Science Foundation:* Supports research through the research applied to national needs (RANN) program to evaluate the consequences of alternative cooling methods for the electric power industry.

## APPENDIX 3



Public Law 92-583  
92nd Congress, S. 3507  
October 27, 1972

## An Act

86 STAT. 1300

To establish a national policy and develop a national program for the management, beneficial use, protection, and development of the land and water resources of the Nation's coastal zones, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Act entitled "An Act to provide for a comprehensive, long-range, and coordinated national program in marine science, to establish a National Council on Marine Resources and Engineering Development, and a Commission on Marine Science, Engineering and Resources, and for other purposes", approved June 17, 1966 (80 Stat. 203), as amended (33 U.S.C. 1101-1124), is further amended by adding at the end thereof the following new title:

Marine Resources and Engineering Development Act of 1966, amendment.

80 Stat. 990;  
84 Stat. 865.

## TITLE III—MANAGEMENT OF THE COASTAL ZONE

## SHORT TITLE

Sec. 301. This title may be cited as the "Coastal Zone Management Act of 1972".

## CONGRESSIONAL FINDINGS

Sec. 302. The Congress finds that—

(a) There is a national interest in the effective management, beneficial use, protection, and development of the coastal zone;

(b) The coastal zone is rich in a variety of natural, commercial, recreational, industrial, and esthetic resources of immediate and potential value to the present and future well-being of the Nation;

(c) The increasing and competing demands upon the lands and waters of our coastal zone occasioned by population growth and economic development, including requirements for industry, commerce, residential development, recreation, extraction of mineral resources and fossil fuels, transportation and navigation, waste disposal, and harvesting of fish, shellfish, and other living marine resources, have resulted in the loss of living marine resources, wildlife, nutrient-rich areas, permanent and adverse changes to ecological systems, decreasing open space for public use, and shoreline erosion;

(d) The coastal zone, and the fish, shellfish, other living marine resources, and wildlife therein, are ecologically fragile and consequently extremely vulnerable to destruction by man's alterations;

(e) Important ecological, cultural, historic, and esthetic values in the coastal zone which are essential to the well-being of all citizens are being irretrievably damaged or lost;

(f) Special natural and scenic characteristics are being damaged by ill-planned development that threatens these values;

(g) In light of competing demands and the urgent need to protect and to give high priority to natural systems in the coastal zone, present state and local institutional arrangements for planning and regulating land and water uses in such areas are inadequate; and

(h) The key to more effective protection and use of the land and water resources of the coastal zone is to encourage the states to exercise their full authority over the lands and waters in the coastal zone by assisting the states, in cooperation with Federal and local governments and other vitally affected interests, in developing land and water use programs for the coastal zone, including unified policies, criteria, standards, methods, and processes for dealing with land and water use decisions of more than local significance.

## DECLARATION OF POLICY

SEC. 303. The Congress finds and declares that it is the national policy (a) to preserve, protect, develop, and where possible, to restore or enhance, the resources of the Nation's coastal zone for this and succeeding generations, (b) to encourage and assist the states to exercise effectively their responsibilities in the coastal zone through the development and implementation of management programs to achieve wise use of the land and water resources of the coastal zone giving full consideration to ecological, cultural, historic, and esthetic values as well as to needs for economic development, (c) for all Federal agencies engaged in programs affecting the coastal zone to cooperate and participate with state and local governments and regional agencies in effectuating the purposes of this title, and (d) to encourage the participation of the public, of Federal, state, and local governments and of regional agencies in the development of coastal zone management programs. With respect to implementation of such management programs, it is the national policy to encourage cooperation among the various state and regional agencies including establishment of interstate and regional agreements, cooperative procedures, and joint action particularly regarding environmental problems.

## DEFINITIONS

SEC. 304. For the purposes of this title—

(a) "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 transitional and intertidal areas, salt marshes, wetlands, and beaches. The zone extends, in Great Lakes waters, to the international boundary between the United States and Canada and, in other areas, seaward to the outer limit of the United States territorial sea. The zone extends inland from the shorelines only to the extent necessary to control shorelands, the uses of which have a direct and significant impact on the coastal waters. Excluded from the coastal zone are lands the use of which is by law subject solely to the discretion of or which is held in trust by the Federal Government, its officers or agents.

(b) "Coastal waters" means (1) in the Great Lakes area, the waters within the territorial jurisdiction of the United States consisting of the Great Lakes, their connecting waters, harbors, roadsteads, and estuary-type areas such as bays, shallows, and marshes and (2) in other areas, those waters, adjacent to the shorelines, which contain a measurable quantity or percentage of sea water, including, but not limited to, sounds, bays, lagoons, bayous, ponds, and estuaries.

(c) "Coastal state" means a state of the United States in, or bordering on, the Atlantic, Pacific, or Arctic Ocean, the Gulf of Mexico, Long Island Sound, or one or more of the Great Lakes. For the purposes of this title, the term also includes Puerto Rico, the Virgin Islands, Guam, and American Samoa.

(d) "Estuary" means that part of a river or stream or other body of water having unimpaired connection with the open sea, where the sea water is measurably diluted with fresh water derived from land drainage. The term includes estuary-type areas of the Great Lakes.

(e) "Estuarine sanctuary" means a research area which may include any part or all of an estuary, adjoining transitional areas, and adjacent uplands, constituting to the extent feasible a natural unit, set

October 27, 1972

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Pub. Law 92-583

86 STAT. 1292

aside to provide scientists and students the opportunity to examine over a period of time the ecological relationships within the area.

(f) "Secretary" means the Secretary of Commerce.

(g) "Management program" includes, but is not limited to, a comprehensive statement in words, maps, illustrations, or other media of communication, prepared and adopted by the state in accordance with the provisions of this title, setting forth objectives, policies, and standards to guide public and private uses of lands and waters in the coastal zone.

(h) "Water use" means activities which are conducted in or on the water; but does not mean or include the establishment of any water quality standard or criteria or the regulation of the discharge or runoff of water pollutants except the standards, criteria, or regulations which are incorporated in any program as required by the provisions of section 307 (f).

(i) "Land use" means activities which are conducted in or on the shorelands within the coastal zone, subject to the requirements outlined in section 307 (g).

#### MANAGEMENT PROGRAM DEVELOPMENT GRANTS

Sec. 305. (a) The Secretary is authorized to make annual grants to any coastal state for the purpose of assisting in the development of a management program for the land and water resources of its coastal zone.

(b) Such management program shall include:

(1) an identification of the boundaries of the coastal zone subject to the management program;

(2) a definition of what shall constitute permissible land and water uses within the coastal zone which have a direct and significant impact on the coastal waters;

(3) an inventory and designation of areas of particular concern within the coastal zone;

(4) an identification of the means by which the state proposes to exert control over the land and water uses referred to in paragraph (2) of this subsection, including a listing of relevant constitutional provisions, legislative enactments, regulations, and judicial decisions;

(5) broad guidelines on priority of uses, in particular areas, including specifically those uses of lowest priority;

(6) a description of the organizational structure proposed to implement the management program, including the responsibilities and interrelationships of local, areawide, state, regional, and interstate agencies in the management process.

(c) The grants shall not exceed 66% per centum of the costs of the program in any one year and no state shall be eligible to receive more than three annual grants pursuant to this section. Federal funds received from other sources shall not be used to match such grants. In order to qualify for grants under this section, the state must reasonably demonstrate to the satisfaction of the Secretary that such grants will be used to develop a management program consistent with the requirements set forth in section 306 of this title. After making the initial grant to a coastal state, no subsequent grant shall be made under this section unless the Secretary finds that the state is satisfactorily developing such management program.

Limitation.

(d) Upon completion of the development of the state's management program, the state shall submit such program to the Secretary for

Grants,  
allocation.

review and approval pursuant to the provisions of section 306 of this title, or such other action as he deems necessary. On final approval of such program by the Secretary, the state's eligibility for further grants under this section shall terminate, and the state shall be eligible for grants under section 306 of this title.

(e) Grants under this section shall be allocated to the states based on rules and regulations promulgated by the Secretary: *Provided, however,* That no management program development grant under this section shall be made in excess of 10 per centum nor less than 1 per centum of the total amount appropriated to carry out the purposes of this section.

(f) Grants or portions thereof not obligated by a state during the fiscal year for which they were first authorized to be obligated by the state, or during the fiscal year immediately following, shall revert to the Secretary, and shall be added by him to the funds available for grants under this section.

80 Stat. 1262;  
82 Stat. 208.  
42 USC 3334.

(g) With the approval of the Secretary, the state may allocate to a local government, to an areawide agency designated under section 204 of the Demonstration Cities and Metropolitan Development Act of 1966, to a regional agency, or to an interstate agency, a portion of the grant under this section, for the purpose of carrying out the provisions of this section.

Expiration  
date.

(h) The authority to make grants under this section shall expire on June 30, 1977.

#### ADMINISTRATIVE GRANTS

Limitation.

Sec. 306. (a) The Secretary is authorized to make annual grants to any coastal state for not more than 66 $\frac{2}{3}$  per centum of the costs of administering the state's management program, if he approves such program in accordance with subsection (c) hereof. Federal funds received from other sources shall not be used to pay the state's share of costs.

Allocation.

(b) Such grants shall be allocated to the states with approved programs based on rules and regulations promulgated by the Secretary 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: *Provided, however,* That no annual administrative grant under this section shall be made in excess of 10 per centum nor less than 1 per centum of the total amount appropriated to carry out the purposes of this section.

Program  
requirements.

(c) Prior to granting approval of a management program submitted by a coastal state, the Secretary shall find that:

(1) The state has developed and adopted a management program for its coastal zone in accordance with rules and regulations promulgated by the Secretary, after notice, and with the opportunity of full participation by relevant Federal agencies, state agencies, local governments, regional organizations, port authorities, and other interested parties, public and private, which is adequate to carry out the purposes of this title and is consistent with the policy declared in section 303 of this title.

(2) The state has:

(A) coordinated its program with local, areawide, and interstate plans applicable to areas within the coastal zone existing on January 1 of the year in which the state's management program is submitted to the Secretary, which plans have been developed by a local government, an areawide agency designated pursuant to regulations established under section 204 of the Demonstration

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66 STAT. 1294

80 Stat. 1262;

82 Stat. 208.

42 USC 3334.

Cities and Metropolitan Development Act of 1966, a regional agency, or an interstate agency; and

(B) established an effective mechanism for continuing consultation and coordination between the management agency designated pursuant to paragraph (5) of this subsection and with local governments, interstate agencies, regional agencies, and areawide agencies within the coastal zone to assure the full participation of such local governments and agencies in carrying out the purposes of this title.

