COASTAL ENERGY IMPACT PROGRAM

AN EVALUATION

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U.S. Department of Commerce
Office of Coastal Zone Management
National Oceanic & Atmospheric Administration
and
Office of Budget and Program Evaluation
Assistant Secretary for Administration

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I. EXECUTIVE SUMMARY

A. Introduction

In the early 1970's, concern was expressed that accelerated energy exploration and development was having and would continue to have profoundly negative effects on local economies, social patterns and the environment, particularly in the coastal areas. This concern was translated in 1976 into the Coastal Energy Impact Program (CEIP). Since its establishment, the Coastal Energy Impact Program has awarded $47 million in grants and $107 million in loans to counteract adverse effects of energy development.

The Office of Management and Budget (OMB) requested the Department of Commerce (DOC) to complete a comprehensive review of the future need for and possible better targeting of CEIP funds. In addition, after four years of experience, there is concern in both the Executive and Legislative Branches that the program be evaluated, particularly in light of the fact that Coastal Energy Impact Fund (CEIF) appropriations which support important parts of the program will have been fully utilized by FY 1982.

CEIP has received criticism from other Executive Branch and Congressional sources, as well as from OMB. The critics have questioned whether the negative effects that the program was intended to address have materialized and whether the program has met the purposes of its authorizing legislation. If the program has failed in these areas, the critics claim that the failures would justify elimination or a significant decrease in program funding.

The doubts raised by the criticism as well as the salience of the FY

1982 CEIF budget decisions have generated the need for an assessment of CEIP and for an examination of the changes, if any, that are needed to make the program more responsive to current national goals. This evaluation was conducted from April to August 1980 by Roberta A. Miller, of the Office of Budget and Program Evaluation in the Office of the Assistant Secretary for Administration; and by Joseph Uravitch and Martin Chorich of the Office of Coastal Zone Management (OCZM) of the National Oceanic and Atmospheric Administration. Their assessment involved a literature review of studies of energy development and the potential problems that the program was intended to address, as well as interviews with Federal, State and local officials involved in aspects of the CEIP program. Additionally, the team members participated in field trips to the Gulf of Mexico and Alaska as part of their research.

The team's evaluation indicated that, in certain areas, the program has been successful; that some of the problems that the program was intended to address do, in fact, exist and are likely to become aggravated; and that some changes in the program are needed to improve its effectiveness. In general, the benefits have been considerable and a continuation of the program is in the public interest.

This report of the team's evaluation is presented in three sections; Summary, Program Background, and Program Assessment. The conclusions and policy recommendations which derive from these conclusions are presented in the Executive Summary. These conclusions and recommendations represent a consensus of the team. The Background section presents general material about the program's legislative and administrative history. The Assessment section presents substantial evidence upon which the conclusions and recommendations presented in the Executive Summary are based.

B. Conclusions

The evaluation team assessed CEIP against the purposes set out in its legislative history. The team also attempted to determine the extent to which energy development has impacted or is likely to impact coastal areas. From this assessment of the program, the team has reached a number of conclusions which relate to the way CEIP has fulfilled its objectives. Additionally, in examining the program the team has made determinations about several administrative practices which appear to affect program performance. The team's findings are listed below:

- CEIP has fulfilled its legislative objective of increasing the ability of states and localities to plan for energy development. In funding planning projects which focus on general and specific energy development, CEIP has fostered "institution building" to deal with such issues. Most of the state and local officials interviewed for the study indicated that this activity would not have occurred in absence of CEIP funding.

- Energy development, particularly oil and gas extraction, causes or has the potential to cause serious environmental impacts. CEIP, by providing funds for mitigation of those impacts, has been a major factor in lessening the negative effects of energy development, thus fulfilling another important legislative objective. State and local personnel interviewed noted that, as in the case of planning, CEIP funds have promoted activities which other governmental levels generally could not finance.

- Disagreement continues on the existence of the "boomtown" phenomenon that was a major legislative concern in enacting CEIP. While some analysts do not subscribe to the view that the "boomtown" phenomenon exists, others note that continued rapid growth outstripping public facilities is now occurring in some Gulf of Mexico areas. Some future energy development scenarios indicate that the phenomenon may occur in the future, possibly in Alaska.

- Studies of energy development indicate that the most appropriate means of financing shortfalls in community infrastructure caused by energy development is through loans which are paid back when the development activity provides a revenue surplus. Research conducted by the team indicates, however, that in a number of cases the private market does not satisfy all such municipal financing needs. The use of formula grants for provision of public facilities and services is not consistent with the study findings.

- Consistent with legislative objectives, CEIP has provided a valuable incentive for State participation in the national Coastal Zone Management (CZM) program, particularly by the Gulf of Mexico States. Additionally, CEIP has served to augment the CZM Program in assisting States in dealing with coastal energy issues.

- In attempting to meet its legislative objective of providing "equity" to States hosting development on Federal Outer Continental Shelf (OCS) lands through formula grants, CEIP has met with limited success. CEIP has in fact provided federal funds to states and communities which are

prohibited from taxing OCS-sited production facilities. It does not, however, appear to have affected basic attitudes toward energy development. State planning capabilities have been enhanced by CEIP-funded projects. State approaches to energy development have changed because they have been able to participate in the process, but it is difficult to determine if CEIP is responsible. In any event, CEIP generally has not muted any opposition to or encouraged supporters of energy development.

- The legislative formula for allotting the Section 308(b) grants (formula grants) provides much of the aid to frontier areas after most of the need for planning and impact mitigation studies and projects has passed. Although these activities are the key to CEIP's success in dealing with energy development, the Section 308(b) formula neutralizes their effectiveness.

- Section 308(d) (4) environmental grants are awarded for coastal energy activity other than OCS oil and gas development. The formula currently in use for allocation of these grants is based on the amount of new employment to be generated by the facility in question. Since labor-intensive facilities are not necessarily those which create the most negative environmental effects (e.g. LNG facilities), the formula is inequitable.

- CEIP legislative history makes it clear that CEIP loans are intended for those communities denied reasonably priced commercial credit. This implies that such loans must themselves also be reasonably

priced. The concept of "reasonableness" relates to the commercial market, and CEIP loans should for the most part bear market-determined interest rates. The current, special circumstances approach to determining CEIP rates was developed as a way around unrealistically high Treasury rates. It specifically includes non-market factors and is, for this reason, generally inappropriate.

- Any attempt to disaggregate impacts between Federal OCS oil and gas development and State waters and coastal zone oil and gas development is fraught with difficulties. These facilities use the same support bases, pipelines and other facilities. Currently OCZM cannot distinguish between impacts from either type of development, since they generally occur together. Additionally, it is nearly impossible to distinguish between new impacts and old impacts in regions where there is continuing production.

C. Recommendations

Based on the above-listed conclusions the evaluation team makes the following suggestions and recommendations, which are intended as guidance in planning for CEIP's future.

- Formula grants should continue to be used for planning and environmental purposes, and such use should be actively encouraged.

- Planning grants, currently allotted for facilities other than OCS oil and gas, have been extremely successful and should be continued.

- Environmental grants for coastal energy activity other than OCS oil and gas have been successful, and should be continued.

- Future energy development scenarios indicate that the "boomtown" phenomenon may indeed occur in the future, particularly in Alaska. Thus, provision for such occurrence should remain in CEIP.

- Loans are the most appropriate means of financing public facility shortfalls (which may be severe in the short-term). The CEIP loan program should be recapitalized.

- Using formula grants for public facility and service needs is inappropriate. The use of formula grants for public facilities and services should be deleted by legislation.

- Since a major objective of the CEIP legislation is planning for and mitigation of negative effects from new energy development, the Section 308(b) formula should be changed legislatively to allot more aid to areas facing new energy development. This can be accomplished by eliminating or discounting continuing development and production as a factor in the distribution of aid.

- The allotment formula for Section 308(d) (4) environmental grants should be changed. Given the current state of energy impact quantification methods, the allotment formula should be based on factors other than new employment to be generated by the energy facility in question.

- It is difficult to disaggregate impacts from OCS and state oil and gas production. Formula grant aid should be awarded to states based on OCS activity (for equity purposes) but funded projects be permitted to address impacts not involving OCS activity.

- The special circumstances approach to determining CEIP interest rates should be modified. Preferably it should be abandoned and a series of flat, market-oriented rates established instead. Such rates should be high enough to discourage loans which could be financed commercially, but low enough to permit the program to service states and communities which are denied reasonably priced commercial credit.

The team also recommends certain improvements in the administration of CEIP. These involve primarily program planning and coordination.

The team makes no recommendations for enhancing the legislative objectives of encouraging CZM, providing "equity", and muting energy development opposition. In the first instance, the current CEIP legislation is sufficient. For the second and third objectives, it is unlikely that any amount of money that would be provided under CEIP would significantly address these objectives.

II. PROGRAM BACKGROUND

A. Program Intent

The Coastal Energy Impact Program (CEIP) was established in 1976 by amendments to the Coastal Zone Management Act (CZMA) of 1972 (P.L. 94-370). In 1978, Congress amended CEIP as part of its passage of the Outer Continental Shelf Lands Act Amendments (OCSLA) (P.L. 95-327).

Congress addressed several objectives in establishing CEIP:

- To improve State and local capacity to deal with expanded coastal energy activity.
- To provide front-end financing to communities faced with "boomtown" and other socio-economic effects from rapid, energy-spawned industrialization.
- To mitigate environmental and recreational losses stemming from energy development.
- To encourage State participation in the Coastal Zone Management Program.
- To provide limited compensation or "equity" in lieu of taxes to States adjacent to Outer Continental Shelf (OCS) oil and gas development.
- To reduce opposition to OCS leasing and other energy development.

Congress believed that accelerated efforts to increase domestic energy production would have serious effects on local economies, environments, and social patterns. While the CZMA was considered to be sound legislation for protecting coastal resources through planning and management of development

in coastal areas, Congress felt that its provisions were inadequate to deal with energy issues and should be strengthened.

The legislators were particularly concerned with proposals to rapidly increase the Outer Continental Shelf (OCS) leasing program for oil and gas exploration as in 1975 the Supreme Court had established that States have no taxing power beyond the territorial sea. Thus, OCS oil and gas development does not provide a full share of economic benefits to host communities as other energy facilities do, although OCS development may cause many negative impacts on the local area. An argument was thus made for compensating coastal States for "hosting" development on Federal OCS lands.

In addition, the potential of suffering negative effects, particularly environmental effects, was considered to be largely responsible for local opposition to energy development. Congress, fearing that increased opposition would seriously delay progress toward energy self-sufficiency, thought that provision of aid to impacted communities would alleviate some of the pressure. At the same time, eligibility for assistance was tied to progress in basic coastal zone management programs to assure the most appropriate use of the funds by States.

The "equity" objective and the desire to reduce opposition to energy development led to a desire to give States maximum control over the aid awarded to them. The concept of such control fit well with a final objective - to add an additional incentive to participate in the Federal coastal zone management program, by tying CEIP assistance to participation in that program.

B. Program Structure

To accomplish these varied objectives, Section 308 of the CZMA extends several types of grant and credit assistance to coastal States and communities impacted by energy development. The aid categories are discussed below.

Formula Grants (section 308(b) are allocated among States according to a formula based on the amount of OCS acreage leased and oil and gas produced and landed from OCS areas adjacent to the States. States which are in the same region as others with offshore leasing receive a minimum 2% share if they are determined to be affected by OCS activity. Formula grants may finance planning studies, new public facilities and services required by OCS development, and projects to mitigate unavoidable environmental and recreational losses caused by coastal energy activity (all coal, oil, and gas activity).

CEIP formula grants were designed to respond to State and local demands for a share of Federal OCS leasing royalties. However, formula grants are funded from the general treasury, and the total amount appropriated for such grants is not derived from the level of OCS leasing royalties.

In order to offset somewhat this limited financial response to the royalty sharing argument, the legislation permits States considerable discretion in spending their formula grant allotments. In fact, the law could be interpreted as limiting the authority of the Secretary of Commerce to deny funding for particular public works projects if the need for them can be traced to OCS energy development. (Section 308(b)(5)(B)(ii)).

Planning Grants (Sec. 308(c) (1) finance State and local planning projects to prepare for proposed coastal energy facilities. Congressional

intent for planning grants was to augment the Coastal Zone Management Program by strengthening State and local planning for all energy development and facility siting to avoid negative impacts, both socio-economic and environmental.

Credit Assistance (Sec. 308(d) (1), (2), (3)) includes loans, loan guarantees, and repayment assistance for front-end financing of public facilities made necessary by coastal energy development. The 1976 CZMA amendments setting up CEIP established credit assistance as the centerpiece of CEIP. Loans were to be the first resort of financing public facilities and services. Formula grants were to be used first to retire CEIP guaranteed bonds. Communities, however, preferred grant assistance to loans for obvious reasons. The 1978 CZMA amendments deleted sections requiring loans to be used first and restricting the first use of formula grants.

Other features of CEIP legislation and administration reduced the attractiveness of the program. First, CEIP guaranteed bonds were not exempt from Federal taxation as are most other municipal securities. Second, the Office of Management and Budget (OMB) initially restricted CEIP loans to average Treasury interest rates. In 1978, OMB permitted loan awards in "special circumstances" at various below-Treasury rates. "Special circumstances" are determined by analyzing the applicant community's indebtedness, tax burden, and statutory interest rate ceilings. In addition, loans may be awarded at a 5% rate for environmental and fisheries related projects. The new interest rate criteria have substantially increased loan applications. At the present time there are project applications totaling over $150 million on hand at OCZM.

Environmental and Recreational Loss Grants (Sec. 308(d) (4)) fund

projects to prevent, reduce, or ameliorate unavoidable damage resulting from coastal energy activity. By administrative policy, these grants have been directed toward states which are not eligible for formula grants, which are generally the Great Lakes States, Hawaii, and U.S. territories who have little or no oil and gas activity.

OCS State Participation Grants (Sec. 308(c) (2)) were established by the 1978 amendments to CEIP to encourage greater State and local involvement in OCS leasing. Supporters of these grants hoped to expedite OCS development through gaining more State and local cooperation in the leasing process.

C. Program Administration

CEIP is administered by the Federal Office of Coastal Zone Management (OCZM), part of the National Oceanic and Atmospheric Administration (NOAA) of the Department of Commerce. States receiving CEIP aid must participate in the Federal Coastal Zone Management (CZM) Program. The designated State agency for CEIP receives and evaluates local applications, receives concurrence based on program consistency from the State's CZM agency and forwards the State-approved applications to the Federal CEIP staff for approval. Federal administrators then review the application and, if approved, complete the award process.

Each aid category is allotted to States by specific formulas. Planning grants are allotted on the basis of a new energy facility inventory prepared by CEIP staff. Loans and environmental grants are distributed according to the formula provided by the legislation.

The CZMA authorizes CEIP appropriations of $130 million per year in formula grants through FY 1988 and $5 million per year in OCS participation

grants through FY 1983. The Coastal Energy Impact Fund, authorized as a $750 million revolving fund through FY 1986, funds credit assistance, rplanning grants, and environmental grants. Funds appropriated remain available until expended.

Tables 1, 2, and 3 following present the appropriation and obligation history of CEIP.

Table 1 - CEIP Appropriation History (Dollars in Thousands)

	FY 1977	FY 1978	FY 1979	FY 1980	Est. FY 1981
Regular CZM Appropriation					
Formula Grants	$ 10,000	$ 17,690	$ 27,750	$ 27,750	$ 7,172
Subtotal:	10,000	17,690	27,750	27,750	7,172
CEIF Appropriation					
Planning Grants[a/]	3,500	3,500	-	-	-
Credit Assistance	110,000	110,000	-	[b/]	-
Environmental Grants[a/]	1,500	1,500	-	-	-
OCS State Participation Grants[a/]	[c/]	[c/]	-	-	-
Program Management[a/]	[d/]	[d/]	-	-	-
Subtotal:	115,000	115,000	-	-	-
Total CEIP	$125,000	$132,690	$ 27,250	$ 27,250	$ 7,172

[a/] Funded with reprogrammed loan funds, FY 1979-81.

[b/] $35.4 million in CEIP credit assistance funds were rescinded for FY 80.

[c/] Not authorized until FY 79.

[d/] Funded from CZM Program Management until FY 79.

Table 2 - CEIP Obligation History (Dollars in Thousands)

	Actual			Estimate	
	FY 1977	FY 1978	FY 1979	FY 1980	FY 1981
Regular CZM Appropriation					
Formula Grants	$ 799	$ 13,112	$ 16,112	$ 30,000	$ 30,339
Subtotal:	799	13,112	16,112	30,000	30,339
CEIF Appropriation					
Planning Grants	360	3,881	2,279	1,980	5,480
Credit Assistance					
Obligations	-	61,018	26,974	33,299	46,269
Recission	-	-	-	(35,400)	-
Environmental Grants	-	1,045	1,446	942	2,567
OCS State Partici-					
pation Grants	NA	NA	NA	2,500	3,500
Program Management	NA	NA	453	503	620
Subtotal:	360	65,944	31,152	40,224	57,436
CEIP Total:	$ 1,159	$ 79,056	$ 47,264	$ 70,224	$ 87,775

Table 3 - CEIP Carryover History (Dollars in Thousands)

	Actual			Estimate	
	FY 1978	FY 1979	FY 1980	FY 1981	FY 1982
Regular CZM Appropriation					
Formula Grants	$ 9,201	$ 13,779	$ 25,417	$ 23,167	-
Subtotal:	9,201	13,779	25,417	23,167	-
CEIF Appropriation					
Planning Grants	3,140	2,759	480	2,000	-
Credit Assistance	110,000	158,982	123,588	54,889	-
Environmental Grants	1,500	1,955	509	1,067	-
OCS State Participation Grants	-	-	-	500	-
Program Management	-	-	83	-	-
Subtotal:	114,640	163,696	124,660	58,456	-
CEIP Total	$123,841	$177,475	$150,077	$ 81,623*	-
Carryover not the result of deferral	$123,841	$177,475	$150,077	$ 6,734	-

*Of the carryover into 1981, $74,889,000 result from deferrals of funds as follows:

- Regular CZM appropriation $ 20,000,000
  CEIF appropriation 54,889,000
  Total $ 74,889,000

Through the first half of FY 1980, CEIP has awarded over $150 million in aid for planning, formula, and environmental grants and loans. As of March 31, 1980, neither the OCS participation grants, repayment assistance, nor loan guarantees had been awarded. A breakdown of total awards, by regions, follows:

Table 4 - Purpose of CEIP Awards
by Region[1/], 1977-March, 1980
(Dollars in Thousands)

	Municipal Facilities and Services	Environmental Protection	General Planning and Administration	Mixed Purpose	Total
Atlantic	$ 2,345.9	$ 950.0	$ 4,050.4	$ 124.8	$ 7,471.1
Gulf of Mexico	80,244.6	5,516.1	1,659.5	-0-	87,420.2
Great Lakes	88.3	670.0	435.4	-0-	1,193.7
Pacific	98.1	2,198.7	1,796.9	212.0	4,305.7
Alaska	53,128.1	648.2	687.2	-0-	54,463.5
Total	$135,905.0	$9,983.0	$ 8,629.4	$ 336.8	$ 154,854.2

[1/] Appendix B describes regional composition and contains an additional discussion of CEIP awards.

For analytical purposes, CEIP projects have been classified into three general categories, Municipal Facilities and Services, Environmental Protection, and General Planning and Administration. The classification is somewhat arbitrary. Infrastructure improvements such as parks, solid waste, and water and sewer projects have been considered Municipal Services rather than Environmental. Approximately one-third of funds in the Municipal Services category was awarded for these purposes. Planning for municipal facilities was included in Municipal; planning for environmental projects was listed as Environmental. Only planning projects which address both municipal and environmental concerns were included in the Planning Category. The Municipal Services category includes $100 million in loan awards which can only be used for provision of infrastructure. The majority of formula grant aid has also been awarded for Municipal Services projects.

D. Past, Current, and Future Coastal Energy Development Locations

Key to any analysis of CEIP are projections of future coastal energy development as well as present energy locations. This section summarizes CEIP assumptions of energy development, using indicators of five broad types of energy activity. These five categories—oil and gas, coal, refineries, LNG, and electric generating plants—are those used by OCZM in allotting CEIP assistance. OCS oil and gas activity determines the distribution of CEIP formula grant aid. In addition, State production of oil and gas and coal activity are termed "coastal energy activity" and are used in allotting credit assistance and (d) (4) environmental grants. The other energy categories are included in planning grant allotments which are based on new energy facilities.

This section provides a background for the program assessment section by highlighting the areas where CEIP is now active and will be active in the next five years.

Oil and Gas Activity. The Gulf of Mexico has been the overall leader in oil and gas development since 1954 when Federal OCS lease sale activity first began (Table 5). The Pacific Region, however, with its close-in Southern California fields, leads in oil production in State waters.

New oil and gas OCS leasing will be concentrated in Alaska with the Gulf of Mexico ranking a close second (Table 6). Figure 1 presents the data graphically. Projections as to Alaska's future importance as a producing area are speculative and are based solely upon unproven estimated reserves. Should the planned Alaska exploration not yield commercially recoverable reserves, future production will continue to be highest in the Gulf of Mexico.

Transportation of oil and gas, a "coastal energy activity" is illustrated by port tonnage figures in Table 5.

Table 5 - Oil and Gas Activity by Region, 1954 - 1979

	AK	ATL	GL	GM	PAC	TOTAL
1. Federal Acres Leased	904,351	1,104,485	0	13,560,032	1,880,319	17,449,187
2. Offshore Wells Drilled						
a. State Waters (End 1978)	353	0	0	4,397	3,175	7,925
b. Federal Waters (End 1978)	10	0	0	14,993	377	15,380
3. Accumulated Production (End 1978)						
a. State Waters						
(1) Oil (bbls)	663,435	0	0	1,194,910	1,674,769	3,533,114
(2) Gas (MMCF)	733,690	0	0	10,535,839	628,267	11,897,796
b. Federal Waters						
(1) Oil (bbls)	0	0	0	4,672,228	180,847	4,853,075
(2) Gas (MMCF)	0	0	0	39,153,441	70,331	39,223,772
4. Port Tonnage (crude oil)	7,179,900	172,969,787	635,607	175,843,409	73,984,377	430,613,080

Source: DOI and Army Corps of Engineers

Table 6 - Federal OCS Acres Scheduled for Oil and Gas Leasing

1980 - 1984 By Region

Region	Acreage
Alaska	4,721,000
Atlantic	2,576,000
Great Lakes	0
Gulf of Mexico	4,342,800
Pacific	2,455,480
Total	14,095,280

Source: Derived from Department of the Interior data.

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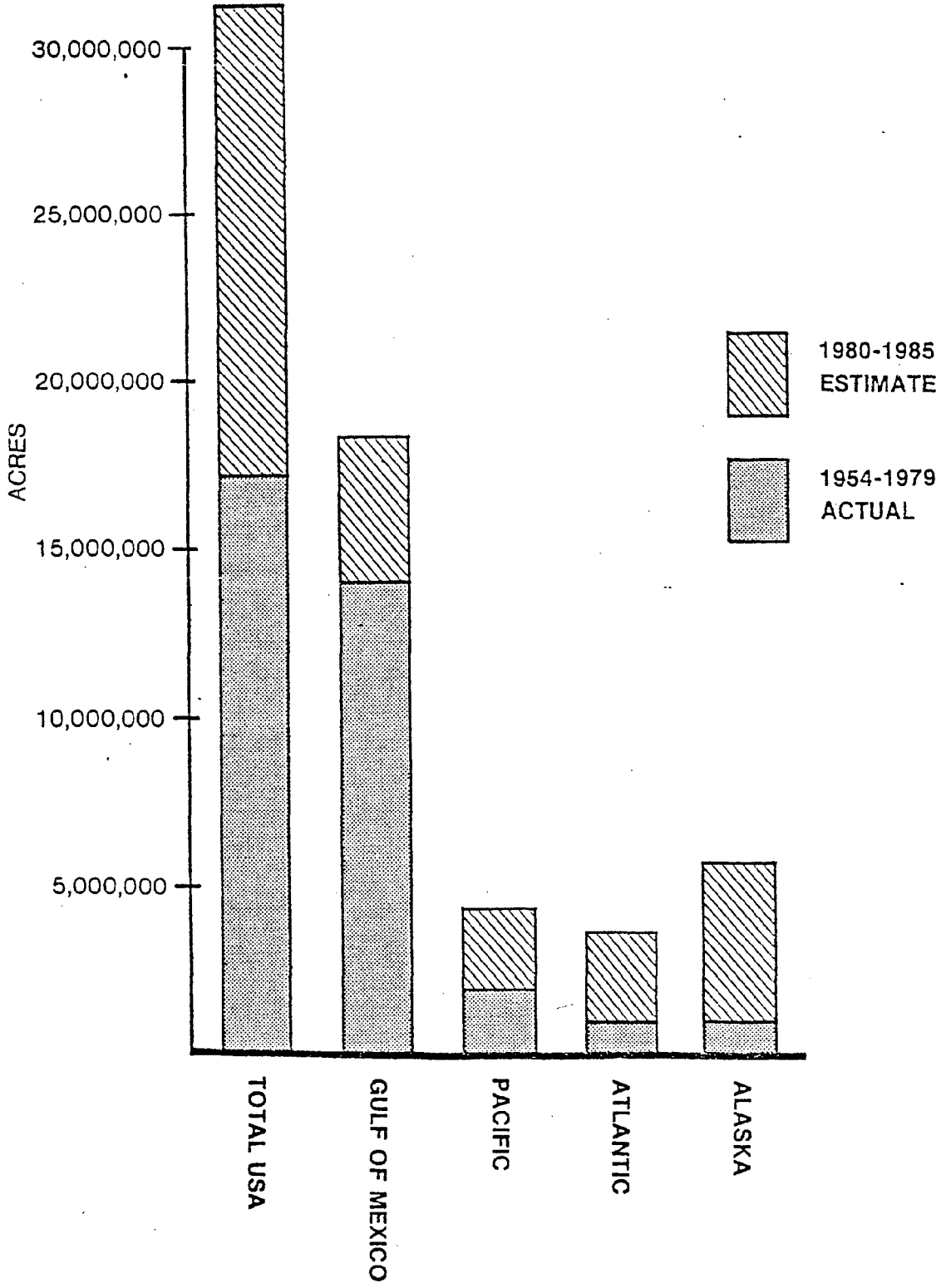
Source: Derived from Department of the Interior data.

Figure 1: Total Oil and Gas
Acres Leased 1954-1984



Source: Derived from Department of Interior data

Coal Activity: Coal shipping activity is concentrated in the Great Lakes and Atlantic Coast States (See Table 7). In 1976, approximately 53 percent of coal shipped in U.S. ports and waterways passed through the Great Lakes.

Table 7 - Shipments from Major Ports, 1976

Region	Tons	Percent
Alaska	24,525	1/
Atlantic	91,762,916	40
Great Lakes	120,213,246	53
Gulf of Mexico	16,820,785	7
Pacific	2,348	1/
Total	228,823,820	100

1/ Less than one percent.

Source: Army Corps of Engineers

The actual use of coal is also most highly concentrated in the Great Lakes region. The largest number of coal-fired coastal electric generating plants are located in the Great Lakes, as are significant industrial users of coal. Coal activity in the Atlantic and Gulf regions are more heavily export oriented as exemplified by Baltimore (53 percent export), Norfolk, Virginia, (88 percent export) and Mobile, Alabama, (41 percent export).

Future increases in the use of coal are most likely to continue to occur in the Great Lakes and Atlantic regions. These regions will turn increasingly to coal for both industry and electric generation as oil becomes increasingly scarce and expensive and as the Federal coal

conversion program for power plants goes into effect. Because the Atlantic is presently the most heavily dependent oil region, it is likely that the major percentage share of new coal related impacts will be experienced there (Table 8).