(3) The state has held public hearings in the development of the management program.

(4) The management program and any changes thereto have been reviewed and approved by the Governor.

(5) The Governor of the state has designated a single agency to receive and administer the grants for implementing the management program required under paragraph (1) of this subsection.

(6) The state is organized to implement the management program required under paragraph (1) of this subsection.

(7) The state has the authorities necessary to implement the program, including the authority required under subsection (d) of this section.

(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.

(9) The management program makes provision for procedures whereby specific areas may be designated for the purpose of preserving or restoring them for their conservation, recreational, ecological, or esthetic values.

(d) Prior to granting approval of the management program, the Secretary shall find that the state, acting through its chosen agency or agencies, including local governments, areawide agencies designated under section 204 of the Demonstration Cities and Metropolitan Development Act of 1966, regional agencies, or interstate agencies, has authority for the management of the coastal zone in accordance with the management program. Such authority shall include power—

(1) to administer land and water use regulations, control development in order to ensure compliance with the management program, and to resolve conflicts among competing uses; and

(2) to acquire fee simple and less than fee simple interests in lands, waters, and other property through condemnation or other means when necessary to achieve conformance with the management program.

(e) Prior to granting approval, the Secretary shall also find that the program provides:

(1) for any one or a combination of the following general techniques for control of land and water uses within the coastal zone;

(A) State establishment of criteria and standards for local implementation, subject to administrative review and enforcement of compliance;

(B) Direct state land and water use planning and regulation; or

(C) State administrative review for consistency with the management program of all development plans, projects, or land and water use regulations, including exceptions and variances thereto, proposed by any state or local authority or private developer, with power to approve or disapprove after public notice and an opportunity for hearings.

(2) 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.

80 Stat. 1262; 82 Stat. 208. 42 USC 3334. (f) With the approval of the Secretary, a state may allocate to a local government, an areawide agency designated under section 204 of the Demonstration Cities and Metropolitan Development Act of 1966, a regional agency, or an interstate agency, a portion of the grant under this section for the purpose of carrying out the provisions of this section: *Provided*, That such allocation shall not relieve the state of the responsibility for ensuring that any funds so allocated are applied in furtherance of such state's approved management program.

Program modification.

(g) The state shall be authorized to amend the management program. The modification shall be in accordance with the procedures required under subsection (c) of this section. Any amendment or modification of the program must be approved by the Secretary before additional administrative grants are made to the state under the program as amended.

Segmental development.

(h) At the discretion of the state and with the approval of the Secretary, a management program may be developed and adopted in segments so that immediate attention may be devoted to those areas within the coastal zone which most urgently need management programs: *Provided*, That the state adequately provides for the ultimate coordination of the various segments of the management program into a single unified program and that the unified program will be completed as soon as is reasonably practicable.

#### INTERAGENCY COORDINATION AND COOPERATION

SEC. 307. (a) In carrying out his functions and responsibilities under this title, the Secretary shall consult with, cooperate with, and, to the maximum extent practicable, coordinate his activities with other interested Federal agencies.

(b) The Secretary shall not approve the management program submitted by a state pursuant to section 306 unless the views of Federal agencies principally affected by such program have been adequately considered. In case of serious disagreement between any Federal agency and the state in the development of the program the Secretary, in cooperation with the Executive Office of the President, shall seek to mediate the differences.

(c) (1) Each Federal agency conducting or supporting activities directly affecting the coastal zone shall conduct or support those activities in a manner which is, to the maximum extent practicable, consistent with approved state management programs.

(2) Any Federal agency which shall undertake any development project in the coastal zone of a state shall insure that the project is, to the maximum extent practicable, consistent with approved state management programs.

Certification.

(3) After final approval by the Secretary of a state's management program, any applicant for a required Federal license or permit to conduct an activity affecting land or water uses in the coastal zone of that state shall provide in the application to the licensing or permitting agency a certification that the proposed activity complies with the state's approved program and that such activity will be conducted in a manner consistent with the program. At the same time, the applicant shall furnish to the state or its designated agency a copy of the certification, with all necessary information and data. Each coastal state shall establish procedures for public notice in the case of all such

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certifications and, to the extent it deems appropriate, procedures for public hearings in connection therewith. At the earliest practicable time, the state or its designated agency shall notify the Federal agency concerned that the state concurs with or objects to the applicant's certification. If the state or its designated agency fails to furnish the required notification within six months after receipt of its copy of the applicant's certification, the state's concurrence with the certification shall be conclusively presumed. No license or permit shall be granted by the Federal agency until the state or its designated agency has concurred with the applicant's certification or until, by the state's failure to act, the concurrence is conclusively presumed, unless the Secretary, on his own initiative or upon appeal by the applicant, finds, after providing a reasonable opportunity for detailed comments from the Federal agency involved and from the state, that the activity is consistent with the objectives of this title or is otherwise necessary in the interest of national security.

Notification.

(d) State and local governments submitting applications for Federal assistance under other Federal programs affecting the coastal zone shall indicate the views of the appropriate state or local agency as to the relationship of such activities to the approved management program for the coastal zone. Such applications shall be submitted and coordinated in accordance with the provisions of title IV of the Intergovernmental Coordination Act of 1968 (82 Stat. 1098). Federal agencies shall not approve proposed projects that are inconsistent with a coastal state's management program, except upon a finding by the Secretary that such project is consistent with the purposes of this title or necessary in the interest of national security.

42 USC 4231.

(e) Nothing in this title shall be construed—

(1) to diminish either Federal or state jurisdiction, responsibility, or rights in the field of planning, development, or control of water resources, submerged lands, or navigable waters; nor to displace, supersede, limit, or modify any interstate compact or the jurisdiction or responsibility of any legally established joint or common agency of two or more states or of two or more states and the Federal Government; nor to limit the authority of Congress to authorize and fund projects;

(2) as superseding, modifying, or repealing existing laws applicable to the various Federal agencies; nor to affect the jurisdiction, powers, or prerogatives of the International Joint Commission, United States and Canada, the Permanent Engineering Board, and the United States operating entity or entities established pursuant to the Columbia River Basin Treaty, signed at Washington, January 17, 1961, or the International Boundary and Water Commission, United States and Mexico.

(f) Notwithstanding any other provision of this title, nothing in this title shall in any way affect any requirement (1) established by the Federal Water Pollution Control Act, as amended, or the Clean Air Act, as amended, or (2) established by the Federal Government or by any state or local government pursuant to such Acts. Such requirements shall be incorporated in any program developed pursuant to this title and shall be the water pollution control and air pollution control requirements applicable to such program.

Ante, p. 816.  
81 Stat. 485;  
81 Stat. 1676.  
42 USC 1857  
note.

(g) When any state's coastal zone management program, submitted for approval or proposed for modification pursuant to section 306 of this title, includes requirements as to shorelands which also would be subject to any Federally supported national land use program which may be hereafter enacted, the Secretary, prior to approving such pro-

gram, shall obtain the concurrence of the Secretary of the Interior, or such other Federal official as may be designated to administer the national land use program, with respect to that portion of the coastal zone management program affecting such inland areas.

#### PUBLIC HEARINGS

Sec. 308. All public hearings required under this title must be announced at least thirty days prior to the hearing date. At the time of the announcement, all agency materials pertinent to the hearings, including documents, studies, and other data, must be made available to the public for review and study. As similar materials are subsequently developed, they shall be made available to the public as they become available to the agency.

#### REVIEW OF PERFORMANCE

Sec. 309. (a) The Secretary shall conduct a continuing review of the management programs of the coastal states and of the performance of each state.

Financial  
assistance,  
termination.

(b) The Secretary shall have the authority to terminate any financial assistance extended under section 306 and to withdraw any unexpended portion of such assistance if (1) he determines that the state is failing to adhere to and is not justified in deviating from the program approved by the Secretary; and (2) the state has been given notice of the proposed termination and withdrawal and given an opportunity to present evidence of adherence or justification for altering its program.

#### RECORDS

Sec. 310. (a) Each recipient of a grant under this title shall keep such records as the Secretary shall prescribe, including records which fully disclose the amount and disposition of the funds received under the grant, the total cost of the project or undertaking supplied by other sources, and such other records as will facilitate an effective audit.

Audit.

(b) The Secretary and the Comptroller General of the United States, or any of their duly authorized representatives, shall have access for the purpose of audit and examination to any books, documents, papers, and records of the recipient of the grant that are pertinent to the determination that funds granted are used in accordance with this title.

#### ADVISORY COMMITTEE

Coastal Zone  
Management  
Advisory  
Committee,  
establishment,  
membership.

Sec. 311. (a) The Secretary is authorized and directed to establish a Coastal Zone Management Advisory Committee to advise, consult with, and make recommendations to the Secretary on matters of policy concerning the coastal zone. Such committee shall be composed of not more than fifteen persons designated by the Secretary and shall perform such functions and operate in such a manner as the Secretary may direct. The Secretary shall insure that the committee membership as a group possesses a broad range of experience and knowledge relating to problems involving management, use, conservation, protection, and development of coastal zone resources.

Compensation,  
travel ex-  
penses.

(b) Members of the committee who are not regular full-time employees of the United States, while serving on the business of the committee, including traveltime, may receive compensation at rates not exceeding \$100 per diem; and while so serving away from their

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homes or regular places of business may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by section 5703 of title 5, United States Code, for individuals in the Government service employed intermittently.

80 Stat. 499  
83 Stat. 190.

#### ESTUARINE SANCTUARIES

Sec. 312. The Secretary, in accordance with rules and regulations promulgated by him, is authorized to make available to a coastal state grants of up to 50 per centum of the costs of acquisition, development, and operation of estuarine sanctuaries for the purpose of creating natural field laboratories to gather data and make studies of the natural and human processes occurring within the estuaries of the coastal zone. The Federal share of the cost for each such sanctuary shall not exceed \$2,000,000. No Federal funds received pursuant to section 305 or section 306 shall be used for the purpose of this section.

Grants.

Federal share.

#### ANNUAL REPORT

Sec. 313. (a) The Secretary shall prepare and submit to the President for transmittal to the Congress not later than November 1 of each year a report on the administration of this title for the preceding fiscal year. The report shall include but not be restricted to (1) an identification of the state programs approved pursuant to this title during the preceding Federal fiscal year and a description of those programs; (2) a listing of the states participating in the provisions of this title and a description of the status of each state's programs and its accomplishments during the preceding Federal fiscal year; (3) an itemization of the allocation of funds to the various coastal states and a breakdown of the major projects and areas on which these funds were expended; (4) an identification of any state programs which have been reviewed and disapproved or with respect to which grants have been terminated under this title, and a statement of the reasons for such action; (5) a listing of all activities and projects which, pursuant to the provisions of subsection (c) or subsection (d) of section 307, are not consistent with an applicable approved state management program; (6) a summary of the regulations issued by the Secretary or in effect during the preceding Federal fiscal year; (7) a summary of a coordinated national strategy and program for the Nation's coastal zone including identification and discussion of Federal, regional, state, and local responsibilities and functions therein; (8) a summary of outstanding problems arising in the administration of this title in order of priority; and (9) such other information as may be appropriate.

(b) The report required by subsection (a) shall contain such recommendations for additional legislation as the Secretary deems necessary to achieve the objectives of this title and enhance its effective operation.

#### RULES AND REGULATIONS

Sec. 314. The Secretary shall develop and promulgate, pursuant to section 553 of title 5, United States Code, after notice and opportunity for full participation by relevant Federal agencies, state agencies, local governments, regional organizations, port authorities, and other interested parties, both public and private, such rules and regulations as may be necessary to carry out the provisions of this title.

80 Stat. 383.

## AUTHORIZATION OF APPROPRIATIONS

SEC. 315. (a) There are authorized to be appropriated—

(1) the sum of \$9,000,000 for the fiscal year ending June 30, 1973, and for each of the fiscal years 1974 through 1977 for grants under section 305, to remain available until expended;

(2) such sums, not to exceed \$30,000,000, for the fiscal year ending June 30, 1974, and for each of the fiscal years 1975 through 1977, as may be necessary, for grants under section 306 to remain available until expended; and

(3) such sums, not to exceed \$6,000,000 for the fiscal year ending June 30, 1974, as may be necessary, for grants under section 312, to remain available until expended.

(b) There are also authorized to be appropriated such sums, not to exceed \$3,000,000, for fiscal year 1973 and for each of the four succeeding fiscal years, as may be necessary for administrative expenses incident to the administration of this title.

Approved October 27, 1972.

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LEGISLATIVE HISTORY:

HOUSE REPORTS: No. 92-1049 accompanying H.R. 14146 (Comm. on Merchant Marine and Fisheries) and No. 92-1544 (Comm. of Conference).

SENATE REPORT No. 92-753 (Comm. on Commerce).

CONGRESSIONAL RECORD, Vol. 118 (1972):

Apr. 25, considered and passed Senate.

Aug. 2, considered and passed House, amended, in lieu of H.R. 14146.

Oct. 12, House and Senate agreed to conference report.

WEEKLY COMPILATION OF PRESIDENTIAL DOCUMENTS, Vol. 8, No. 44:

Oct. 29, Presidential statement.

## APPENDIX 4

94TH CONGRESS  
1ST SESSION

# S. 586

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IN THE HOUSE OF REPRESENTATIVES

JULY 17, 1975

Referred to the Committee on Merchant Marine and Fisheries

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## AN ACT

To amend the Coastal Zone Management Act of 1972 to authorize and assist the coastal States to study, plan for, manage, and control the impact of energy facility and resource development which affects the coastal zone, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress-assembled,*

3 **TITLE I**

4 **SHORT TITLE**

5 **SEC. 101.** This title may be cited as the "Coastal Zone  
6 Management Act Amendments of 1975".

7 **GENERAL PROVISIONS**

8 **SEC. 102.** The Coastal Zone Management Act of 1972,  
9 as amended (16 U.S.C. 1451 et seq.), is amended as follows:

1 (1) Section 302 (b) of such Act (16 U.S.C. 1451 (b)).  
2 is amended by inserting "ecological," immediately after  
3 "recreational,"

4 (2) Section 304 (a) of such Act (16 U.S.C. 1453  
5 (a)) is amended by inserting therein "islands," immediately  
6 after the words "and includes".

7 (3) Section 304 (e) of such Act (16 U.S.C. 1453 (e))  
8 is amended by deleting "and" after "transitional areas," and  
9 inserting "and islands," after "uplands,".

10 (4) Section 304 of such Act (16 U.S.C. 1453) is  
11 amended by adding at the end thereof the following new  
12 subsections:

13 " (j) 'Energy facilities' means new facilities, or addi-  
14 tions to existing facilities—

15 " (1) which are or will be directly used in the ex-  
16 traction, conversion, storage, transfer, processing, or  
17 transporting of any energy resource; or

18 " (2) which are or will be used primarily for the  
19 manufacture, production, or assembly of equipment, ma-  
20 chinery, products, or devices which are or will be di-  
21 rectly involved in any activity described in paragraph  
22 (1) of this subsection and which will serve, impact, or  
23 otherwise affect a substantial geographical area or sub-  
24 stantial numbers of people.

25 The term includes, but is not limited to, (A) electric generat-

1 ing plants; (B) petroleum refineries and associated facilities;  
 2 (C) gasification plants; liquefied natural gas storage, trans-  
 3 fer, or conversion facilities; and uranium enrichment or nu-  
 4 clear fuel processing facilities; (D) offshore oil and gas ex-  
 5 ploration, development, and production facilities, including  
 6 platforms, assembly plants, storage depots, tank farms, crew  
 7 and supply bases, refining complexes, and any other instal-  
 8 lation or property that is necessary or appropriate for such  
 9 exploration, development or production; (E) facilities for  
 10 offshore loading and marine transfer of petroleum; and (F)  
 11 transmission and pipeline facilities, including terminals which  
 12 are associated with any of the foregoing.

13       “(k) ‘Person’ has the meaning prescribed in section 1 of  
 14 title 1, United States Code, except that the term also includes  
 15 any State, local, or regional government; the Federal Gov-  
 16 ernment; and any department, agency, corporation, instru-  
 17 mentality, or other entity or official of any of the foregoing.

18       “(l) ‘Public facilities and public services’ means any  
 19 services or facilities which are financed, in whole or in part,  
 20 by State or local government. Such services and facilities in-  
 21 clude, but are not limited to, highways, secondary roads,  
 22 parking, mass transit, water supply, waste collection and  
 23 treatment, schools and education, hospitals and health care,  
 24 fire and police protection, recreation and culture, other  
 25 human services, and facilities related thereto, and such gov-

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1 ornmental services as are necessary to support any increase  
2 in population and development.”.

3 (5) Section 305 (b) of such Act (16 U.S.C. 1454 (b) )  
4 is amended by deleting the period at the end thereof and  
5 inserting in lieu thereof a semicolon, and by adding at the  
6 end thereof the following new paragraphs:

7 “(7) a definition of the term ‘beach’ and a general  
8 plan for the protection of, and access to, public beaches  
9 and other coastal areas of environmental, recreational,  
10 historical, esthetic, ecological, and cultural value;

11 “(8) planning for energy facilities likely to be lo-  
12 cated in the coastal zone, planning for and management  
13 of the anticipated impacts from any energy facility, and  
14 a process or mechanism capable of adequately conducting  
15 such planning activities.”.

16 (6) Section 305 (c) of such Act (16 U.S.C. 1454 (c) )  
17 is amended by deleting “66 $\frac{1}{2}$ ” and inserting in lieu thereof  
18 “80”, and by deleting in the first sentence thereof “three”  
19 and inserting in lieu thereof “four”.

20 (7) Section 305 (d) of such Act (16 U.S.C. 1454 (d) )  
21 is amended by—

22 (A) deleting the period at the end of the first sentence  
23 thereof and inserting in lieu thereof the following “:  
24 *Provided*, That notwithstanding any provision of this  
25 section or of section 306 no State management program

## 5

1 submitted pursuant to this subsection shall be considered  
2 incomplete, nor shall final approval thereof be delayed,  
3 on account of such State's failure to comply with any  
4 regulations that are issued by the Secretary to implement  
5 subsection (b) (7) or (b) (8) of this section, until Sep-  
6 - tember 30, 1978."; and

7 (B) deleting the period at the end thereof and insert-  
8 ing in lieu thereof the following "*Provided, That*  
9 the State shall remain eligible for grants under this  
10 section through the fiscal year ending in 1978 for the  
11 purpose of developing a beach and coastal area access  
12 plan an energy facility planning process for its State  
13 management program, pursuant to regulations adopted  
14 by the Secretary to implement subsections (b) (7) and  
15 (b) (8) of this section."

16 (8) Section 305 (h) of such Act (16 U.S.C. 1454  
17 (h) ) is amended by deleting "June 30, 1977" and inserting  
18 in lieu thereof "September 30, 1979".

19 (9) Section 306 (a) of such Act (16 U.S.C. 1455 (a) )  
20 is amended by deleting "66 $\frac{2}{3}$ " and inserting in lieu thereof  
21 "80".

22 (10) Section 306 (e) (8) of such Act (16 U.S.C. 1455  
23 (e) (8) ) is amended by adding at the end thereof the follow-  
24 ing new sentence: "In considering the national interest in-  
25 volved in the planning for and siting of such facilities which

1 are energy facilities located within a State's coastal zone, the  
2 Secretary shall further find, pursuant to regulations adopted  
3 by him, that the State has given consideration to any appli-  
4 cable interstate energy plan or program which is promul-  
5 gated by an interstate entity established pursuant to section  
6 309 of this title."

7 (11) Section 306 of such Act (16 U.S.C. 1455) is  
8 amended by adding at the end thereof the following new  
9 subsection:

10 "(i) As a condition of a State's continued eligibility  
11 for grants pursuant to this section, the management program  
12 of such State shall, after the fiscal year ending in 1978, in-  
13 clude, as an integral part, an energy facility planning proce-  
14 ss, which is developed pursuant to section 305 (b) (8) of  
15 this title, and approved by the Secretary, and a general  
16 plan for the protection of, and access to, public beaches and  
17 other coastal areas, which is prepared pursuant to section  
18 305 (b) (7) of this title, and approved by the Secretary."