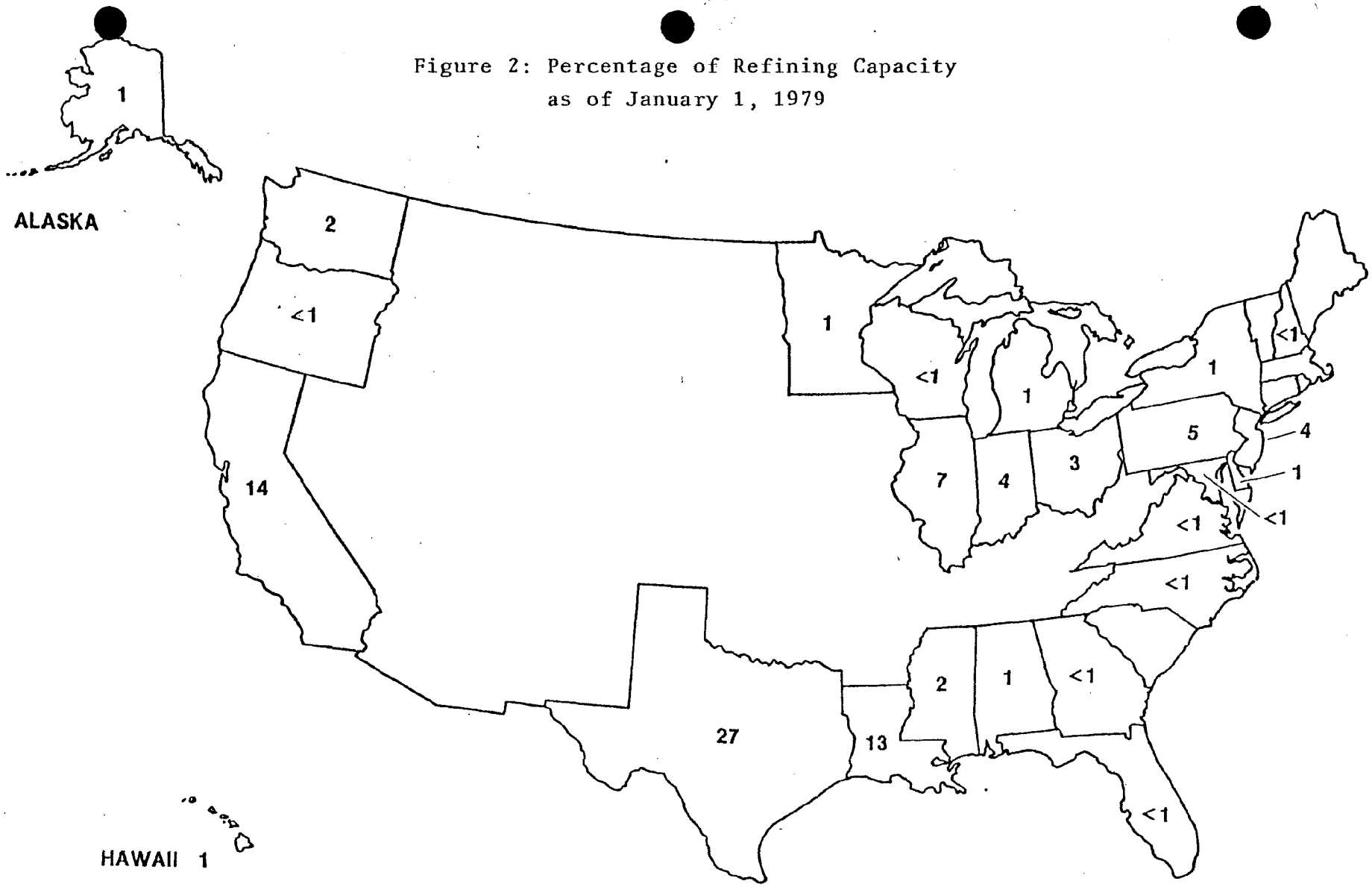
Table 8 - Coal Fired Generating Plants Greater Than 100 Megawatts

Region	Existing	Additional Planned	Conversions to Coal
Alaska	0	0	0
Atlantic	21	10	80
Great Lakes	74	6	8
Gulf of Mexico	13	4	4
Pacific	0	2	0

Source: Department of Energy

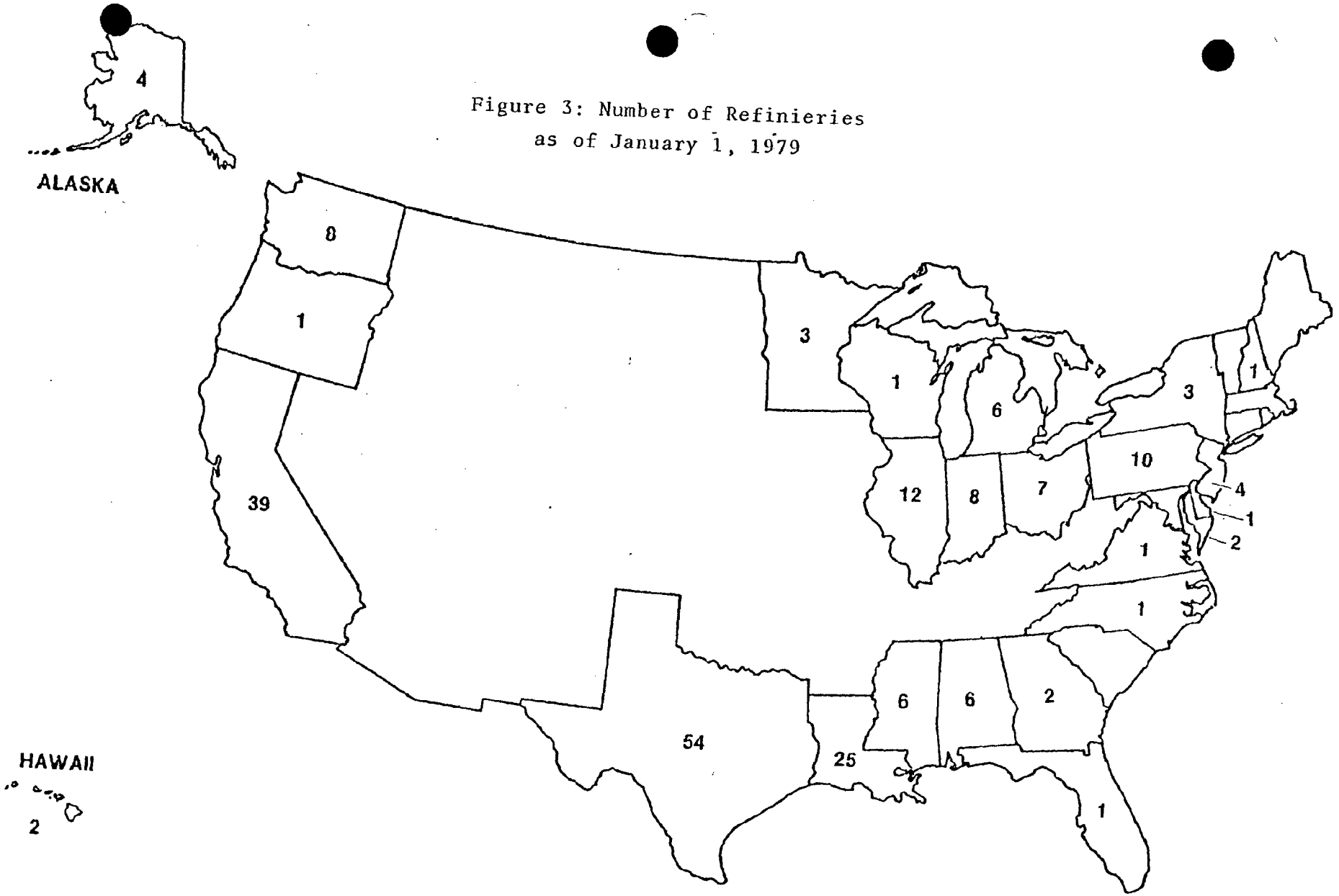
Refineries - The Gulf of Mexico has the greatest concentration of both refining capacity and numbers of refineries in the United States. This region contains 43 percent of existing U.S. refining capacity. Nearly nine-tenths of this 43 percent is located in coastal areas. With the exception of Alaska, which has only 1 percent of U.S. refinery capacity, the remainder of refining activity is relatively evenly distributed, as follows: Pacific, 17 percent; Great Lakes, 16 percent; and Atlantic, 12 percent. About 89 percent of U.S. refining capacity is located in coastal States. Figures 2 and 3 illustrate refining activity distribution.

Figure 2: Percentage of Refining Capacity
as of January 1, 1979



Source: Derived from data in the Oil and Gas Journal, March 26, 1979

Figure 3: Number of Refinieries
as of January 1, 1979



Source: The Oil and Gas Journal, March 26, 1979

Because of environmental siting constraints and declining U.S. oil resources, it is doubtful that the current distribution of refining capacity will shift significantly. Most shifts will result from expansion or modernization of new facilities.

Added capacity will probably not be needed, as the purpose of the National Energy Plan is to back out imported crude oil and replace it with domestic crude and conservation. There may be some pressure to replace older refineries and to relocate refining capacity close to markets due to the rising costs of transporting finished petroleum products.

LNG Facilities - The number of LNG receiving terminals in the United States is limited and unlikely to expand significantly in the future. Although LNG facilities may have a significant impact on the communities in which they are located, their overall impact is small.

Four facilities are operating currently in the United States, one each in Georgia, Massachusets, Maryland, and Rhode Island. A fifth facility, located on Staten Island in New York City, has been constructed but has not been allowed to open pending resolution of legal and safety issues. A sixth facility is under construction in Lake Charles, Louisiana. Two other terminals have been proposed, one near Matagorda Bay, Texas, and one in California. The Kenai, Alaska LNG liquefaction plant is the only such facility in the U.S. A second plant has been proposed for Alaska's Cook Inlet.

Electric Generating Plants: As with refineries, electric generating plants are a widespread form of energy activity. Currently 520 electric generating plants of 100 megawatts or greater generating capacity are being operated in U.S. coastal counties. As of the end of 1979, 106 new facilities were proposed for construction in coastal areas. Table 9

presents these facilities by region.

Table 9 - Electric Generating Plants in Coastal Zone Areas of 100 Megawatts or Greater, 1979

Region	Existing	Proposed	Total
Alaska	-	-	-
Atlantic	220	36	256
Great Lakes	115	26	141
Gulf of Mexico	93	12	105
Pacific	92	32	124
Total	520	106	626

Source: Department of Energy

The greatest number of facilities exist on the Atlantic coast, which will not change in the future. The Great Lakes will remain the second most active region, but the Pacific, which at this time has only one plant less than the Gulf, will increase its number of facilities significantly and will surpass the Gulf. Alaska neither has large power plants nor is planning to construct any.

Summary of Activity - As indicated above, the intensity and types of energy activity vary throughout the United States. Each of the regions specializes somewhat in a particular type of energy development. The Gulf is the current leader in oil and gas production and refining; however, if sufficient reserves are found, Alaska may surpass the Gulf in production.

The populated regions—Atlantic, Gulf, Great Lakes, and Pacific—are most likely to be active in electric generation and refineries, demand-sparked activities. Coal is a concern in the older industrialized areas of the Great Lakes and Atlantic.

The most significant changes expected in the next five years are the increasing importance of Alaska in oil and gas production, the increase in the use of coal, through power plant conversions and increased shipping, and the additional numbers of power plants planned. Additionally, DOI has scheduled lease sales which, if past experience holds true, will result in the leasing of nearly as many OCS acres in the next five years as in the last twenty five.

These changes are important in assessing CEIP's future. If oil and gas in any significant quantity is found in Alaska, CEIP will undoubtedly be tapped for infrastructure projects. Increasing use of coal might cause an increase in negative environmental effects; if coal shipping activity consumes additional dock space, there will be a need to provide public facilties. Power plants most commonly involve siting considerations, and as such will tap CEIP planning grants to provide the necessary expertise.

Impacts from energy development are largely dependent upon the type of energy activity involved as well as whether the development is specualtive, expected, or current. These impacts and CEIP's success in mitigating them are discussed in the next chapter.

III. PROGRAM ASSESSMENT

A. Introduction

This section of the report examines CEIP's success in meeting the following legislative objectives:

- Improve State and local capacity to deal with expanded coastal energy activity.
- Mitigate environmental and recreational losses stemming from energy development.
- Provide front-end financing to communities faced with "boomtown" and other socio-economic effects from rapid, energy-spawned industrialization.
- Encourage State participation in the Coastal Zone Management program.
- Provide limited compensation or "equity" to States adjacent to OCS oil and gas development.
- Reduce State and local resistance to coastal energy development.

As part of the evaluation of the program's effectiveness in meeting these objectives, this assessment also examines the extent to which the expected coastal energy development impacts have occurred. It also discusses several administrative initiatives, most of which have already been implemented by OCZM, that should improve CEIP performance significantly.

In preparing this section of the report, the study team conducted a literature search which encompassed the few independent academic studies on coastal energy development. Planning and assessment studies composed the

bulk of the written material examined by the team. Additionally, the evaluation team interviewed OCZM, NOAA, DOI, DOE, and State and local CEIP personnel and participated in field trips to the Gulf of Mexico and Alaska as part of its research.

The assessment discussion is organized according to the six legislative objectives of CEIP and concludes with an assessment of administrative concerns which would improve program performance.

B. Improve State and Local Capacity to Deal With Expanded Coastal Energy Activity

The evaluation study team found more agreement on the value of CEIP as an aid to improved state and local capacity to handle energy issues than on any other objective of the statute. Officials at all levels of government praised the contribution CEIP has made, primarily through provision of planning funds.

With respect to OCS activity, the 1978 amendments created the Section 308(c) (2) OCS participation planning grants program to assure State capacity to deal with the volume and pace of proposed Federal lease sales. States have been highly supportive of this program and in many cases funds have been used to establish a review capacity in the Governor's Office to assure that the chief executive has the appropriate resources at his or her quick disposal. This has brought high-level visibility to CEIP and CZM in general.

Other CEIP funds have also been used to help establish and develop State energy analysis capability, particularly in frontier States where energy has only recently become a major issue. In many cases, the availability of CEIP funds was well-timed for this effort; the program is a

major source of funds for new energy offices in a number of States, e.g., New Jersey, Oregon, and Wisconsin. In others, for example, Maine, New Hampshire, and Alaska, the funds have augmented the energy policy capacity of well-established State planning agencies. In a third group of States, e.g., California and North Carolina, the funds have been awarded directly to powerful Coastal Commissions and have resulted in expanded capacity for them to deal with emerging energy issues as part of the overall State CZM strategy.

While most comments received by the study team on this objective related to planning grants, construction projects have in some cases also supported the goal of improved capacity to handle energy issues. A good example is Maine, which used its entire FY 1979 formula grant allocation to provide 25 percent of the cost of a State oilspill treatment facility serving the Portland region. The decision to propose this project derived from a State determination that fear of oilspills and limited cleanup capacity were perceived as major constraints on the expanded use of Portland Harbor for a number of economic and recreational purposes.