19 (12) Section 307 (c) (3) of such Act (16 U.S.C. 1456  
20 (c) (3)) is amended by (A) deleting "license or permit" in  
21 the first sentence thereof and inserting in lieu thereof "license,  
22 lease, or permit"; (B) deleting "licensing or permitting"  
23 in the first sentence thereof and inserting in lieu thereof  
24 "licensing, leasing, or permitting"; and (C) deleting "license

1 or permit" in the last sentence thereof and inserting in lieu  
2 thereof "license, lease, or permit".

3 (13) Sections 308 through 315 of such Act (16 U.S.C.  
4 1457 through 1464) are redesignated as sections 311  
5 through 318 thereof, respectively; and the following three  
6 new sections are inserted as follows:

7 "COASTAL ENERGY FACILITY IMPACT PROGRAM

8 "SEC. 308. (a) The Secretary is authorized to make a  
9 grant to a coastal State, if he determines that such State's  
10 coastal zone has been, or is likely to be, impacted by the  
11 exploration for, or the development or production of,  
12 energy resources or by the location, construction, expansion,  
13 or operation of an energy facility. Such a grant shall be for  
14 the purpose of enabling such coastal State to study and plan  
15 for the economic, environmental, and social consequences  
16 which are likely to result in such coastal zone from explora-  
17 tion for and development or production of such energy re-  
18 sources or from the location, construction, expansion, or  
19 operation of such an energy facility. The amount of such a  
20 grant may equal up to 100 percent of the cost of such study  
21 and plan, to the extent of available funds.

22 " (b) The Secretary is authorized to make a loan and/or  
23 a grant to a coastal State, if he determines, pursuant to sub-  
24 sections (d) and (e) of this section, that such State's coastal

## 8.

1. zone has been or is likely to be adversely impacted by ex-  
2 ploration for or by development or production of energy  
3 resources or by the location, construction, expansion, or  
4 operation of an energy facility, if such adverse impact will  
5 result as a consequence of a license, lease, easement, or  
6 permit issued or granted by the Federal Government which  
7 permits—

8       “(1) the exploration for, or the drilling, mining,  
9 removal, or extraction of, energy resources;

10       “(2) the siting, location, construction, expansion, or  
11 operation of energy facilities by a lessee, licensee, or per-  
12 mittee; or

13       “(3) the siting, location, construction, expansion, or  
14 operation of energy facilities by or for the United States  
15 Government.

16 The proceeds of such a loan or grant shall be used for—

17       “(A) projects which are designed to reduce, amelio-  
18 rate, or compensate for the net adverse impacts; and/or

19       “(B) projects which are designed to provide new or  
20 additional public facilities and public services which are  
21 made necessary, directly or indirectly, by the location,  
22 construction, expansion, or operation of such an energy  
23 facility or energy resource exploration, development or  
24 production.

25 The amount of such a loan or grant may equal up to 100

1 percent of the cost of such a project, to the extent of avail-  
2 able funds.

3 “(c) (1) The Secretary may make a grant to a coastal  
4 State for a purpose specified in subsection (b) of this section,  
5 if he determines that such State will suffer net adverse im-  
6 pacts in its coastal zone, as a result of exploration for, or  
7 development and production of, energy resources; as a result  
8 of the location, construction, expansion, or operation of an  
9 energy facility over the course of the projected or anticipated  
10 useful life of such energy facility; or as a result of explora-  
11 tion, development, or production activity.

12 “(2) The Secretary may make a loan to a coastal State  
13 for a purpose specified in subsection (b) of this section, if  
14 the Secretary determines that such State will experience tem-  
15 porary adverse impacts as a result of exploration for, or de-  
16 velopment or production of, energy resources or as a result  
17 of the location, construction, expansion, or operation of an  
18 energy facility if such facility or such energy resource ex-  
19 ploration, development or production is expected to produce  
20 net benefits for such State over the course of its projected or  
21 anticipated useful life. No such loan, including any renewal or  
22 extension of a loan, shall be made for a period exceeding 40  
23 years. The Secretary shall from time to time establish the  
24 interest rate or rates at which loans shall be made under

1 this subsection, but such rate shall not exceed an annual per-  
2 centage rate of 7 percent. The borrower shall pay such fees  
3 and other charges as the Secretary may require. The Sec-  
4 retary may waive repayment of all or any part of a loan  
5 made under this subsection, including interest, if the State  
6 involved demonstrates, to the satisfaction of the Secretary,  
7 that due to a change in circumstances there are anticipated  
8 or resultant net adverse impacts over the life of an energy  
9 facility or energy resource exploration, development or pro-  
10 duction which would qualify the State for a grant pursuant  
11 to paragraph (1) of this subsection.

12 “(d) The Secretary shall, by regulations promulgated  
13 in accordance with section 553 of title 5, United States Code,  
14 establish requirements for grant and loan eligibility pursuant  
15 to this section. Such requirements shall include criteria, which  
16 may include a formula, for calculating the amount of a grant  
17 or loan based upon the difference, to the State involved be-  
18 tween the benefits and the costs which are attributable to the  
19 exploration for or development and production of energy  
20 resources or to the location, construction, expansion, or opera-  
21 tion of an energy facility. Such criteria shall insure that  
22 grants and loans under this section relating to impacts re-  
23 sulting from the exploration, developmnet and production,  
24 and related energy facilities shall receive first priority among  
25 competing applications. Such regulations shall provide that

1 a State is eligible for a grant or loan upon a finding by the  
2 Secretary that such State—

3 “(1) is receiving a program development grant  
4 under section 305 of this title or is engaged in such  
5 program development in a manner consistent with the  
6 goals and objectives of this Act, as determined by the  
7 Secretary, and is making satisfactory progress, as de-  
8 termined by the Secretary, toward the development of  
9 a coastal zone management program, or that it has an  
10 approved such program pursuant to section 306 of this  
11 title;

12 “(2) has demonstrated to the satisfaction of the  
13 Secretary that it has suffered, or is likely to suffer, net  
14 adverse impacts, according to the criteria or formula  
15 promulgated by the Secretary, and has provided all  
16 information required by the Secretary to calculate the  
17 amount of the grant or loan; and

18 “(3) has demonstrated to the satisfaction of the Sec-  
19 retary and has provided adequate assurances that the  
20 proceeds of such grant or loan will be used in a manner  
21 that will be consistent with the coastal zone management  
22 program being developed by it, or with its approved pro-  
23 gram, pursuant to section 305 or 306 of this title,  
24 respectively.

25 “(c) Within 180 days after approval of this Act, the

1 Secretary shall issue regulations prescribing criteria in ac-  
2 cordance with this Act for determining the eligibility of a  
3 coastal State for grants pursuant to subsections (a), (b), and  
4 (c) (1) of this section, and regulations for determining the  
5 amount of such grant or loan, in accordance with the fol-  
6 lowing provisions:

7       “(1) The regulations shall specify the means and  
8 criteria by which the Secretary shall determine whether  
9 a State’s coastal zone has been, or is likely to be, ad-  
10 versely impacted, as defined in this section, and the  
11 means and criteria by which ‘net adverse impacts’ and  
12 ‘temporary adverse impacts’ will be determined.

13       “(2) Regulations for grants pursuant to subsection  
14 (a) of this section for studying and planning, shall in-  
15 clude appropriate criteria for the activities for which  
16 funds will be provided under such subsection, including  
17 a general range of activities for which a coastal State  
18 may request funds.

19       “(3) Regulations for grants and/or loans for proj-  
20 ects pursuant to subsections (b) and (c) of this section  
21 shall specify criteria for determining—

22               “(A) the amounts which will be provided for  
23 such projects; and

24               “(B) guidelines and procedures for evaluating

1           those projects which each coastal State considers to  
2           be most needed.

3           “(4) Regulations for loans shall provide for such  
4           security as the Secretary deems necessary, if any, to pro-  
5           tect the interests of the United States and for such terms  
6           and conditions as give assurance that such loans will  
7           be repaid within the time fixed.

8           “(5) In all cases, each recipient of financial as-  
9           sistance under this section shall keep such records as the  
10          Secretary shall prescribe, including records which fully  
11          disclose the amount and disposition by such recipient of  
12          the proceeds of such assistance, the total cost of the proj-  
13          ect or undertaking in connection with which such assist-  
14          ance was given or used, and such other records as will  
15          facilitate an effective audit. The Secretary and the Comp-  
16          troller General of the United States, or any of their duly  
17          authorized representatives, shall until the expiration of  
18          3 years after the completion of the project or undertaking  
19          involved (or repayment of a loan, in such cases) have  
20          access for the purpose of audit and examination to any  
21          books, documents, papers, and records of such recipients  
22          which, in the opinion of the Secretary or the Comptroller  
23          General may be related or pertinent to any financial  
24          assistance received pursuant to this section.

## 14

1           “(6) In developing regulations under this section,  
2           the Secretary shall consult with the appropriate Federal  
3           agencies, with representatives of appropriate State and  
4           local governments, commercial and industrial organiza-  
5           tions, public and private groups, and any other appro-  
6           priate organizations with knowledge or concerns regard-  
7           ing net adverse impacts that may be associated with the  
8           energy facilities affecting the coastal zone;

9           “(f) A coastal State may, for the purpose of carrying  
10          out the provisions of this section and with the approval of the  
11          Secretary, allocate all or a portion of any grant or loan  
12          received under this section to (1) a local government; (2)  
13          an areawide agency designated under section 204 of the  
14          Demonstration Cities and Metropolitan Development Act of  
15          1966; (3) a regional agency; or (4) an interstate agency:  
16          *Provided*, That such allocation shall not relieve such State  
17          of the responsibility for insuring that any funds so allocated  
18          shall be applied in furtherance of the purposes of this section.

19          “(g) A coastal State which has experienced net adverse  
20          impacts in its coastal zone as a result of the development or  
21          production of energy resources or as a result of the location,  
22          construction, expansion, or operation of energy facilities  
23          within 3 years prior to the date of enactment of this section  
24          is entitled to receive from the Secretary grants or loans pur-  
25          suant to subsections (a) and (b) of this section to the same

1 extent as if such net adverse impacts were experienced after  
2 the date of enactment, and to the extent necessary to reduce  
3 or ameliorate or compensate for such net adverse impacts,  
4 within the limit of available funds. This subsection shall ex-  
5 pire 5 years from the date of enactment of this section.

6 “(h) All funds allocated to the Secretary for the pur-  
7 poses of this section, except those funds made available pur-  
8 suant to subsection (k), shall be deposited in a fund which  
9 shall be known as the Coastal Energy Facility Impact Fund.  
10 This fund shall be administered and used by the Secretary  
11 as a revolving fund for carrying out such purposes. General  
12 expenses of administering this section may be charged to this  
13 fund. Moneys in this fund may be deposited in interest-bear-  
14 ing accounts or invested in bonds or other obligations which  
15 are guaranteed as to principal and interest by the United  
16 States.

17 “(i) In calculating the amount of a grant or loan, the  
18 Secretary shall give adequate consideration to the recom-  
19 mendations of a Coastal Impacts Review Board. Such Board  
20 shall consist of two members designated by the Secretary,  
21 one member designated by the Secretary of the Interior, one  
22 member designated by the Council on Environmental  
23 Quality, and four members appointed by the President as  
24 designated by the National Governors’ Conference. Such  
25 Board shall recommend the award of grants or loans upon

1 a determination of net adverse impacts and following the  
2 procedures and criteria set forth in this section.

3 “(j) Nothing in this section shall be construed to  
4 modify or abrogate the consistency requirements of section  
5 307 of this Act.

6 “(k) The Secretary shall, in addition to any financial  
7 assistance provided to, or available to, coastal States pursu-  
8 ~~ant to any other subsection of this section,~~ distribute grants  
9 annually in accordance with the provisions of this subsec-  
10 tion. The moneys received under this subsection shall be  
11 expended by each State receiving such grants solely for  
12 the purpose of reducing or ameliorating adverse impacts  
13 resulting from the exploration for, or the development or  
14 production of, energy resources or resulting from the location,  
15 construction, expansion, or operation of a related energy  
16 facility and/or for projects designed to provide new or addi-  
17 tional public facilities and public services which are related  
18 to such exploration, development, production, location, con-  
19 struction, expansion, or operation, except that such grants  
20 shall initially be designated by each receiving State to retire  
21 State and local bonds, if any, which are guaranteed under  
22 section 316 of this Act: *Provided, That,* if the amount of such  
23 grants is insufficient to retire both State and local bonds,  
24 priority shall be given to retiring local bonds. Subject to the  
25 foregoing expenditure requirements, each coastal State shall

1 be entitled to receive a grant under this subsection if such  
2 State is, on the first day of the fiscal year—

3 “(1) adjacent to Outer Continental Shelf lands on  
4 which oil or natural gas is being produced; or

5 “(2) permitting crude oil or natural gas to be  
6 landed in its coastal zone: *Provided*, That such crude  
7 oil or natural gas has been produced on adjacent Outer  
8 Continental Shelf lands of such State or on Outer Con-  
9 tinental Shelf lands which are adjacent to another State  
10 and transported directly to such State. In the event that  
11 a State is landing oil or natural gas produced adjacent  
12 to another State, the landing State shall be eligible for  
13 grants under this subsection at a rate half as great as  
14 that to which it would be eligible in any given year if  
15 the oil were produced adjacent to the landing State. In the  
16 event that a State is adjacent to Outer Continental Shelf  
17 lands where oil or natural gas is produced, but such oil  
18 or natural gas is landed in another State, the adjacent  
19 State shall be eligible for grants under this subsection  
20 at a rate half as great as that to which it would be  
21 eligible in any given year if the oil or natural gas pro-  
22 duced adjacent to that State were also landed in that  
23 State.

24 Such States shall become eligible to receive such automatic  
25 grants in the first year that the amount of such oil or natural

1 gas landed in the State or produced on Outer Continental  
2 Shelf lands adjacent to the State (as determined by the  
3 Secretary) exceeds a volume of 100,000 barrels per day of  
4 oil or an equivalent volume of natural gas. There are author-  
5 ized to be appropriated for this purpose sufficient funds to  
6 provide such States with grants in the amount of 20 cents  
7 per barrel or its equivalent during the first year, 15 cents per  
8 barrel or its equivalent during the second year, 10 cents per  
9 barrel or its equivalent during the third year, and 8 cents per  
10 barrel or its equivalent during the fourth and all succeeding  
11 years during which oil or gas is landed in such a State or  
12 produced on Outer Continental Shelf lands adjacent to such  
13 a State: *Provided*, That (A) such funds shall not exceed  
14 \$100,000,000 for the fiscal year ending June 30, 1976;  
15 \$25,000,000 for the fiscal quarter ending September 30,  
16 1976; \$100,000,000 for the fiscal year ending Septem-  
17 ber 30, 1977; and \$100,000,000 for the fiscal year ending  
18 September 30, 1978; and (B) such funds shall be limited  
19 to payments for the first one and one-half million barrels of  
20 oil (or its gas equivalent) per day per State for the 10 suc-  
21 ceeding fiscal years. The amount of such grant to each such  
22 State in any given year shall be calculated on the basis of the  
23 previous year's volume of oil or natural gas landed in the  
24 State or produced adjacent to the State. For the purposes of

1 this section, one barrel of crude oil equals 6,000 cubic feet  
2 of natural gas.

3 “(l) Any funds provided to any State under this section  
4 not expended in accordance with the purposes authorized  
5 herein shall be returned to the Treasury by such State.

6 “(m) There are hereby authorized to be appropriated  
7 to the Coastal Energy Facility Impact Fund such sums not  
8 to exceed \$200,000,000 for the fiscal year ending June 30,  
9 1976, not to exceed \$50,000,000 for the transitional fiscal  
10 quarter ending September 30, 1976, not to exceed \$200,-  
11 000,000 for the fiscal year ending September 30, 1977,  
12 and not to exceed \$200,000,000 for the fiscal year ending  
13 September 30, 1978, as may be necessary, for grants and/or  
14 loans under this section, to remain available until expended.  
15 No more than 25 percent of the total amount appropriated  
16 to such fund for a particular fiscal year shall be used for the  
17 purposes set forth in subsection (a) of this section.

18 “(n) Section 35 of the Act of February 25, 1920 (41  
19 Stat. 450), as amended (30 U.S.C. 191), is further amended  
20 by deleting ‘52½ per centum thereof shall be paid into,  
21 reserved’ and inserting in lieu thereof: ‘30 per centum  
22 thereof shall be paid into, reserved’, and is further amended  
23 by striking the period at the end of the provision and insert-  
24 ing in lieu thereof the following language: ‘*And provided*

1 *further*, That an additional 22½ per centum of all moneys  
2 received from sales, bonuses, royalties, and rentals of public  
3 lands under the provisions of this chapter shall be paid by  
4 the Secretary of the Treasury as soon as practicable after  
5 December 31 and June 30 of each year to the State within  
6 the boundaries of which the leased lands or deposits are  
7 or were located; said additional 22½ per centum of all  
8 moneys paid to any State on or after January 1, 1976,  
9 shall be used by such State and its subdivisions as the legis-  
10 lature of the State may direct giving priority to those sub-  
11 divisions of the State socially or economically impacted by  
12 development of minerals leased under this Act for (1) plan-  
13 ning, (2) construction and maintenance of public facilities,  
14 and (3) provision of public services.

15 "INTERSTATE COORDINATION GRANTS TO STATES

16 "SEC. 309. (a) The States are encouraged to give high  
17 priority (1) to coordinating State coastal zone planning,  
18 policies, and programs in contiguous interstate areas, and  
19 (2) to studying, planning, and/or implementing unified  
20 coastal zone policies in such areas. The States may conduct  
21 such coordination, study, planning, and implementation  
22 through interstate agreement or compacts. The Secretary is  
23 authorized to make annual grants to the coastal States, not to  
24 exceed 90 percent of the cost of such coordination, study,  
25 planning, or implementation, if the Secretary finds that each

1 coastal State receiving a grant under this section will use  
2 such grants for purposes consistent with the provisions of sec-  
3 tions 305 and 306 of this title.

4       “(b) The consent of the Congress is hereby given to two  
5 or more States to negotiate and enter into agreements or com-  
6 pacts, not in conflict with any law or treaty of the United  
7 States, for (1) developing and administering coordinated  
8 coastal zone planning, policies, and programs; pursuant to  
9 sections 305 and 306 of this title, and (2) the establishment  
10 of such agencies, joint or otherwise, as the States may deem  
11 desirable for making effective such agreements and compacts.  
12 Such agreement or compact shall be binding and obligatory  
13 upon any State or party thereto without further approval by  
14 Congress.

15       “(c) Each executive instrumentality which is established  
16 by an interstate agreement or compact pursuant to this sec-  
17 tion is encouraged to establish a Federal-State consultation  
18 procedure for the identification, examination, and cooperative  
19 resolution of mutual problems with respect to the inarine  
20 and coastal areas which affect, directly or indirectly, the  
21 applicable coastal zone. The Secretary, the Secretary of the  
22 Interior, the Chairman of the Council on Environmental  
23 Quality, and the Administrator of the Environmental Pro-  
24 tection Agency, the Administrator of the Federal Energy  
25 Administration, or their designated representatives, are au-

1 thorized and directed to participate ex officio on behalf of the  
2 Federal Government, whenever any such Federal-State con-  
3 sultation is requested by such an instrumentality.

4 “(d) Prior to establishment of an interstate agree-  
5 ment or compact pursuant to this section, the Secretary  
6 is authorized to make grants to a multistate instrumen-  
7 tality or to a group of States for the purpose of creating  
8 temporary ad hoc planning and coordinating entities to—

9 “(1) coordinate State coastal zone planning, poli-  
10 cies, and programs in contiguous interstate areas;

11 “(2) study, plan, and/or implement unified coastal  
12 zone policies in such interstate areas; and

13 “(3) provide a vehicle for communication with Fed-  
14 eral officials with regard to Federal activities affecting the  
15 coastal zone of such interstate areas.

16 The amount of such grants shall not exceed 90 percent of  
17 the cost of creating and maintaining such an entity. The  
18 Secretary, the Secretary of the Interior, the Chairman of the  
19 Council on Environmental Quality, and the Administrator  
20 of the Environmental Protection Agency, or their designated  
21 representatives, are authorized and directed to participate  
22 ex officio on behalf of the Federal Government, upon the  
23 request of the parties to such ad hoc planning and coordi-  
24 nating entities. This subsection shall become void and cease

1 to have any force or effect 5 years after the date of enact-  
2 ment of this title.