Perhaps most often cited as contributing to improved State capacity was the use of CEIP funds to staff permanent State offices with professionals who were capable of helping State and local officials resolve complex energy issues in a timely fashion, and could draw upon colleagues in other States and in the Federal government for further expertise. Thus, there are people who know "how to do it" with respect to coal conversion of powerplants in Massachusets, coal docks in Alabama and Wisconsin, pipeline alignments in Louisiana, New Jersey, and Washington, deepwater ports in Texas, Delaware, and New Jersey, and new powerplants, port expansion, and OCS leasing, explorations, and development in many States.

C. Mitigate Negative Socio-Economic and Environmental Effects of Coastal Energy Activity

1. General Experience

a. Socio-Economic Effects

One of the primary purposes cited for the CEIP legislation was to provide "front-end" funding to communities to avert "boomtown" patterns and similar socio-economic effects that rapid, energy- spawned industrialization was expected to produce. Testimony at CEIP hearings and the floor debate on CEIP described such hardship conditions. Studies of negative experiences in Texas and Louisiana in the 1950's were prominently mentioned, as well as the landmark Baldwin[1/] study of the adverse effects in Scotland of the development of the North Sea Oil Fields.

A study[2/] financed by the State of Texas in 1976 listed at least the following potentially negative effects which arise from rapid industrial growth:

(1) Infrastructure is severely burdened:

(a) Permanent and rental housing units are in short supply;

(b) Fresh water supply and distribution are inadequate;

(c) Garbage and solid waste increase substantially;

[1/] Baldwin, Pamela L. and Baldwin, Malcolm J. Onshore Planning for Offshore Oil: Lessons from Scotland, New York, Universe Books, 1975.

[2/] Research and Planning Consultants, Inc. (RPC), Growth Impact Issues, Austin, Texas, 1976, pp. 1-16.

(d) Demands on transportation systems, both for greater volume and for greater access, increase significantly;

(e) Fire protection services are overburdened;

(f) Health services experience increased demands;

(g) Local school districts experience increased demand for more school spaces and for better quality education;

(h) Demands for outdoor recreational facilities increase substantially;

(i) Crime rates increase significantly; prevention rates remain static;

(j) Administrative capacity of local government is strained.

(2) There is very little planning for growth of the magnitude that is experienced. Few communities are able to act effectively to counteract negative impacts:

(a) Rural areas exercise little control over growth; uncontrolled and imcompatible growth often results;

(b) Prices of vacant land increase significantly;

(c) Secondary subsidiary growth occurs, exaggerating the need for services;

(d) Despite the need for increased services, communities have little potential for increased borrowing.

(3) The rapid growth results in significant envoronmental problems, such as water pollution, inadequate sewage treatment, erosion and siltation of wetlands, killing of fish and wildlife, reduction in operational space for the fishing industry, urban congestion, and navigational conflicts.

On the other hand, it has frequently been mentioned that significant economic benefits, such as expanded employment opportunities and long-term increases in the tax base, ensue from energy development. A 1976 study, conducted by HUD*, described the public sector fiscal effects of an onshore energy project on a small community. Figure 1 (taken from the study) illustrates the typical patterns of fiscal demands imposed on small communities by energy resource extraction. Briefly, the chart illustrates that at the beginning of the development phase, public sector costs for facilties and services rise much faster than the revenues generated. As the development phase (involving short-term construction) ends, revenues out-run costs, by a wider margin than costs exceeded revenues prior to the development.

If this experience is broadly applicable, then the most appropriate means of offsetting the initial deficit would be through advance funding of public sector projects, with obligations being met when development provides a surplus. Loans have, therefore, been proposed as the means of ameliorating some of the negative socio-economic effects of rapid energy development. Communities may experience, however, serious difficulties obtaining such loans in the private market. For example, legal or political barriers exist to borrowing for energy impact activities; and in many other cases, the uncertainties related to energy development raised questions about the security of such loans. In such cases, Federal assistance in the form of loans or loan guarantees would be indicated.

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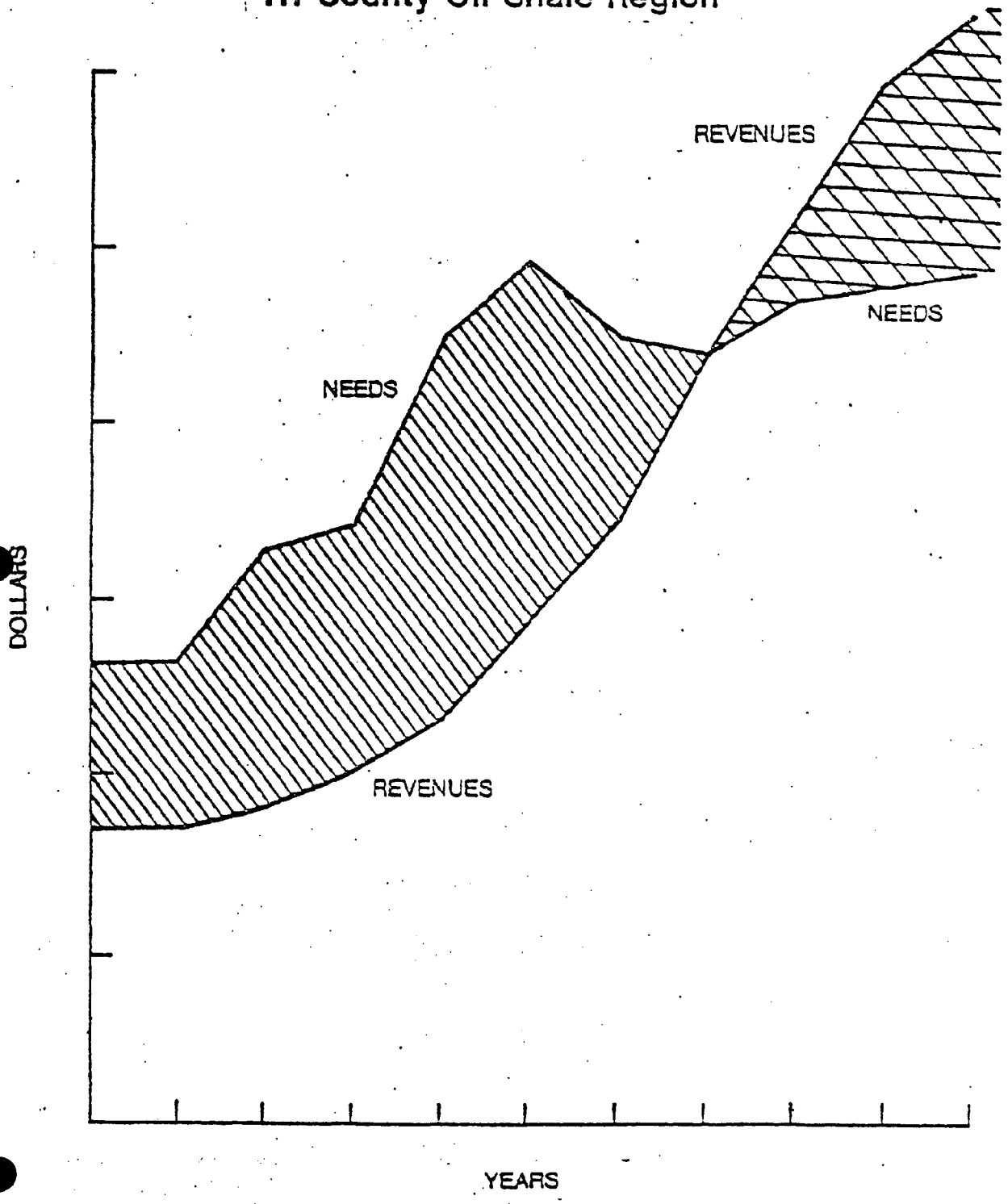
*U.S. Department of Housing and Urban Development, Office of Community Planning and Development, Rapid Growth from Energy Projects: Ideas for State and Local Action, March 1976.

FIGURE 1

Total Local Revenues and Expenditures: Tri-County Oil Shale Region



SOURCE: RAPID GROWTH FROM ENERGY PROJECTS

There are instances of energy impact where the conditions in Figure 1 may not exist because deficits are not followed by over-compensating revenue surpluses. Remedies other than loans may be needed to overcome the negative effects of such energy development. For example, the second phase involving huge increases in revenue may never take place:

(a) In cases of Outer Continental Shelf development, where the States and communities are not able to tax the actual energy facility, but are limited to taxing onshore support facilities;

(b) In cases where "urban sprawl" and housing shortages occur, taxpayers may move out of the tax base of the local entity with the heaviest need for public expenditures.

There are also instances in energy development in which the first phase, that of huge increases in public costs, may never take place. In these cases, the area may have underutilized infrastructure capacity, significant unemployment or is a very large community, and the effects of increased energy development can be absorbed by the area. This situation currently exists is some areas of the Atlantic Coast Region with regard to the OCS oil and gas exploration now underway. Interestingly, most approved and emerging State coastal zone management programs encourage locations in exactly such areas.*

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*The New Jersey, Massachusets, and Mississippi CZM programs are good examples of such policies.

The evaluation team was not able to document fully the theoretical extent of those instances in which loans are unlikely to be viable or necessary, or where grants would be essential. In the absence of such definitive information, but based on the available studies, the team believes that there are only rare instances that the public costs of correcting for socio-economic effects are not compensated by later increases in public revenues. The team believes, for example, that it was most likely that the instances of "urban sprawl" which might reduce the available tax base would take place in cities with underutilized infrastructure. Further research in this area may be needed.

b. Environmental Effects

Coastal energy development, particularly OCS development, has also long been recognized as a probable source of adverse environmental effects and one of the primary purposes of CEIP legislation was to mitigate those effects. The 1969 Santa Barbara oil spill, which damaged marine and other wildlife and adversely affected the area's tourism industry, is perhaps the best known example.

Environmental effects from energy development can be more noticeably severe than socio-economic effects. In addition to the obvious effects of oilspills, negative effects from oil and gas development include bottom disruption from platform placement,wetland channelization from pipeline placement, and fish and wildlife kills. Other types of coastal energy activity, particularly coal transport and use, oil refining and tanker operations, are also significant sources of adverse environmental effects such as air and water pollution.

Indirect environmental effects on the human environment from rapid energy development may be equally apparent. These include sprawl, poorly designed development including temporary housing facilities and the like. In fact, a study of Morgan City, Louisiana, indicated that this type of environmental impact was the most pronounced.*

Loans are generally thought to be inappropriate means for counteracting adverse environmental impacts, as the mitigation measures rarely create perceived direct economic benefits to the community to offset initial costs. For example, when a community purchases wetlands to protect them from development pressures, no additional tax base or employment flows from the purchase. For these cases, Federal grants to protect the environment are appropriate.

2. CEIP's Performance in Mitigating Impacts

Despite the theories described above, the question must be posed whether negative socioeconomic and environmental effects have in fact been caused by coastal energy development, and, if so, whether CEIP has helped mitigate them. Little disagreement exists that adverse environmental effects occur if not mitigated, and that CEIP has helped with such mitigation. However, while pre- and post-1976 energy developments have undoubtedly had socio-economic impacts which CEIP has helped mitigate, no areas spurred by strictly post-1976 energy development can be considered boomtowns in the sense of the theory described above; some areas are experiencing continued rapid growth in the Gulf of Mexico, and some future

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*Louisiana, State Planning Office, Outer Continental Shelf Impacts, Morgan City, Louisiana, University of Southwestern Louisiana, June, 1977.

energy development scenarios indicate that the boomtown phenomenon may occur in the future in areas such as Alaska.

Since CEIP was established in 1976, not as much new coastal energy development has occurred as was originally expected. The OCS leasing program has slowed. OCS exploration in the Baltimore Canyon, Eastern Gulf of Mexico, and Gulf of Alaska has had disappointing results. Furthermore, only incremental increases in other coastal energy activities have occurred with no dramatic increase in negative effects.

OMB's charge for the CEIP evaluation suggests that the "boombust" phenomenon anticipated by the legislation has not occurred. While there has been no evidence of the classic "Old West" gold rush towns, some Gulf of Mexico communities have experienced very rapid growth from the 1950's to the present. Communities such as Morgan City, Louisiana, have not been able to completely accomodate the high level of energy activity and associated growth occurring there. Despite the existence of such areas continually affected by massive energy development, however, no coastal areas spurred by strictly post-1976 energy development could be considered boomtowns.

Measurement of socioeconomic and environmental impacts is complicated by the fact that increased State and local planning capabilities have helped to mitigate the effects of energy development. For example, CEIP has in one instance prevented the "boombust" phenomenon from occurring. Yakutat, Alaska, a small, native Alaska fishing village, was recently the site of OCS oil and gas exploration. Rather than immediately providing permanent infrastructure for the large influx of oil workers, the State and community, aided by CEIP, provided temporary facilities some distance from the town for the oil workers. When the exploration yielded only dry holes

and the energy industry left the area, Yakutat remained relatively unaffected. CEIP's ability to highlight the need for advance planning prevented the phenomenon from occurring.

An additional problem in assessing CEIP's performance in mitigating negative effects is the change in emphasis between the 1976 and 1978 amendments to the CZMA. The 1978 amendments clouded the "boomtown" issue by allowing CEIP formula grant projects to address impacts from past energy development as well as new development. The provision of grant aid as opposed to loans to continuing energy development areas such as Louisiana and Texas conflicts with the theory illustrated by Figure 1 for socio-economic effects.

Most of the formula grant aid for socio-economic projects provided by CEIP has been generally awarded to Gulf areas long past the initial development phase. With the exception of Alaska, OCS frontier areas have utilized their formula grants primarily for planning and environmental projects. Some analysts have criticized the Gulf's use of their formula aid. These critics, particularly environmentalists, have felt that some of the public works projects approved in the Gulf States such as police and fire vehicles and equipment, town halls, and hospitals have addressed the effects of OCS and other energy development at best indirectly.

Although provision of aid to these continuing production areas has been criticized, many local Gulf officials make the point that the communities have been impacted by such a magnitude of OCS energy development that the communities' revenues have not yet been able to catch up with demands. In any event, most observers recognize that these communities in nearly all cases were suffering from bona fide shortages at least in specific areas. However, there is no assurance that these

shortages are not temporary and could not be addressed by loans. Studies of Gulf area energy development do indicate that the shortages are accounted for in the long-run.*

Loan awards, by definition for public facility costs, have been made mostly to Alaska and the Gulf States. CEIP's record in awarding loans has been generally good. In Port Arthur, Texas, for example, CEIP financed a water and sewer project providing support for an OCS onshore support base that could not have been financed through any other source because of political and legal difficulties. The onshore support industries had consumed the existing water facilities so that the community had considered rationing water to the residential users in the area. Additionally, CEIP loans have provided expansion of water and sewer facilities and other basic infrastructure needs in several Alaska communities through a $50 million CEIP loan award made to the Alaska Municipal Bond Bank.

Federal, State, and local officials interviewed by the study team have generally given CEIP good marks in fostering environmental protection. Unlike socio-economic effects, environmental impacts can be as pronounced from continuing operations as from the initial exploration and development phases. State officials, noting the large amounts of CEIP funds spent for wetlands protection and restoration and oil spill prevention, indicate that such projects would not have been carried out in absence of CEIP funding.

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*Ibid.

D. Encourage State Participation in the Coastal Zone Management Program

Congress clearly intended the CEIP program to serve as an incentive for otherwise reluctant States to pursue the development of Federally-approvable coastal zone management programs; eligibility for CEIP is directly tied to either having an approved program or making satisfactory progress towards one. The evidence that it has served as an incentive is most positive in the Gulf, as might be expected from the heavy focus of CEIP assistance on that region as well as traditional skepticism over government land and water regulations. In other areas the record is mixed.

In the Gulf, the CEIP has clearly been an important incentive for CZM. In Texas earlier this year, outgoing Governor Briscoe chose not to terminate the development of a CZM program primarily due to pressure from localities with pending CEIP applications (e.g., Port Arthur and Corpus Christi). Incoming Governor Clements likewise chose to continue program development efforts, influenced at least in part by the same localities. While it remains unclear if Texas will submit an approvable program, there is little doubt that CEIP has helped to push the State through a very difficult period for CZM.

In Louisiana, Congressmen and State legislators both confirm that CEIP was critical to enactment of the State's comprehensive CZM legislation. The State first enacted a measure that did not meet Federal approval standards. A comprehensive act meeting Federal requirements was enacted in the next session under the leadership of coastal legislators who did not want CEIP funds jeopardized. More recently, momentum was lost with a change of Governor; the Governor's personal staff has stated to OCZM that the decision to proceed to completion was based in large part on CEIP considerations. Federal approval is scheduled for September, 1980.

Louisiana's coast comprises one-third of the Nation's wetlands, and produces one-third of its oil and gas and one-third of its fisheries by value.

Finally, in Mississippi, legislation gave local governments an option to veto development of an approvable CZM program by failing to adopt certain land-use designations by November 15, 1979. Two out of three counties failed to adopt and the program was suspended by NOAA. Supporters of CEIP projects, especially in Jackson County, successfully petitioned the legislature to remove the local veto from the law. The revised law was the second measure passed by the January session of the legislature and was immediately signed by the Governor. The CZM program is now scheduled for final Federal approval in September.

In New Hampshire, potential loss of CEIP funds appears to be a major motivation for the State Planning Office to keep pressing for legislation needed for the approval of the State's CZM program. In the Virgin Islands, the promise of loan funds for some favored projects was used by CZM proponents as one argument to obtain passage of strong comprehensive CZM legislation. Pennsylvania indicated fairly clearly to OCZM that CEIP benefits were one major reason for the State returning to the planning program and obtaining passage of three new laws that will allow Federal approval of the State's CZM program.

On the other hand, CEIP incentives were clearly insufficient to maintain interest in CZM in Georgia, Virginia, and Indiana, where neither the legislatures nor the Governors would support the new authorities needed for Federally approvable programs. In all three cases, OCZM made clear the multiyear loss in CEIP funds that would result from these decisions.

E. Provide Limited Compensation or Equity to States Adjacent to OCS Areas

As indicated above, a purpose of CEIP is the provision of "equity" to States and communities which host OCS development. Legislators recognized that the theories summarized in Figure 1 were distorted with respect to OCS development by local entities' inability to tax OCS development. It should be noted that, in the case of inland mineral extraction on Federal lands, States receive a 50% share of the royalties received from inland mineral leases.

The OCS formula grants do not provide funding close to the magnitude that such a royalty sharing program would provide. Table 1 below compares FY 1979 CEIP awards to a program similar to the inland mineral sharing program.

Table 1

Comparison of Proposed 50% OCS Revenue Sharing Program and CEIP Awards
Selected States (Dollars in Thousands)

State	FY 79 Projected 50%* Revenue Share	FY 79 CEIP Awards
California	$ 6,507	$ 842
Louisiana	672,498	21,350
Texas	78,513	17,471
Total:	$ 757,517	$ 44,532

*Half of Federal revenues received from OCS leasing in FY 79.

Source: Derived from Outer Continental Shelf Statistics, DOI, USGS, and OCZM Statistics.

The existence of CEIP has not reduced local desires for a royalty sharing program. Many Gulf officials interviewed stated that while they liked CEIP, they felt that the Federal government "owed" the States royalty sharing for their hosting the OCS developments. If anything, CEIP has made States more aware of the potential of suffering environmental and socio-economic losses from energy development.

F. Reduce Opposition to OCS Leasing and Other Energy Development

At least implicit in the legislative intent of CEIP is the desire to reduce State and local opposition to energy development of all kinds. It is difficult to assess the degree to which this has occurred. Most of the CEIP funds have gone to States that already favor energy development, and the remainder is far from enough dollars to change State attitudes.

CEIP has not muted State and local assertion of their concerns over energy development, but there is at least some evidence that funds going to build up State capacity to handle energy issues may have made States and localities more aware of the issues, more creative about ways to live with increased coastal energy activity, and more capable in negotiating with Federal agencies.

With respect to OCS oil and gas activity, in 1976 many States outrightly opposed expanded OCS leasing, but by 1980 this list had dwindled. Partially responsible were changes in State leadership (e.g., from Governor Dukakis to Governor King in Massachusetts), but there were evidently genuine changes of view in places like New York, New Jersey, and Delaware. Rather than fight OCS leasing, such States began to determine how to deal with it. Opposition to the Beaufort Sea leases in Alaska came from environmental groups and local government, not from the State, which

was willing and able to work out lease stipulations. The State now actively opposing offshore leasing is California, with respect to its Central and North Coast, but even California has accomodated extensive leasing in Southern areas.

Any role that CEIP may have played in the emergence of this more reasoned approach by States is difficult to estimate. Undoubtedly, the general availability of CEIP funds to mitigate impacts has had little effect since amounts are small. However, CEIP planning grants have played an important role in building state OCS review and comment capacity as well as overall energy policy capabilities. In a number of States such as New Jersey, Oregon, and Wisconsin, CEIP is a major source of such funds for State energy offices.

Some Department of Interior sources interviewed by the team felt that the primary impact on States of CEIP was to increase the sophistication of their opposition. But this view ignores a shift of emphasis in many States in recent years from outright opposition to reasoned negotiation on the details of tract selection and lease stipulations. This shift would appear to be precisely what Congress was seeking in the 1978 amendments to the OCS Lands Act, which set up the Section 308(c) (2) OCS Participation Grants Program.

With respect to non-OCS activities, CEIP has funded a number of projects which had the effect of softening local and State opposition through the development of desirable project modifications, alternative designs, and mitigation techniques. Examples are the funding of local governments in Washington to deal with the siting of the Northern Tier Pipeline, the purchase of oilspill equipment in Rhode Island and Maine, provision of funds to Florida to map resources for priority protection from

oilspills, and studies of the impacts of coal conversion of a coastal powerplant in Massachusetts. In other cases, the program has not been as successful in moderating State concerns over classes of energy facilities. Examples are nuclear powerplants and LNG facilities, where public concerns are deepseated.

G. Administrative Improvements

1. Current Efforts

The evaluation study team had identified a number of areas of CEIP administration where action should be taken to improve program performance. Only one of these requires a change in the law, and of the others all but one is already being implemented by OCZM. In addition, a suggestion with regard to the allocation of aid is included. These reforms underway include the following:

a. Improved program direction by OCZM - The CEIP program has been criticized in the past as too independent from the rest of OCZM, too responsive to State and Congressional pressures to fund projects, and unwilling to seriously question the eligibility of proposed grants and loans. Whatever the merit of these allegations may have been, new program leadership has taken a number of steps to improve program direction, policy, and priorities. Recent appointment of new leadership for CEIP and placing of CEIP and CZM programs under the responsibility of the same Deputy Assistant Administrator, indicate OCZM's interest in better integration of all the programs under its direction.

Through a series of meetings and memoranda in recent months, improved levels of program direction have begun to emerge. Roles of other parts of OCZM in the review of CEIP projects have been more clearly delineated.

Project eligibility standards are more rigorous and subject to clearer direction and higher levels of supporting analysis. State CZM program comments and sign-off on CEIP projects have been given new emphasis and overall project quality is now a clear consideration. Many of these objectives, as well as goals for grant and loan obligations, are reflected in appropriate SES contracts, including that of the Assistant Administrator for CZM.

b. Improved program planning by States - Criticism has been levelled at State CEIP programs, especially in the Gulf region, for playing an essentially reactive role to local initiatives, and for allowing high ranking State political figures to set priorities on a case-by-case basis. In a memorandum issued by OCZM on July 7, 1980, States were asked to develop a five-year energy impact strategy identifying likely energy activities in the State, related areas of impact, and the manner in which CEIP funds would be sought to meet the impacts. Draft responses are due September 30, and final responses on October 31; the strategies will serve as a basis for future project reviews by OCZM, and will encourage States to play a more directive role in the development of CEIP applications by localities.

c. Better coordination between CEIP and other Federal agencies - The State Programs Office of OCZM has a long-standing set of relationships with other agencies through such vehicles as the DOC Shore Development Task Force and the interagency Urban Waterfront Action Group. The purpose of these and similar groups is to review program activities of participating agencies for consistency. CEIP has not participated in these efforts in the past and has not yet been worked into any of the sessions. However, OCZM leadership is committed to moving in this direction as part of the

effort to better integrate CZM and CEIP functions.

2. Areas for Further Action

Three areas remain where further consideration for administrative improvements is merited. These areas include changes to two CEIP alottment formulas to better target aid, the problem of disaggregating impacts from OCS oil and gas and State waters oil and gas, and establishment of an interest rate for loans more directly responsive to the municipal bond rmarket.

a. Allottment Formulas

Allocation mechanics have affected CEIP's performance in mitigating imapcts. The Section 308(b) formula grant mechanism allots aid based partly on continued OCS production, which assures that areas of continuing development such as the Gulf States receive the bulk of the aid. Frontier areas such as Alaska receive a large formula grant allocation during the fiscal year immediately following lease sales of OCS tracts off their shores. However, although the phase between leasing and production is crucial in planning to minimize environmental effects, the State receives no more formula grants for that lease sale until production actually occurs from the tracts, typically five or more years after the original lease sale. Thus, significant amounts of aid arrive too late to assist in fully preventing negative effects.

To better assist the frontier areas, the formula should be changed so that leasing has more weight. This action, coupled with the "no-year" money aspect of CEIP funds, should assist in ameliorating the problem. Changing this formula requires a change in legislation; such action is the only way to properly address the problems encountered by the frontier areas.

Currently, the Section 308(d) (4) environmental grants are allotted by a formula which includes factors which give great weight to labor-intensive facilities. As illustrated by LNG facilities, labor-intensive facilities are not always those which might cause the most environmental concerns. Given the current state-of-the-art in impact quantification, the team recommends developing a new formula for these grants which is based on the number of new facilities. No legislation would be required to do so.

b. Disaggregating Impacts

Problems in assessing impact and defining appropriate allotment formulas are affected by the inability to quantify energy development impacts. While it is relatively simple to obtain appropriate statistics for past and current energy activity, it is virtually impossible due to inherent uncertainties to predict future levels. Quantifying impacts is difficult due to varying economic conditions in different areas, the subjectivity of environmental values, and site-specificity of socio-economic and environmental effects.*

This problem is exacerbated in oil and gas producing areas where State production occurs next to OCS oil and gas development. These activities often share the same support bases and pipelines; in fact, environmental impacts from such accompaning factors are impossible to disaggregate.

To avoid inequities, and for administrative ease, the team suggests that in these areas although aid should be allotted on OCS factors for equity purposes, funded projects should be permitted to address non-OCS effects.

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*A more complete discussion of impact quantification issues is contained in Appendix C.

c. The Loan Interest Rate Issue

The interest rate question has plagued CEIP since its beginning. The legislative history is clear that CEIP loans are intended for those denied reasonably priced commercial credit. Specific rates are not established, although the law does say that rates shall be no more than the average charged by the Treasury. However, Treasury rates are substantially higher than those prevailing in the commercial municipal bond market.

Originally CEIP was directed to offer only Treasury rate loans. As a result, the loan program attracted few applicants. NOAA/OCZM requested lower, more competitive rates, but this request was not approved because OMB felt that lowered rates would lead to excessive loan activity. NOAA then developed the current special circumstances arrangement, which offers rates as low as 5 percent and as high as Treasury rates. The rate is determined through a review of loan purpose, community debt load, statutory interest ceilings, and ability to repay, as well as the availability of commercial credit. Projects providing strictly industrial support facilities receive Treasury rates; environmental and fisheries related projects are eligible for 5% rates.

In the opinion of the evaluation team the current arrangement is inappropriate. The team believes that limiting CEIP loans to those denied reasonably priced commercial credit nonetheless implies that CEIP loans must themselves be reasonably priced. It also believes that "reasonableness" is a market concept. In other words, as a matter of equity to Federal taxpayers and sound economic theory, the CEIP loan rates set by OCZM should, to the maximum extent consistent with borrowers' ability to pay, involve only market considerations. Better yet, the team would prefer that the special circumstances approach - which can be

administratively cumbersome - be abandoned and that flat interest rates be established. These rates should permit the program to service commercial credit, and yet reflect market conditions. They could be the average paid for a specific grade of municipal bonds, such as BAA.*

The team qualifies its endorsement of a fully market-oriented approach. It recognizes that there may be a few cases where subsidized, below-market rates would be appropriate and also justify the administrative burden. Such an instance might be encouraging OCS support activity to locate in areas with industrialized capacity by providing attractive loans to finance any required facilities. The legislative history certainly does not encourage such rates, but it does not prohibit them either. The issue should be approached directly, however, and not as "a way around" unrealistically high Treasury rates.

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*For a 20 year loan, the BAA rate currently runs about 8 percent, compared with a Treasury rate of about 10.5 percent. The best 20 year rate (the AAA rate) is about 7 percent.

APPENDIX A

The Development of Credit Assistance Budget Alternatives

CEIP has projected credit assistance and planning grant budget requirements and allotments on hypotheses concerning OCS development and other energy activity. A scenario of these activities, based on the September 1979 leasing schedule, and the resultant estimated employment, is projected; then budget requirements are derived based on these assumptions of activity level and the standardized unit cost of providing public facilities and services.