3 "COASTAL RESEARCH AND TECHNICAL ASSISTANCE

4 "SEC. 310. (a) In order to facilitate the realization of  
5 the purposes of this Act, the Secretary is authorized to  
6 encourage and to support private and public organizations  
7 concerned with coastal zone management in conducting re-  
8 search and studies relevant to coastal zone management.

9 "(b) The Secretary is authorized to conduct a program  
10 of research, study, and training to support the development  
11 and implementation of State coastal zone management pro-  
12 grams. Each department, agency, and instrumentality of  
13 the executive branch of the Federal Government shall assist  
14 the Secretary, upon his written request, on a reimbursable  
15 basis or otherwise, in carrying out the purposes of this sec-  
16 tion, including the furnishing of information to the extent  
17 permitted by law, the transfer of personnel with their con-  
18 sent and without prejudice to their position and rating, and  
19 in the actual conduct of any such research, study, and train-  
20 ing so long as such activity does not interfere with the per-  
21 formance of the primary duties of such department, agency,  
22 or instrumentality. The Secretary may enter into contracts  
23 and other arrangements with suitable individuals, business  
24 entities, and other institutions or organizations for such pur-

1 poses. The Secretary shall make the results of research  
2 conducted pursuant to this section available to any interested  
3 person. The Secretary shall include, in the annual report  
4 prepared and submitted pursuant to this Act, a summary and  
5 evaluation of the research, study, and training conducted  
6 under this section.

7 “(c) The Secretary is authorized to assist the coastal  
8 States to develop their own capability for carrying out short-  
9 term research, studies, and training required in support of  
10 coastal zone management. Such assistance may be provided  
11 by the Secretary in the form of annual grants. The amount  
12 of such a grant to a coastal State shall not exceed 80 percent  
13 of the cost of developing such capability.”

14 (14) Section 316, as redesignated, of such Act (16  
15 U.S.C. 1462) is amended by amending subsection (a)  
16 thereof as follows: (A) deleting “and” at the end of  
17 paragraph (8) thereof immediately after the semicolon; (B)  
18 renumbering paragraph (9) thereof as paragraph (11)  
19 thereof; and (C) inserting the following two new para-  
20 graphs:

21 “(9) a general description of the economic, envi-  
22 ronmental, and social impacts of the development or  
23 production of energy resources or the siting of energy  
24 facilities affecting the coastal zone;

25 “(10) a description and evaluation of interstate and

1 regional planning mechanisms developed by the coastal  
2 States; and ”.

3 (15) Section 318, as redesignated, of such Act (16  
4 U.S.C. 1464) is further redesignated and amended to read  
5 as follows:

6 “AUTHORIZATION FOR APPROPRIATIONS

7 “SEC. 320. (a) There are authorized to be appro-  
8 priated—

9 “(1) the sum of \$20,000,000 for the fiscal year  
10 ending June 30, 1976, \$5,000,000 for the transitional  
11 fiscal quarter ending September 30, 1976, \$20,000,000  
12 for the fiscal year ending September 30, 1977, \$20,000,-  
13 000 for the fiscal year ending September 30, 1978, and  
14 \$20,000,000 for the fiscal year ending September 30,  
15 1979, for grants under section 305 of this Act, to remain  
16 available until expended;

17 “(2) such sums, not to exceed \$50,000,000 for the  
18 fiscal year ending June 30, 1976, \$12,500,000 for the  
19 transitional fiscal quarter ending September 30, 1976,  
20 \$50,000,000 for the fiscal year ending September 30,  
21 1977, \$50,000,000 for the fiscal year ending Septem-  
22 ber 30, 1978, \$50,000,000 for the fiscal year ending  
23 September 30, 1979, and \$50,000,000 for the fiscal  
24 year ending September 30, 1980, as may be necessary,

1 for grants under section 306 of this Act, to remain  
2 available until expended;

3 “(3) such sums, not to exceed \$5,000,000 for the  
4 fiscal year ending June 30, 1976, \$1,200,000 for the  
5 transitional fiscal quarter ending September 30, 1976,  
6 \$5,000,000 for the fiscal year ending September 30, 1977,  
7 \$5,000,000 for the fiscal year ending September 30,  
8 1978, \$5,000,000 for the fiscal year ending Septem-  
9 ber 30, 1979, \$5,000,000 for the fiscal year ending  
10 September 30, 1980, and \$5,000,000 for each of the  
11 fiscal years ending September 30, 1981, September 30,  
12 1982, September 30, 1983, September 30, 1984, and  
13 September 30, 1985, as may be necessary, for grants  
14 under section 309 of this Act, to remain available until  
15 expended;

16 “(4) such sums, not to exceed \$5,000,000 for the  
17 fiscal year ending June 30, 1976, \$1,200,000 for the  
18 transitional fiscal quarter ending September 30, 1976,  
19 \$5,000,000 for the fiscal year ending September 30,  
20 1977, \$5,000,000 for the fiscal year ending September  
21 30, 1978, \$5,000,000 for the fiscal year ending Septem-  
22 ber 30, 1979, \$5,000,000 for the fiscal year ending  
23 September 30, 1980, and \$5,000,000 for each of the  
24 fiscal years ending September 30, 1981, September 30,  
25 1982, September 30, 1983, September 30, 1984, and

1 September 30, 1985, as may be necessary, for financial  
2 assistance under section 310(b) of this Act, to remain  
3 available until expended;

4 “(5) such sums, not to exceed \$5,000,000 for the  
5 fiscal year ending June 30, 1976, \$1,200,000 for the  
6 transitional fiscal quarter ending September 30, 1976,  
7 \$5,000,000 for the fiscal year ending September 30,  
8 1977, \$5,000,000 for the fiscal year ending September  
9 30, 1978, \$5,000,000 for the fiscal year ending Septem-  
10 ber 30, 1979, \$5,000,000 for the fiscal year ending  
11 September 30, 1980, and \$5,000,000 for each of the  
12 fiscal years ending September 30, 1981, September 30,  
13 1982, and September 30, 1983, September 30, 1984, and  
14 September 30, 1985, as may be necessary, for financial  
15 assistance under section 310(c) of this Act, to remain  
16 available until expended;

17 “(6) the sum of \$50,000,000 for the fiscal year  
18 ending June 30, 1976, \$12,500,000 for the transitional  
19 fiscal quarter ending September 30, 1976, \$50,000,-  
20 000 for the fiscal year ending September 30, 1977,  
21 \$50,000,000 for the fiscal year ending September 30,  
22 1978, \$50,000,000 for the fiscal year ending Septem-  
23 ber 30, 1979, \$50,000,000 for the fiscal year ending  
24 September 30, 1980, and \$50,000,000 for each of the  
25 fiscal years ending September 30, 1981, September 30,

1 1982, September 30, 1983, September 30, 1984, and  
2 September 30, 1985, for the acquisition of lands to pro-  
3 vide for the protection of, and access to, public beaches  
4 and for the preservation of islands under section 306  
5 (d) (2) of this Act, to remain available until expended;  
6 and

7 “(7) such sums, not to exceed \$10,000,000 for the  
8 fiscal year ending June 30, 1976, \$2,500,000 for the  
9 transitional fiscal quarter ending September 30, 1976,  
10 \$10,000,000 for the fiscal year ending September 30,  
11 1977, \$10,000,000 for the fiscal year ending Septem-  
12 ber 30, 1978, \$10,000,000 for the fiscal year ending  
13 September 30, 1979, \$10,000,000 for the fiscal year  
14 ending September 30, 1980, and \$10,000,000 for each  
15 of the fiscal years ending September 30, 1981, Septem-  
16 ber 30, 1982, September 30, 1983, September 30,  
17 1984, and September 30, 1985, as may be necessary,  
18 for grants under section 315 of this Act, to remain avail-  
19 able until expended.

20 “(b) There are also authorized to be appropriated such  
21 sums, not to exceed \$5,000,000 for the fiscal year ending  
22 June 30, 1976, \$1,200,000 for the transitional fiscal quarter  
23 ending September 30, 1976, \$5,000,000 for the fiscal year  
24 ending September 30, 1977, \$5,000,000 for the fiscal year  
25 ending September 30, 1978, \$5,000,000 for the fiscal year

1 ending September 30, 1979, and \$5,000,000 for the fiscal  
2 year ending September 30, 1980, as may be necessary, for  
3 administrative expenses incident to the administration of this  
4 Act.”.

5 (16) The Coastal Zone Management Act of 1972, as  
6 amended (16 U.S.C. 1451 et seq.) is amended by inserting  
7 therein the following two new sections:

8 “LIMITATIONS

9 “SEC. 318. Nothing in this Act shall be construed to  
10 require the approval of the Secretary as to any State land  
11 or water use decision pertaining to individual cases, includ-  
12 ing, but not limited to, the siting of energy facilities, as a  
13 prerequisite to such States’ eligibility for grants or loans  
14 under this Act.

15 “STATE AND LOCAL GOVERNMENT BOND GUARANTEES

16 “SEC. 319. (a) The Secretary is authorized, subject to  
17 such terms and conditions as the Secretary prescribes, to make  
18 commitments to guarantee and to guarantee against loss of  
19 principal or interest the holders of bonds or other evidences  
20 of indebtedness issued by a State or local government to re-  
21 duce, ameliorate or compensate the adverse impacts in the  
22 coastal zone resulting from or likely to result from the ex-  
23 portation for, or the development of production of energy re-  
24 sources of the Outer Continental Shelf.

25 “(b) The Secretary shall prescribe and collect a guaran-

1 fee fee in connection with guarantees made pursuant to this  
2 section. Such fees shall not exceed such amounts as the Secre-  
3 tary estimates to be necessary to cover the administrative costs  
4 of carrying out the provisions of this section. Sums realized  
5 from such fees shall be deposited in the Treasury as miscel-  
6 laneous receipts.

7       “(c) (1) Payments required to be made as a result of  
8 any guarantee pursuant to this section shall be made by the  
9 Secretary of the Treasury from funds hereby authorized to  
10 be appropriated in such amounts as may be necessary for such  
11 purpose.