I. OCS ACTIVITY

Background

The OCS leasing process can be broken down into two phases, exploration and development. Discovery of commercial quantities of oil and gas during exploration usually leads to development activity. For purposes of this analysis it is assumed that all OCS lease sales will occur as scheduled on the Department of the Interior's June 1979 OCS Planning Schedule. Exploration will begin one year after the date of sale; development will begin three years after the date of sale.

The prediction of the level of exploration and development resulting from a specific sale is difficult to make given the large number of sales scheduled in frontier regions where knowledge exists only of geologic formations but not of the presence of developable hydrocarbons. Therefore, a range of new employment is used as a value for actual exploration and development activity.

For the Gulf and Pacific regions, between 15 and 25 percent of oil and gas employment is assumed to be associated with lease sale activities. In the frontier Atlantic and Alaskan regions, these assumptions are increased to between 30 and 50 percent. The low percentages are estimates provided in FY 1977 by oil companies. The high percentages assume increased residency as regions "age" and provide a permanent base of activity.

Methodology and Assumptions for the Calculation of OCS Employment

The following assumptions and methodology used to estimate OCS employment were primarily supplied by the National Ocean Industries Association.

TABLE A-1 - Employment per Rig/Platform (two shifts)

Exploratory Phase

Region	Offshore	Onshore	Total
Alaska	70 (140)	30 (60)	200 people
Gulf of Mexico	50 (100)	25 (50)	150 "
Pacific	60 (120)	25 (50)	170 "
Atlantic	60 (120)	30 (60)	180 "

Developmental Phase

Alaska	50 (100)	25 (50)	150 people
All Others	40 (80)	20 (40)	120 "

Exploratory Phase Assumptions:

1. Two exploratory wells will be drilled per tract.
2. Each exploratory rig drills four wells per year in Alaska and five wells per year elsewhere.
3. The exploratory phase lasts five years.

$$\text{Number of Exploratory Rigs} = \frac{(\text{number of tracts})(\text{number of wells/tract})}{(\text{number of wells/rig})(\text{number years exploratory phase})}$$

Development Phase Assumptions:

1. One development drilling for every two tracts.
2. One development drilling takes two years.
3. The development phase lasts ten years.

$$\text{Number of Development Platforms} = \frac{(\text{number of tracts})(\text{number of years per drilling})}{(\text{number of development drilling/tract})(\#\ \text{yrs.dev.phase})}$$

TABLE A-2 - Percentage of OCS Workers by Region That Are New Residents

Region	Percent of New Residents	
	Minimum	Maximum
Gulf	15	25
Pacific	15	25
Atlantic	30	50
Alaska	30	50

Using these assumptions maximum employment per lease sale can be estimated. The first step in this process is to estimate the number of OCS acres which will be leased. Following this, acres can be converted to tracts (5,000 acres = 1 tract) and employment can be estimated.

The number of tracts leased shown below in Table 3, upon which the total employment figures are based, are either actual figures for tracts leased or assumptions of how many tracts offered will be sold. The mean of all lease sales through 1979, 46% of tracts offered for sale is used. Employment estimates calculated under this method are also presented in Table A-3.

Table A-3 - Employment Estimates

Lease Sale	Tracts (Assumed) Leased	Exploratory Phase # Rigs	Exploratory Phase # Employees	Developmental Phase # Rigs	Developmental Phase # Employees
46 (AK)	(294)	29	5800	29	4350
48 (PAC)	58	5	680	6	720
49 (MLANT)	4	4	720	4	480
51 (G)	82	7	1050	8	960
55 (AK)	(184)	18	3600	18	2700
58 (G)	77	8	1200	8	960
A62 (G)	(79)	6	900	8	960
62 (G)	(79)	6	900	8	960
53 (P)	(135)	11	680	13	1560
A66 (G)	(79)	6	900	8	960
56 (SLANT)	(110)	9	1620	11	1200
60 (AK)	(80)	8	1600	8	1200
66 (G)	(79)	6	900	8	960
59 (MLANT)	(74)	6	1080	7	840
67 (G)	(79)	6	900	8	960
68 (P)	(110)	9	1530	11	1320
52 (NLANT)	(74)	6	1080	7	840
57 (AK)	(55)	5	1000	5	750
69 (G)	(79)	6	900	8	960
70 (AK)	(92)	9	1800	9	1350
71 (AK)	(55)	5	1000	5	750
72 (G)	(79)	6	900	8	960
73 (P)	(135)	11	1870	13	1560
74 (G)	(79)	6	900	8	960
75 (AK)	(92)	9	1800	9	1350
76 (MLANT)	(74)	6	1080	7	840
78 (SLANT)	(110)	9	1620	11	1320
77 (GULF)	(79)	6	900	8	960
80 (PAC)	(110)	9	1530	11	1320
81 (G)	(79)	6	900	8	960
82 (NLANT)	(74)	6	1080	7	840
83 (AK)	(92)	9	1800	9	1350
84 (G)	(79)	6	900	8	960
85 (AK)	(55)	5	1000	5	750

( ) = estimate
AK = Alaska
G = Gulf of Mexico
PAC = Pacific
MLANT = Mid Atlantic
NLANT = North Atlantic
SLANT = South Atlantic

Table A-4 presents the expected new residential employment per lease sale, combining data in Tables A-2 and A-3.

TABLE A-4 - Resident New OCS Employment

Lease Sale	Region	Exploratory Employment		Development Employment	
		Min.	Max.	Min.	Max.
46	AK	1740	2900	1305	2175
48	PAC	102	170	108	180
49	MLANT	216	360	144	240
51	G	158	262	144	240
55	AK	1080	1800	810	1350
58	G	180	300	144	240
A62	G	135	225	144	240
62	G	135	225	144	240
53	PAC	102	170	234	390
A66	G	135	225	144	240
56	SLANT	486	810	360	600
60	AK	480	800	360	600
66	G	135	225	144	240
68	PAC	230	383	198	330
59	MLANT	324	540	252	420
67	G	135	225	144	240
52	NLANT	324	540	252	420
57	AK	300	500	225	375
69	G	135	225	144	240
70	AK	540	900	405	675
71	AK	300	500	225	375
72	G	135	225	144	240
73	PAC	281	467	234	390
74	G	135	225	144	240
75	AK	540	900	405	675
76	MLANT	324	540	252	420
77	G	135	225	144	240
78	SLANT	486	810	396	660
80	PAC	230	383	198	330
81	G	135	225	144	240
82	NLANT	324	540	252	420
83	AK	540	900	405	675
84	G	135	255	144	240
85	AK	300	500	225	375

II. NON-OCS ACTIVITY

In addition to addressing OCS impacts, the Credit Assistance Program can also be used to address impacts from other forms of "coastal energy activity." Although there is no absolute assurance that the number of facilities planned will actually be constructed, the following range of potential facilities and resultant employment has been prepared.

TABLE A-5 - Potential Non-OCS Activities FY 1982 - 1986

(Employment estimates are averages for new facilities and expansions. They consider construction and operating employment as overlapping so that there is no "double count.")

Platform Yards		Employment
Atlantic	1	700
Gulf	1-2	700 - 1400
Pacific	1	700
Refinery Terminals/Facilities		**Employment**
Atlantic	1-2	500-1000
Pacific	0-1	0-500
Gulf	1-2	500-1000
Offshore Pipelines		**Employment**
Atlantic	3-6	720-1440
Gulf	1-3	240-720
Pacific	1-2	240-480
Alaska	1-4	240-960
Onshore Pipelines		**Employment**
Atlantic	1-2	240-480
Alaska	1-4	240-960
Pacific	1-2	240-480
Great Lakes (includes coal slurry)	1-4	240-960

LNG Facilities		Employment
Pacific	1	500
Gulf	1-2	500-1000
Alaska	1	500

Coal Facilities (Ports & EGP's) (excludes conversions)		Employment
Atlantic	10	1,500
Great Lakes	6-10	900-1,500
Gulf	6	900
Pacific	2	300

Deepwater Ports		Employment
Gulf	1	1200
Pacific	0-1	0-1200
Atlantic	1	1200

Oil and Gas Storage		Employment
Gulf	5-10	375-750
Pacific	2-5	150-375
Great Lakes	2-5	150-375
Atlantic	5-10	375-750
Alaska	5-10	375-750

Total Employment: 14,425 - 24,580

Table A-6 summarizes this employment by region.

Table A-6 - New Employment by Region

Region	Number of Employees
Atlantic	5,235 - 7,070
Alaska	1,355 - 3,170
Great Lakes	1,290 - 2,835
Gulf	4,415 - 6,970
Pacific	2,130 - 4,160
Total:	14,425 - 24,205

Assuming that each facility has an equal chance of starting construction in any year between FY 1982 and FY 1986, these employment totals can be divided by five to provide yearly employment levels. These are presented in Table A-7.

TABLE A-7 - Yearly New Energy Employment

Region	Number of Employees
Atlantic	1,047 - 1,414
Alaska	226 - 528
Great Lakes	258 - 567
Gulf	883 - 1,394
Pacific	426 - 832
Total:	2,840 4,735

Combining these data with the weighted regional standardized unit cost of providing public facilities and services, a dollar range of non-OCS needs can be developed. 1/

Average Minimum Employment

Region	Employment		Population Multiplier		Standardized Unit Cost		30% Reduction For Private Sector		Total $M
Atlantic	1,047	x	2.0	x	$ 7,041	x	.7	=	10.3
Alaska	226	x	2.0	x	11,016	x	.7	=	3.5
Great Lakes	258	x	1.7	x	7,377	x	.7	=	2.3
Gulf	883	x	1.7	x	6,640	x	.7	=	6.9
Pacific	426	x	1.7	x	7,811	x	.7	=	4.0
Total:									27.0

1/ This is derived by OCZM from the Commerce Construction Price Index, the Consumer Price Index, and the CEQ Cost of Sprawl.

Average Maximum Employment

Region	Employment		Population Multiplier		Standardized Unit Cost		30% Reduction For Private Sector		Total $M
Atlantic	1,414	x	2.0	x	$ 7,041	x	.7	=	13.9
Alaska	528	x	2.0	x	11,016	x	.7	=	8.1
Great Lakes	567	x	1.7	x	7,377	x	.7	=	5.0
Gulf	1,394	x	1.7	x	6,640	x	.7	=	11.0
Pacific	832	x	1.7	x	7,811	x	.7		7.7
Total:									45.7

III. Determination of Annual Requirements

The annual requirements for credit assistance have been developed by combining OCS and non-OCS requirements as stated below.

FY 1982 Credit Assistance Requirements

A. OCS Activity

	New Employment	
1. Exploratory Phase Lease Sales	Minimum	Maximum
52 - North Atlantic	324	540
57 - Alaska	300	500
59 - Mid-Atlantic	324	540
66 - Gulf of Mexico	135	225
67 - Gulf of Mexico	135	225
68 = Pacific	230	383
2. Development Phase Lease Sales		
48 - Pacific	108	180
49 - Mid-Atlantic	144	240
51 - Gulf of Mexico	144	240
58 - Gulf of Mexico	144	240

3. Calculations

Region	Employment Min.	Employment Max.		Population Multiplier		Standardized Unit Cost		30% Private Sector Reduction		Requirement ($Million) Min.	Requirement ($Million) Max.
Gulf											
Exp.	270	450	x	1.7	x	6,640	x	.7	=	2.1	3.6
Dev.	288	480	x	1.7	x	6,640	x	.7	=	2.3	3.8
Atlantic											
Exp.	324	540	x	2.0	x	7,041	x	.7	=	3.2	5.3
Dev.	144	240	x	2.0	x	7,041	x	.7	=	1.4	2.4
Alaska											
Exp.	300	500	x	2.0	x	11,016	x	.7	=	4.6	7.7
Dev.	0	0	x	2.0	x	11,016	x	.7	=	0	0
Pacific											
Exp.	230	383	x	1.7	x	7,811	x	.7	=	2.3	3.6
Dev.	108	180	x	1.7	x	7,811	x	.7	=	1.0	1.7

Range of OCS Need ($ Millions)

	Activity Level Low	Medium	High
Exp.	$12.2	$16.2	$20.2
Dev.	4.7	6.3	7.9
	$16.9	$22.5	$28.1

B. Non-OCS Activity

Low = $27.0 Medium = $36.4 High = $45.7

C. FY 1982 Requirements (Millions)

	Activity Level Low	Medium	High
OCS	$16.9	$22.5	$28.1
Non-OCS	27.0	36.4	45.7
	$46.9	$58.9	$73.8

Appendix B

CEIP Awards - FY 1977 to Present

The Coastal Energy Impact Program has awarded over $150 million in loans since FY 1977. As of March 31, 1980, neither the OCS State participation grants, loan repayment assistance, nor the loan guarantees provided for in the legislation have been awarded.

CEIP allocations direct formula grants to States effected by OCS oil and gas activities and credit assistance and planning grants to States affected by coastal energy activity as defined in CEIP legislation. Environmental grants, previously alloted to all States affected by coastal energy activity, now flow exclusively to States not eligible for formula grants in the year of allotment. Thus, formula grants have proven the primary source for OCS impact planning and environmental grants for those States eligible. Loans pay for infrastructure costs.

For purposes of this report, the States have been divided into five regions. Composition of the regions are as follows:

Atlantic	Gulf	Great Lakes	Pacific
Connecticut	Alabama	Illinois*	California
Delaware	Louisiana	Indiana*	Guam
Florida	Mississippi	Michigan	Hawaii
Georgia*	Texas	Minnesota*	No. Marianas
Maine		Ohio	Oregon
Maryland		Wisconsin	Washington

Atlantic	Alaska
Massachusetts	Alaska
New Hampshire	
New Jersey	
New York	
North Carolina	
Pennsylvania	
Puerto Rico	
Rhode Island	
Virgin Island	
Virginia*	

*Do not receive CEIP funds.

As might be expected from data indicating new energy development, most aid is awarded to the Gulf and Alaska. 54% of all monies awarded through the first half of FY 1980 went to the Gulf with an additional 37% going to Alaska.

Loans - Over $100 million in CEIP loans have been awarded through mid-FY 1980. The Gulf States and Alaska have been the largest recipients of loan funds (Table B-1). All loan funds, by statute, are to be used for providing municipal facilities and services. The largest loan to date, $50 million, is a general purpose loan to the Alaska Municipal Bond Bank. Hospital construction in the Gulf States has been allocated $24 million. Water and sewer projects in the Gulf and Alask received $22 million. Other expenditures include solid waste management projects in the Gulf, $6.6 million; Gulf and South Atlantic park and recreation projects, $2.7 million; and a Gulf airport

project, $1.8 million.

TABLE B-1 - CEIP Loans 1977-1980 (Dollars in Thousands)

Region	Actual Amount
Atlantic	$ 1,200.0
Gulf	56,116.5
Pacific	-0-
Alaska	50,182.5
Great Lakes	-0-
Total:	$107,499.0

Formula Grants - Formula grants are provided to States which have OCS oil and gas leasing or production off their shores, first land OCS oil and gas, or are in a CEIP region experiencing OCS oil and gas activity. Since OCS activity is most prevalent in the Gulf, this region has received 76% of all formula grant aid to date (Table B-2).

TABLE B-2 - CEIP Formula Grants 1977-1980 (Dollars in Thousands)

Region	Amount
Total:	$37,706.6
Atlantic	3,312.0
Gulf	28,777.2
Pacific	2,897.4
Alaska	2,720.0
Great Lakes	-0-

Most of the aid has financed municipal projects in the Gulf and Alaska, environmental projects in the Pacific, and planning and administrative projects elsewhere.

Nearly three quarters of formula aid has funded municipal facilities and services. Water and sewer projects have received 21.5% of the municipal monies, hospitals and hospital equipment, 18%; parks and recreation, 17%; streets and roads, 12%; port development projects, 10%; solid waste management, 8.2%; and police, fire, and rescue equipment, 7.7%. Other projects have included municipal electical systems, municipal administrative centers, and planning studies. A regional breakdown of projects for the municipal category is shown in Table B-3.

TABLE B-3 - Formula Grants for Municipal Facilities and Services 1977-1980 (Dollars in Thousands)

		Region			
Project Type	Total	Atl.	Gulf	Pacific	Alaska
1. Streets	$3,181	$70	$3,045.0	$0	$ 66
2. Fire, police, rescue	2,070.3	45	2,025.3	0	0
3. Hospitals & equip.	4,848.9	0	4,848.9	0	0
4. Hydro-electric power	1,286	0	0	0	1,286
5. Municipal admin. centers	148	0	0	0	148
6. Port development	2,813.8	726	2,087.8	0	0
7. Water & Sewer	5,805.3	100	4,850.3	0	855
8. Solid Waste mgmt.	2,203	0	2,110.0	0	93

Project Type	Total	Atl.	Gulf	Pacific	Alaska
9. Parks & recreation	$4,546.1	20	$4,516.1	$10	$ 0
10. Public facility planning	96.6	0	96.6	0	0

Environmental protection projects have comprised 17% of the formula grant awards. Wetlands protection and restoration, particularly in the Gulf area, has been the major focus of these awards (Table B-4).

Mid-Atlantic States have been the largest spenders of formula grant monies for planning and administrative purposes (Table B-5). The Atlantic States spent 28% of the $4.1 million in this category, 70% of all mid-Atlantic formula grant awards. Most of the expenditures in this category were used for planning studies of energy development projects.

Planning Grants - The third largest area of CEIP aid is the planning grant category. $6.7 million has currently been awarded (Table B-6). Nearly all regions have participated equally in this type of aid; every State eligible has received a planning grant. Half of the planning money has financed general studies of energy facility impacts (Table B-7. However, 17% of funds financed State CEIP program administration. Expenditures included municipal services planning, $.8 million, and environmental planning, $10 million.

Environmental Grants - Nearly $3 million in environmental grants have been awarded to date (Table B-8). The majority of these funds have supported environmental planning studies, particularly in Alaska and the Great Lakes (Table B-9). Shellfish and salmon studies in the Gulf and Alaska, respectively, have also received significant funding through these grants.

TABLE B-4- Formula Grants for Environmental Protection 1977-1980
(Dollars in Thousands)

Project Type	Total	Atlantic	GULF	Pacific	ALASKA
1. Oil Spill Prevention.	$470.1	$202.8	-0-	$267.3	-0-
2. Marine Sanctuary Develop-ment	$ 10	-0-	-0-	$ 10	-0-
3. Wetlands Protection & Restor-ation.	$4216.2	-0-	$4109.5	$106.7	-0-
4. Barrier Isl. Erosion	95.7	-0-	95.7	-0-	-0-
5. Air Emissions Studies/ Monitoring	342.2	-0-	-0-	342.2	-0-
6. Air & Water Pollution Studies/ Monitoring	68.3	-0-	-0-	68.3	-0-
7. Mosquito Control	179.6	-0-	179.6	-0-	-0-
8. General Env. Planning	1222.8	71	192.1	959.7	-0-

TABLE B-5- Formula Grants for General Planning and Administration 1977-1980

(Dollars in Thousands)

Project Type	Total	Atlantic	GULF	Pacific	ALASKA
1. Gen. Energy Impact Planning Studies	$2736.0	$1,616.3	$294.1	$750.6	$75
2. Onshore Facility Siting Studies	160	-0-	-0-	-0-	$160
3. Pipeline Feasibility Location Studies	140.7	-0-	38.9	101.8	-0-
4. Land Use Studies	119.3	14.3	62.5	42.5	-0-
5. State CEIP Program Admin.	913.7	446.6	224.8	238.3	4
6. Municipal Management Studies	33	-0-	-0-	-0-	33

TABLE B-6 - Planning Grants by Region 1977-1980
(Dollars in Thousands)

Region	Amount
Atlantic	$2,492.8
Gulf	1,422.5
Pacific	1,198.0
Alaska	672.8
Great Lakes	929.8
Total	$6,725.9

TABLE B-7 - Purpose of Planning Grants by Region 1977-1980
(Dollars in Thousands)

Region	Municipal Facilities Planning	Environmental Planning	General Planning	State Prog. Admin.	Mixed Purpose
Atlantic	$184.9	$ 209.9	$1,518.7	$ 454.5	$124.8
Gulf	270.8	112.5	183.8	255.4	-0-
Pacific	53.1	269.2	458.7	210.0	212.0
Alaska	267.6	-0-	278.5	136.7	-0-
G. Lakes	46.5	447.9	295.7	139.7	-0-
Total	$ 822.9	$1,039.5	$3,335.4	$1,191.3	$336.8

TABLE B-8- Environmental Grants by Region 1977-1980

(Dollars in Thousands)

Region	Amount
Atlantic	466.3
Gulf	1,104.0
Pacific	210.3
Alaska	878.2
G. Lakes	263.9
Total	$2,922.7

TABLE B-9- Purpose of Environmental Grants by Region 1977-1980

Purpose	Total	Atlantic	GULF	Pacific	ALASKA	G.LAKES
Oil Spill Prevention	$403.1	$117.5	0	$85.2	$170.4	$30
OCS Effects	229.5	229.5	0	0	0	0
Wetlands Protection	13.8	0	0	0	0	13.8
Shore Erosion Prevention	32.4	16.2	0	0	0	16.2
Fishery Conservation	905.2	29.0	750	0	126.2	0
Parks & Recreation	559.0	0	252.2	35	230	41.8
Drainage	25.1	0	25.1	0	0	0
Marine & Estuarine Sanctuaries	76.7	0	76.7	0	0	0
Effects of Coal Dev.	45	0	0		0	45
Gen. Env. Planning	632.9	74.1	0	90.1	351.6	117.1

THE QUANTIFICATION ISSUE

Reliable impact quantification, both in terms of dollar requirements and the quantity and types of impacts occurring, has been an issue for a number of years at both the programmatic and administrative levels. Answers to this question are of special importance in formulating annual and long term budget requirements for CEIP. Through the study's literature search, interviews and site visits the team sought answers to this question. For the most part the result of this review has uncovered only the complexity of the task and the limit of current knowledge.

Any projection of future programmatic budget requirements potentially requires the quantification of three kinds of information: (1) The amount of past and current energy activity; (2) the amount of future energy activity; and (3) the nature, magnitude and timing of impacts which result from these activities. This task is difficult for two reasons. First, the amount of research which has been undertaken concerning this subject is limited. Neither the literature nor managers in coastal States could provide significant data relating to impact quantification. Second, unlike the archetypal inland "boomtown," such as Gillette, Wyoming, where a single development affects an isolated town, the situation in coastal areas is often complex. Such areas, especially areas of ongoing energy activity, often exhibit two characteristics which make impact quantification difficult. First, it is often difficult to disaggregate the impacts from old and new activities, a process once required by the CZMA. Second, a variety of energy activities such as refining, coal and/or oil transportation and storage, oil drilling, and electric generation and nonenergy activities,

such as grain transportation or manufacturing, may all occur in the same locality thereby complicating the task of impact attribution.

Future Energy Activity

By definition, future energy activity levels are speculative. Knowledge of the future activity is available only in the form of probabilities of occurrence. For the projection of OCS activity there is only the Department of Interior's (DOI) schedule of OCS lease sales. The only certainty to date, for all regions of the country except the Gulf of Mexico, is that lease sales are unlikely to occur when scheduled, usually due to litigation. This has been the case in the Atlantic, Alaska, and Pacific regions.

In addition, the likelihood of discovering commercially exploitable petroleum resources can be based only on comparisons with past activity in lease sale areas, a procedure possible only for some areas in the Gulf of Mexico, Southern California and parts of Alaska. The U.S. Geological Survey publishes estimates of undiscovered reserves by basin, but these estimates indicate only the probable size of the field (from .05 to .95 probability) and do not guarantee that petroleum resources actually exist. Neither indicator is 100 percent reliable as the dry holes of the Destin Dome (eastern Gulf of Mexico), the Gulf of Alaska and the limited success to date of the Baltimore Canyon activity indicate.

Finally, the timing and level of non-OCS activity is always subject to speculation. Certain attributes about proposed facilities such as proposed capacity and likely site can be known. From these, potential impacts can be forecast. But a proposal is no guarantee of actual construction.

Facilities can be constructed only after the accumulation of required capital and the receipt of necessary permits. As the proposed VIRCO refinery in the Virgin Islands and the proposed refinery in Hampton, Virginia, illustrate, this process can take years. No actual construction date can be guaranteed. Even the completed construction of a facility does not guarantee that it will become operational. Litigation over safety issues has delayed for years the opening of the Staten Island LNG facility, a facility which may never be used for its initially intended purpose.

Knowledge of Current and Past Activity

The second type of knowledge which must be quantified to determine budget requirements is the level of past and current energy activity. This component can be quantified since it is possible theoretically to determine the number of operating wells, refineries, tankers, coal yards, and the like. However, accurate quantification would probably require considerable effort. Additionally, there is a problem with the currency of data. For example, publication of the annual Army Corps of Engineers' report of goods shipped into U.S. harbors lags by two years. However, with sufficient effort reasonable estimates could be made of most activities.

Determining the Nature and Source of Impacts

Finally, there is the need to determine the connection between energy activity and the types of impacts produced. This type of knowledge can be determined only on a case-by-case basis. The impacts from similar facilities in dissimilar locations can vary greatly. For example, 200,000 barrel per day capacity refineries located in northern New Jersey and in North Carolina are likely to produce different kinds of impacts. Both

could have major environmental impacts, but the nature of their consequences and of the work needed to ease these consequences would vary as a result of different shoreline configurations, aquifer composition, and wind patterns, among other variables. Likewise, public facilities in both locations may or may not be affected. A refinery located in a small North Carolina town might result in the need for the upgrading or expansion of all municipal services and facilities. On the other hand, a northern New Jersey facility might not generate the same direct population impacts, but could severely tax the region's water supply. As was noted before, timing is also critical; there is no way of knowing when or at what point a facility would be constructed and allowed to operate.

The level of ongoing impacts from past energy activities is also difficult to quantify. Certain types of impacts would be easier to quantify than others. A wetland degraded by energy related channelization is easily observed, but the change in the rate of ongoing erosion from tanker traffic is harder to define. Except in the case of isolated communities, the effects of a particular facility siting in an area where energy development is widespread, such as southern Louisiana, is nearly impossible to determine. The preceding examples do not mean that impact quantification is totally impossible, it only illustrates that impact quantification is a complex problem that is not entirely soluble.

The CEIP Projection Methods

The CEIP relies upon the DOI planning schedule for OCS lease sale forecasts and the CEIP's annual inventory of coastal energy activity for non-OCS coastal energy activity facility projection. Since the lease

sale schedule is the Federal Government's plan for OCS lease sales, it is the only authoritative source. The CEIP facility inventory is updated annually through a review of the literature, contacts with government and business sources, and State program managers. It also can be assumed to be accurate.

In brief, the process used by the CEIP to project loan requirements is as follows. The standardized unit cost of providing public facilities and public services, described in the CZMA, is multiplied by the number of new coastal energy activity workers resulting from future lease sales or other coastal energy activity (see Appendix C for a detailed projection). For OCS lease sales, worker estimates per drilling rig are standardized by region on the basis of energy company data. Probabilities of find are also taken into consideration. For non-OCS activity, employment is by actual facility when possible, or by generic facility type with annual estimates of the number of facilities which will be constructed based on a CEIP review of the inventory and the projections of industry and government.

Because all of these variables require estimates of future activity, the actual value of each is always subject to question as would be any other proposed value. Thus, given that all estimates are only estimates and not reality, they can be questioned as such, but the underlying method used by the CEIP is one valid approach.

Another method for determining future budget requirements other than the estimation of standardized unit costs and employment would be to determine the number, location, and value of future public works projects that must be constructed as a result of coastal energy activity. While these could

be derived in the near term based on current loan applications under consideration by the Program and a polling of the States regarding their next year's requirements, there would be some question of bias in this procedure. Further, projections beyond the near term suffer from the same estimation weaknesses of the existing methodology. These problems would be compounded by the difficulty of enumerating, if possible, for each type of facility, the average type of public works activity which might be needed by the average coastal community.

CEIP formula grant estimates currently rely on projections of OCS production. These are less likely to vary as much as estimates of annual lease sale acreage. The difficulty in estimating formula grant requirements lies not only in the quantifying the types and magnitude of impacts which occur but also in placing a value on them. In determining its budget requests the CEIP has attempted to estimate the value of particular classes of environmental losses. However, although the data sources used are reliable, though as with any resource valuation subject to debate, and the methodology applied logically consistent, the range of their annual estimated losses for wetlands alone--from $14,200,000 to $1,309,400,000--make these estimates of limited utility in determining budget requirements since they do not address the State and local action needed to avoid or reduce such losses. In addition, they illustrate the varied value the experts place on natural resources. The CEIP estimates also do not include any consideration of public facility requirements, a serious lack since this is a major use of formula grants.