12       “(2) If there is a default by a State or local govern-  
13 ment in any payment of principal or interest due under a  
14 bond or other evidence of indebtedness guaranteed by the  
15 Secretary pursuant to this section, any holder of such a bond  
16 or other evidence of indebtedness may demand payment by  
17 the Secretary of the unpaid interest on and the unpaid  
18 principal of such obligation as they become due. The Secre-  
19 tary, upon investigation, shall pay such amounts to such  
20 holders, unless the Secretary finds that there was no default  
21 by the State or local government involved or that such de-  
22 fault has been remedied. If the Secretary makes a payment  
23 under this paragraph, the United States shall have a right of  
24 reimbursement against the State or local government in-  
25 volved for the amount of such payment plus interest at

1 prevailing rates. Such right of reimbursement may be satis-  
2 fied by the Secretary by treating such amount as an offset  
3 against any revenues due or to become due to such State  
4 or local government under section 308 (k) of this Act, and  
5 the Attorney General, upon the request of the Secretary,  
6 shall take such action as is, in the Secretary's discretion,  
7 necessary to protect the interests of the United States, in-  
8 cluding the recovery of previously paid funds that were not  
9 applied as provided in this Act. However, if the funds ac-  
10 crued by or due to the State in automatic grants under  
11 section 308 (k) of this Act are insufficient to reimburse the  
12 Federal Government in full for funds paid under this section  
13 to retire either the principal or interest on the defaulted  
14 bonds, the Secretary's right of reimbursement shall be  
15 limited to the amount of such automatic grants accrued  
16 or due. Funds accrued in automatic grants under section  
17 308 (k) of this Act subsequent to default shall be applied  
18 by the Secretary toward the reimbursement of the obligation  
19 assumed by the Federal Government."

20 SEC. 103. (a) There shall be in the National Oceanic  
21 and Atmospheric Administration an Associate Administrator  
22 for Coastal Zone Management who shall be appointed by the  
23 President, by and with the advice and consent of the Senate.  
24 Such Associate Administrator shall be a qualified individual  
25 who is, by reason of background and experience, especially

1 qualified to direct the implementation and administration of  
2 this Act. Such Associate Administrator shall be compen-  
3 sated at the rate now or hereafter provided for level V of the  
4 Executive Schedule Pay Rates (5 U.S.C. 5316).

5 (b) Section 5316 of title 5, United States Code, is  
6 amended by adding at the end thereof the following new  
7 paragraph:

8 “(135) Associate Administrator for Coastal Zone Man-  
9 agement, National Oceanic and Atmospheric Administra-  
10 tion.”

11 SEC. 104. Nothing in this Act shall be construed to  
12 modify or abrogate the consistency requirements of section  
13 307 of the Coastal Zone Management Act of 1972.

Passed the Senate July 16 (legislative day, July 10),  
1975.

Attest:

FRANCIS R. VALEO,  
*Secretary.*



## APPENDIX 5. COMPARISON OF ALTERNATIVE METHODS FOR DISTRIBUTING COASTAL ENERGY IMPACT FUNDS<sup>1</sup>

### INTRODUCTION

In this paper we compare revenue sharing, a general formula and a specific form of net adverse impact grants as means for distributing Federal funds to plan for, ameliorate and compensate State and local governments for the ill effects of coastal energy development. These three methods are evaluated in light of the following objectives:

- (1) Funds should be distributed to those locales which need them;
- (2) Administrative costs should be low; and
- (3) The distribution of the funds should strengthen or maintain the incentives for State and local governments to make good siting decisions and to force industry to bear its share of energy development costs.

### SUMMARY OF CONCLUSIONS

While a final evaluation of the alternatives naturally depends on the value attached to each of the objectives, it has been demonstrated that the net adverse impact approach is definitely superior with respect to equitable distribution of funds, is at least as favorable with respect to siting incentives, and will require administrative expenses comparable to a reasonably accurate formula technique employing adequate oversight of end use.

The *net adverse impact approach* will require a significant administrative start-up effort, but over the longer run will develop more valuable information at a cost comparable to formula approaches which reflect the balance of impacts suffered in a reasonably accurate way. The net adverse impact approach allocates Federal funds in the proper amounts over time for use in alleviating real impacts suffered by the affected locality. Because of its inherent oversight of end use, the net adverse impact approach eliminates additional direct incentives to site industry in the coastal zone.

*Formula approaches* which are able to justly allocate funds to affected areas in proportion to real impacts suffered will be costly to administer. If little oversight is exercised over the ultimate use of funds, then siting incentives may be distorted. If sufficient oversight is exercised to prevent distortion, then information requirements will be as high as for the net adverse impact approach. Proposed formulae are insufficiently accurate and provide insufficient oversight on the utilization of Federal funds.

*Revenue sharing*, while attractive because of ease of administration, fails to equitably distribute funds and may in fact distort incentives for environmentally, socially and economically desirable siting of energy facilities.

### OUTLINE OF THE NET ADVERSE IMPACTS APPROACH CONSIDERED IN THIS STUDY

In the scheme we consider, the "net adverse impacts" of a coastal energy facility would be determined as follows:

On the benefits side would be included, (1) any taxes paid by the facility to State or local governments in excess of the costs of providing public services or facilities that are directly necessary for the operation or construction of the facility (e.g., sewers, access roads); (2) taxes paid by employees of the facility; and (3) taxes paid by the secondary population increase in the coastal zone because of the energy facility. In calculating the taxes, the maximum of either actual rates or the average of national rates shall be used.

<sup>1</sup> By Jeffrey Roughgarden and Gerald Sauer, Congressional Fellowship Program, Department of Engineering—Economic Systems, Stanford University. The "Background" section of this paper is not included because the matter is more fully discussed elsewhere in the report.

On the costs side, the following would be included, (1) costs of public services and facilities required for the persons employed in the construction or operation of the facility; (2) costs of extra public services and facilities required because of the secondary population increase; and (3) costs to the public of air and water pollution from the facility, up to the Federal standards.

The Secretary of Commerce shall determine the rates to be used in calculating the costs of air and water pollution after reviewing the estimates of these costs which have been made by persons in universities, industry and appropriate Federal agencies.

Not to be included in the determination are: (1) Costs or profits to industry; (2) the costs of providing public services and facilities that are directly required for the construction or operation of the facility; and (3) the benefits to energy consumers of the extra energy made available by the facility.

Coastal States would be eligible for grants equal to 80 percent of the net adverse impacts determined according to the scheme. Loans would be available for financing public services or facilities directly required for the construction or operation of the facility.

Finally, the loss of wetlands due to an energy facility would be considered as a special case because of the difficulty of "replacing" them or determining their value. In the case of loss of wetlands, coastal States would be eligible for grants to cover two-thirds of the cost of privately owned wetlands to be preserved and managed in their natural state. The other one-third of the funds would be supplied by the coastal State.

At the same time coastal States submit applications for net adverse impact funds, they would also submit a plan for the expenditure of any grant money received. The grant money would have to be spent on reducing, ameliorating or compensating for the impacts detailed in the application.

#### THE ISSUE

A major issue which has appeared since passage of the Senate bill is what is the best method for alleviating or compensating coastal States for energy development or for a particular kind of energy development such as OCS activity. Is it revenue sharing, is it through a formula, or is it through the determination of net adverse impacts?

To sharpen the question, what is the best method for distributing funds which:

- (1) allocates the funds to just those local and State governments which suffer, in the balance, from the development;
- (2) has low administrative costs; and
- (3) does not provide any significant incentives for State or local governments to choose an economically, environmentally or socially undesirable site?

In what follows, we first discuss the importance of the objectives that we have just enumerated for the method of distributing funds. Next we evaluate the revenue sharing, formula, and net adverse impact approaches in terms of their ability to meet these objectives and the objectives of the Coastal Zone Management Act.

#### OBJECTIVES TO BE USED IN EVALUATING ALTERNATIVE METHODS

(1) *Pinpointing Funds to Where They Are Deserved.*—The first objective namely to distribute funds to those locales which deserve them, is important for equity, fiscal responsibility and political reasons. These three reasons are interrelated.

The equity reason is fairly obvious. It would appear unfair to transfer money from the General Treasury, and hence the U.S. taxpayer, to a locale which benefits from an energy facility or activity. A future case in which this happens will assuredly receive the attention of the media and would arouse public indignation.

Furthermore, transferring tax money to benefiting locales is fiscally irresponsible to the extent that Federal funds could be devoted to other more worthwhile purposes. Finally, to consider this issue from a third perspective, a method for dispensing funds may not win the approval of the President if the funds are handed out with little relation to net losses actually suffered.

(2) *Administrative Costs.*—The second objective—low administrative costs—has an obvious justification. A related objective is avoiding administrative deci-

sions concerning the transfer of funds which are so arbitrary as to be indefensible in the political arena. This objective, however, obviously has to be traded off with the first objective. Extra administrative costs have to be weighed against greater selectivity in the distribution of funds to those deserving them. Furthermore, in the case of coastal impacts, one has to take into account the fact that part of the administrative machinery will be in place within the States' coastal zone management programs. These programs must include a process for evaluating alternative land use including energy facility siting. Part of such a process obviously involves evaluating socioeconomic and environmental impacts of proposed coastal energy facilities.

(3) *Maintaining Incentives for "Optimal" Siting.*—Before discussing the reasons for adopting the third objective, we have to clarify what is meant by the "best" energy facility site. Associated with any site are the costs to industry of building and operating a facility on that site. Also associated with building and operating a facility on that site are the "spillover" costs to society. These include those public services and facilities which are directly necessary for the energy facility such as sewer lines and access roads. There are also the extra public facilities and services required by the people employed by the facility, either during construction or operation, and by second-order population increase. (The second-order population increase comes about because the expenditures of those newly employed by the energy facility will provide additional jobs in other areas, and so on.) In addition, there are spillover costs due to pollution and aesthetic degradation. Finally, there are spillover benefits in the form of increased taxes from the facility, the people it employs, and the second-order population increase.

Consequently, the "best" site is that which has the lowest sum of industry costs plus net spillover costs (spillover costs minus tax benefits). Industry costs are important because they are eventually passed onto consumers as are taxes. Environmental costs are borne by the public at large.

Ideally, local and State governments should evaluate net spillover costs and compare them with industry costs in determining the best site. Also, local and State governments should strive to get industry to bear as many as possible of the spillover costs directly caused by the facility. The reason is that these costs will be passed on to consumers, who will then bear the full costs of their consumption. In fact, because of piecemeal regulation and lack of planning resources, this process of optimally siting an energy facility is not presently carried out very well either inside or outside the coastal zone.

In evaluating alternative methods for compensating coastal States for energy development impacts, it is important to examine the effects that compensation might have on siting decisions between alternative coastal sites and between a coastal and an inland site. A scheme that could cause State and local governments to ignore differences in spillover costs between different sites to underestimate these costs could lead to energy facilities being sited on high (overall) cost sites when a lower (overall) cost site is available.

Therefore, we would judge a method to be better for distributing impact funds if that method does not award funds for those impacts which vary between sites, but does permit grants in those cases where the impacts are the same regardless of the proposed site. This would significantly avoid biased siting. And it will maintain the incentives for State and local governments to cause siting to take place on the (overall) least cost site to society.

#### COMPARISON OF ALTERNATIVES

The alternatives of revenue sharing, distribution of funds according to a general formula, and grants to compensate for documented net adverse impacts are compared below.

Revenue sharing is taken to mean some sort of plan by which OCS revenues and/or Federal taxes on other energy facilities are earmarked for redistribution to the State and source locality, which in turn spend such funds at their discretion. The formula approach is taken to mean that funds are allocated to the States and localities by the Federal Government according to some sort of general formula involving criteria thought to be related to impacts suffered. The net adverse impact approach refers to the process in which States calculate the net of total costs and benefits over each affected locality (subject to review by the Secretary of Commerce) and receive funds from the Federal Government

for use in preventing or ameliorating actual impacts suffered by the locality as documented during the application process. These three methods may be modified so as to constitute an entire range of alternatives.

#### ADMINISTRATION

First, consider the alternatives with respect to ease of administration. Two concerns within this area are that the costs of operations and the amount of administrative discretion are minimized while not jeopardizing the intent of the impact fund program. Without considering the other objectives, revenue sharing seems to have advantages in this area since information and analytical requirements are minimal. Formula approaches will increase in cost as the accuracy and complexity of the formula increase, requiring the collection and analysis of greater amounts of data. Administrative discretion required by the formula method is small, especially when the formula is legislated. The cost of calculating net adverse impacts depends similarly on the technique adopted. It would probably be unwise and assuredly difficult to attempt the extension of standard cost benefit analysis into the realm of "unquantifiable" impacts such as the loss of wetlands, esthetic degradation, or loss of recreational opportunities. It is important to note that the net adverse impact approach does not require such an impossible task. This is because ecological, esthetic and recreational losses are to be compensated for on the basis of replacement cost by grant or loan, as appropriate. For example, a State might acquire other wetland or recreational areas to protect them from development through public ownership or public holding of development rights. There are, in effect, two sets of accounts—the net of quantifiable impacts and the net of "unquantifiable" impacts. In the latter account, States need only to defend their proposed compensatory project as appropriate to the magnitude of loss suffered. If the program administrator concurs with the State, then grants or loans, as appropriate, are authorized. Clearly, the Secretary of Commerce is called upon to exercise discretion in administering this portion of the net adverse impact fund. As time passes, however, the backlog of experience and precedent would aid the director in executing this responsibility. We may conclude that a considerable startup effort for the purpose of precisely defining regulations and guidelines would be required. After this initial period, the costs of the net adverse impact approach would be comparable to those required by a reasonably sophisticated formula approach. Nevertheless, the sensitivity of this process to the changing needs and capabilities of States in properly managing their coastal zones (as discussed below) more than offset the challenge of this task and indicate that it would be unwise to dismiss this approach simply because the revenue-sharing approach appears most easily administered.

#### EQUITABLE DISTRIBUTION

A second and central area of concern is that the alternative chosen equitably distributes Federal funds. In particular, it is desirable that funds actually are awarded to the affected locality, that the funds are used to prevent or ameliorate real impacts suffered, and that the amount of funds received over time is in line with the impacts suffered overtime. Revenue sharing, as defined herein, fails to achieve these goals. The amount of funds available for distribution over time is independent of the impact suffered over time. In the case of OCS facilities, bonuses are received far in advance of impacts, while in the case of land facilities, major impacts due to construction and startup precede the flow of taxes generated by the facility. It would indeed be fortuitous if all such problems of timing concealed out perfectly. If revenue sharing is carried out in its purest form, then minimal control is exercised over the disbursement of funds and the likelihood of a most equitable distribution is small.

The formula method also fails in this critical area of equitable distribution. While in theory, a general formula could include sufficient variables to calculate the distribution of impacts over the Nation's coastal zone, the difficulty of designing such a formula and the effort and expense required to collect and analyze all of the data for every locality would be inefficiently utilized.

A likely formula would involve only technological and commercial measures relevant to the class of energy facilities, and hence neglect the critical differences in environment and infrastructure which are so closely related to real degree of impacts suffered. Few would suggest that a formula based on such

narrow parameters would adequately describe the impacts due to OCS development in both Alaska and southern California and the Atlantic coast.

In contrast to the alternatives, the calculation of net adverse impacts achieves the goal of equitable distribution on all counts. As the States prepare applications for funds, pursuant to guidelines promulgated by the Secretary of Commerce, the location and magnitude of quantifiable and unquantifiable net impacts are specified explicitly. The information and analysis required of the State in submitting the application is, of course, directly relevant to the ameliorative action for which Federal funds will be utilized. The funds must be utilized for the approved project. Information contained in the State's application will be sufficient as criteria for the program administrator in carrying out his responsibility to insure proper use of funds. It is important to note that with a formula approach, the information needed for such oversight must be independently developed after the funds are received. The priority attached by States to Federal requests for oversight information is necessarily lower when not contingent on receiving the funds. Further, note that this information must be obtained in addition to the vast amount of data required to distribute funds according to a reasonable formula.

In summary, the net adverse impact approach is superior to all other alternatives in terms of insuring an equitable distribution of funds by distribution, amount, and oversight of use.

#### SITING INCENTIVES

A third major area of concern in evaluating the alternatives is that of which method maintains or augments incentives for socially desirable energy facility siting. Given the need for a facility, the socially optimal site is that location which has the least total cost. The total cost is the sum of direct costs borne by industry and the side effect costs borne by government and other affected citizens. The final decision to site a facility in a particular location depends on the complex interplay between industry, planning authorities, and interest groups. It is evident that if an outside agent such as the Federal Government indiscriminately awards funds in amounts that depend on which site within the domain of the planning authority is ultimately chosen, then there is a potential that siting decisions will be biased. In view of the great importance of the coastal zone as expressed by passage of the Coastal Zone Management Act, it is important that the method for implementing a coastal impact fund not bias siting decisions. With no restraints on end use, that is, by denying the connection between funds and sites, revenue sharing can be shown not to bias the siting decision. However, because of the inequity of distribution associated with revenue sharing, resistance to socially optimal siting decisions is likely to endure since there is no assurance that impacts suffered will be ameliorated in all cases. In discussing the formula and net adverse impact approaches, it is useful to distinguish between site-specific and non-site-specific impacts. Site-specific impacts are those positive and negative effects which are not common to all candidate sites within the jurisdiction of the planning authority, but which occur if one particular site is chosen.

Examples of such impacts are aesthetic and recreational impacts. Generally, pollution effects and public services and facilities needed for increased population and commercial activity are not in this category, since they are common to all sites. Non-site-specific impacts can be ameliorated by grant or loan without affecting the siting decision within the coastal zone. That is, incentives will remain for local governments to choose the least cost optimal site among the candidates in the coastal zone. Hence, if grants are made available only for compensation for this class of impacts, no problems arise in siting within the coastal zone. However, there are some who would prefer that all adverse impacts were dealt with, including the site-specific type. It has been shown that information requirements needed to implement this approach are high and that projects to compensate for site-specific impacts must be chosen carefully so as not to change the ranking of candidate sites. As a consequence of these considerations, it is recommended that funds be utilized only for amelioration of impacts which are common to all candidate sites within a State coastal zone.

In light of this discussion, several comments can be made for comparing the formula and net adverse impact approaches. First, if the formula contains any

parameters which vary with the candidate sites, then siting bias within the coastal zone is introduced. Second, the recommended method for administering net adverse impacts results in no bias among sites in the coastal zone.

In considering siting questions, it is proper to address the criticism that all methods which limit use of Federal funds to the coastal zone provide an incentive for the siting of facilities within the coastal zone. This argument can only apply to those facilities which are susceptible to such bias and hence excludes OCS operations, deepwater ports, and energy-related harbor activities which are geographically bound to the coastal zone. Other facilities such as powerplants and refineries are often optimally sited within the coastal zone because of demand and technological considerations. Because the net adverse impact approach encourages greater planning, greater public involvement via the coastal zone management program, and therefore augments incentives for optimal site selection within the coastal zone, problems that traditionally accompany such facilities will be reduced. For those facilities which in fact are optimally located inland, such as a powerplant to serve inland demands, the argument stands correct in theory. In reality, however, its predictions depend on gaming behavior on the part of State authorities, local residents and industry. Industry must be somehow induced via tax incentives or promises of additional service or the like to reverse its decision to locate inland in favor of locating in the coastal zone. We can expect, however, that State and local authorities will continue their present practice of considering many factors in attracting industry, and that they will recognize the positive effect of developing energy facilities under the auspices of a sound coastal zone management plan. This surely diminishes the import of the inland-coastal bias issue.

Nevertheless, there are still many who will attach great weight to this issue as an argument against any form of impact fund. As such, it may be worthwhile to analyze this effect in more detail under each of the three plans. One of the effects of increased awareness of the sensitivity and importance of the coastal zone has been a response by local government in the direction of tighter and more comprehensive regulation of industry. Impact fund methodologies which allow the use of funds for any impacts suffered open the door to ameliorative projects which would otherwise have been the responsibility of industry, as for example, buffer zones around facilities. If, in addition, the amount of funds received bears little relation to the time stream of impacts suffered, and excess funds must be returned to the treasury, then little control will be independently exercised during periods of relative plenty. On the other hand, the net adverse impact approach recommended herein does not allow Federal funds for use in ameliorating site-specific impacts and hence cannot be criticized as providing direct inducements to industry to site in the coastal zone.

In summary, the revenue sharing and formula approaches, in failing to provide sufficient guidelines for allowable uses of Federal funds, may bias siting decisions between inland and coastal areas in favor of locating facilities in the coastal zone.

Furthermore, any dependency between funds received and sites chosen, as is likely to occur in a reasonable formula approach, will jeopardize objective siting within the coastal zone. In contrast, the net adverse impact approach as described herein minimizes or eliminates any incentives for industry to locate unnecessarily in the coastal zone, and promotes the selection of socially optimal sites within the coastal zone.