An alternative calculation method that has been suggested would quantify, as in the case of the alternative loan method, the cost of mitigating a specific kind of impact rather than attempting to estimate the

value of the resource lost. But it also suffers from the same identification, enumeration, and projection flaws when used for formula grants as was the case with loans.

Conclusions

Given sufficient time and resources it should be possible in a broad sense to inventory ongoing energy activity. However, regarding the construction of new facilities or the level of future OCS activity, forecasts can be made, but these can always be challenged on the basis of underlying assumptions. The other difficult part of any quantification effort, even of impacts from existing facilities, is the definition of the impacts themselves and of the requirements such impacts pose for State and local corrective action. Except in very simple situations such as small, isolated boomtowns, the determination of which impacts, or how much of a particular impact, derives from an energy activity, is difficult. One approach to this problem, at least for the purpose of budget formulation, is to assume that each type of facility or activity will result in a certain dollar value of impact correction costs, so much for environmental or recreational needs (beach displacement, wetland damage mitigation, replacement of lost wildlife, etc.), so much for public works, etc. However, as is the case with any projection of future impact generating activity, the base assumptions could always be subject to reasonable challenge. Because of these problems, the team believes that although some parts of this puzzle could be solved, the likelihood is low that estimates of annual resource requirements acceptable to all interested parties could be derived.

APPENDIX D

CEIP Evaluation Workplan

The advent of the 1973 energy crisis triggered an interest in expanding outer continental shelf oil and gas exploration by the Administration and energy-related industries. With the Administration announcement that the leasing program for OCS energy exploration would be tremendously expanded, State officials and environmental interest groups expressed concern about the possibility of adverse developmental impacts such as had occurred in Scotland when North Sea oil was discovered, along with damage to valuable coastal resources. In response to these concerns, Congress passed an energy impact aid program as the 1976 Amendments to the Coastal Zone Management Act. In 1978, the program was strengthened and somewhat modified with the passage of the Outer Continental Shelf Lands Act.

CEIP is thus a relatively new program and its effects are not yet completely clear. There is a need to examine and evaluate the results of this program due to its size ($85 million in FY 81); its age (4 years); and its role vis-a-vis current projections of future coastal energy development.

The program is composed of five parts: Formula grants; loans; planning grants; OCS State participation grants; and environmental grants. The FY 1981 current budget for the program is $27 million in formula grants, $50 million in loan funds, $3 million in planning grants, $3 million in OCS State participation grants, and $1.5 million in environmental grants. The budget has remained nearly at this level for the past three years.

OMB's FY 1981 Allowance Letter requested that the Department make a comprehensive review of the "future need for and better targeting of" Coastal Energy Impact Program funds prior to the FY 1982 budget review process. The Office of Coastal Zone Management has agreed to conduct such an evaluation jointly with OBPE/PE.

Working-level OMB concerns, as articulated to us, center on the problem that the "boom bust" phenomenon foreseen by the 1976 amendments has not taken place. They are concerned that monies allocated under this program are addressing economic impacts of energy development that occurred in the 1950's, or may be used as supplemental funds for other objectives of CZM programs.

The objective of this evaluation is to provide background for FY 1981 and future budget decisions. Although it will focus on loans, it will assess the program as a whole by extending impact analysis to the formula and other grants. Also, it is expected that the review will provide direction for a possible future in-depth assessment of the program.

Issues which the study will examine include the impacts of coastal energy development anticipated by the legislation and the extent to which these and other impacts have materialized; the effect of the program as it has been implemented upon past and present coastal energy-related problems; implementation problems; and a review of alternative program directions. A preliminary review of the literature indicates that the developmental and environmental effects of energy exploration and production have not been as great as anticipated.

The evaluation will be carried out in roughly two stages, program review and impact analysis.

Stage 1 will yield a report which generally reviews the intent of the program, rpogram accomplishments to date, the OCZM projection of future program direction, and its relationship to energy development scenarios. It will be conducted entirely in-house.

Stage 2 will include analysis which will involve a detailed review of the program's responsiveness to impacts and recommendations concerning alternatives for future program direction. It will be conducted in-house and with consultant assistance. An outline and schedule are attached which describe the workplan in greater detail.

The evaluation will begin immediately. A Stage 1 preliminary report is expected to be completed by April 1 and will be sent to OMB April 15. The draft report combining both Stage 1 and Stage 2 findings will be available July 1, with the final report September 1.

OCZM and OBPE/PE will conduct the study jointly at a total proposed cost of $40,000. These costs are detailed in Attachment 3. Roberta Miller of OBPE/PE will act as project leader with Martin Chorich, an IPA assigned to OCAM, as principal analyst.

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1982 Secretarial Submission
National Oceanic and Atmospheric Administration
Secretarial Decision Paper
Coastal Energy Impact Fund (CEIF)

I. Statement of Issue:

Available funding to continue the CEIF programs is expected to be totally expended by the end of FY 1981. The Department must address the following issues:

A. Should the CEIF programs be continued in 1982 and outyears?

B. If the CEIF is to be continued, what program changes should be proposed to correct program inadequacies of concern to the Administration and to the Congress?1/

C. What should be the recommended appropriation levels for the CEIF and should the Department's National Needs budget include the CEIF budget recommendations?

II. Description:

The Coastal Energy Impact Fund (CEIF) includes four programs: Planning Grants; Outer Continental Shelf (OCS) State Participation Grants; Loans, Guarantees and Repayment Assistance; and, Envrionmental Grants. The Coastal Energy Impact Program (CEIP) includes the above four programs plus Energy Impact Formula Grants. Formula Grants are funded under a separate appropriation and, as such, are not a part of the recapitalization issue.

A. Energy Impact Formula Grants: 100% grants. Allotted by legislated formula. Finance planning studies, new public facilities and services, and environmental/recreational impact mitigation.

B. Planning Grants: 80% grants. Coastal energy facility development studies and planning. Administration of state/territorial CEIF programs.

C. OCS State Participation Grants: 70% grants. Supports state participation in DOI leasing process.

D. Loans: Provide public facilities and services required by expanded energy activity.

E. Environmental Grants: Distributed to non-OCS states. Reduce or ameliorate unavoidable loss of environmental/recreational resources.

1/ Note: Programmatic revisions will be proposed for the Energy Impact Formula Grants in 1982 which will require legislative changes. Funding for this program in 1982 is proposed within the recommended level and thus is not part of the recapitalization issue.

A recapitalization or restructuring of the CEIP programs must address the following concerns of OMB and the Congress:

A. A flexible loan interest rate ranging from a low of 5% to the high Treasury rate based upon "special circumstances" is currently used. This rate has resulted in funding of some projects which are not closely associated with new (as opposed to pre-1976) coastal energy development at artificially low interest rates.

B. Possible failure to target CEIP Loans to the neediest communities, i.e., those communities incapable of entering the private bond market.

C. An inability to allot CEIP grant and loan program monies on the basis of new and offshore energy development activities.

In addition, some members of the Congress have expressed concern with CEIP support of selective projects relating to public facilities and services in that such projects appear to have only a tenuous relationship to coastal energy impacts.

IV. Recommendations:

The Assistant Secretary for Administration and the Administrator of NOAA recommend:

A. Continuation of the CEIP grant and loan programs.

1. The loan program can respond to those small and medium-sized communities which experience infrastructure financing shortfalls from initial stages of energy development. Later development activity provides a revenue surplus to repay loaned funds. These communities are likely to be incapable of entering the private bond market because of community size, the speculative nature of energy development, or legal and political barriers.

2. The CEIP has increased the ability of states and localities to deal with energy development issues. In funding planning projects which focus on general and specific energy development, CEIP has increased the ability of states and localities to deal with energy development issues. In funding planning projects which focus on general and specific energy development, CEIP has fostered "institution building" to deal with such issues in the future. No other Federal programs provide these capabilities.

B. Restructuring of the CEIP through the following administrative, regulatory, and legislative changes:

1. Formula grants: Allot grant funds totally on the basis of OCS lease sales in order to target funds to areas experiencing new energy impacts. Utilize the program to assist allstate energy development planning and response capabilities, and for state responses to environmental/ recreational impacts. Public facilities and services projects are to be supported only by loans. (Legislative).

2. Loans: Establish standard interest rate below the Treasury rate but consistent with standard commercial rates to encourage loan applications from only the neediest communities and for projects directly attributable to coastal and offshore energy development. However, there may be a few cases where subsidized, below-market rates would be appropriate such as, for example, where a project would have national reprecussions.

3. Planning/environmental grants: These programs are open only to those states not experiencing OCS development (legislative). Assures continued energy development response capabilities in all coastal states.

C. Recapitalization at the following levels:

1.	Formula grants:	$27.2M[1/]
2.	CEIF grants:	6.0M
3.	CEIF loans:	50.0M
	Total:	$83.2M

1/ Formula grant funds are proposed within the 1982 recommended level.

D. Support the $56M CEIF recapitalization within the National Needs budget:

1. Congress has given the Department, through NOAA, and the states the lead role in comprehensive management of the Nation's coastal areas through the Coastal Zone Management Act.

2. Part of this responsibility includes the Coastal Energy Impact Program, which seeks to ameliorate the adverse environmental and socio-economic effects of energy development on coastal communities.

3. The President's energy priorities - OCS development, coal export, and coal conversion of powerplants - are all closely tied to the issues which CEIP has an established capacity to address.

4. A coherent Departmental policy on economic productivity, energy development, and resource management in coastal areas derives from strong state coastal zone management programs with the support of CEIP, and tied to EDA and MARAD through existing interdepartmental coordination mechanisms.

5. There is a danger that failure to support CEIP as part of the CZM effort will:

   (a) weaken the capacity of states to deal with energy issues and impacts; and
   (b) encourage a return to more confrontation between environmental and development interests with respect to coastal energy activities.

6. The CEIF grant and loan programs are currently operational and have been funded in the past. However, new 1982 funding for the CEIF can not be accomodated within the Department's recommended level.

Not for public release

1982 Secretarial Submission
National Oceanic and Atmospheric Administration
Secretarial Decision Paper
Coastal Energy Impact Fund (CEIF)

I. Statement of Issue:

Available funding to continue the CEIF programs is expected to be totally expended by the end of FY 1981. The Department must address the following issues:

A. Should the CEIF programs be continued in 1982 and outyears?

B. If the CEIF is to be continued, what program changes should be proposed to correct program inadequacies of concern to the Administration and to the Congress?1/

C. What should be the recommended appropriation levels for the CEIF and should the Department's National Needs budget include the CEIF budget recommendations?

II. Description:

The Coastal Energy Impact Fund (CEIF) includes four programs: Planning Grants; Outer Continental Shelf (OCS) State Participation Grants; Loans, Guarantees and Repayment Assistance; and, Envrionmental Grants. The Coastal Energy Impact Program (CEIP) includes the above four programs plus Energy Impact Formula Grants. Formula Grants are funded under a separate appropriation and, as such, are not a part of the recapitalization issue.

A. Energy Impact Formula Grants: 100% grants. Allotted by legislated formula. Finance planning studies, new public facilities and services, and environmental/recreational impact mitigation.

B. Planning Grants: 80% grants. Coastal energy facility development studies and planning. Administration of state/territorial CEIF programs.

C. OCS State Participation Grants: 70% grants. Supports state participation in DOI leasing process.

D. Loans: Provide public facilities and services required by expanded energy activity.

E. Environmental Grants: Distributed to non-OCS states. Reduce or ameliorate unavoidable loss of environmental/recreational resources.

1/ Note: Programmatic revisions will be proposed for the Energy Impact Formula Grants in 1982 which will require legislative changes. Funding for this program in 1982 is proposed within the recommended level and thus is not part of the recapitalization issue.

III. Program Concerns:

A recapitalization or restructuring of the CEIP programs must address the following concerns of OMB ~~and the Congress~~:

A. A flexible loan interest rate ranging from a low of 5% to the high Treasury rate based upon "special circumstances" is currently used. This rate has resulted in funding of some projects which are not closely associated with new (as opposed to pre-1976) coastal energy development at artificially low interest rates.

B. Possible failure to target CEIP Loans to the neediest communities i.e., those communities incapable of entering the private bond market.

C. An inability to allot CEIP grant and loan program monies on the basis of new and offshore energy development activities.

In addition, some members of the Congress have expressed concern with CEIP support of selective projects relating to public facilities and services in that such projects appear to have only a tenuous relationship to coastal energy impacts.

IV. Recommendations:

The Assistant Secretary for Administration and the Administrator of NOAA recommend:

A. Continuation of the CEIP grant and loan programs.

1. The loan program can respond to those small and medium-sized communities which experience infrastructure financing shortfalls from initial stages of energy development. Later development activity provides a revenue surplus to repay loaned funds. These communities are likely to be incapable of entering the private bond market because of community size, the speculative nature of energy development, or legal and political barriers.

2. The CEIP has increased the ability of states and localities to deal with energy development issues. In funding planning projects which focus on general and specific energy development, CEIP has increased the ability of states and localities to deal with energy development issues. In funding planning projects which focus on general and specific energy development, CEIP has fostered "institution building" to deal with such issues in the future. No other Federal programs provide these capabilities.

B. Restructuring of the CEIP through the following administrative, regulatory. and legislative changes:

1. Formula grants: Allot grant funds totally on the basis of OCS lease sales in order to target funds to areas experiencing new energy impacts. Utilize the program to assist allstate energy development planning and response capabilities, and for state responses to environmental/ recreational impacts. Public facilities and services projects are to be supported only by loans. (Legislative).

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1/Formula grant funds are proposed within the 1982 recommended level.

D. Support the $56M CEIF recapitalization within the National Needs budget:

1. Congress has given the Department, through NOAA, and the states the lead role in comprehensive management of the Nation's coastal areas through the Coastal Zone Management Act.

2. Part of this responsibility includes the Coastal Energy Impact Program, which seeks to ameliorate the adverse environmental and socio-economic effects of energy development on coastal communities.

3. The President's energy priorities - OCS development, coal export, and coal conversion of powerplants - are all closely tied to the issues which CEIP has an established capacity to address.

4. A coherent Departmental policy on economic productivity, energy development, and resource management in coastal areas derives from strong state coastal zone management programs with the support of CEIP, and tied to EDA and MARAD through existing interdepartmental coordination mechanisms.

5. There is a danger that failure to support CEIP as part of the CZM effort will:

   (a) weaken the capacity of states to deal with energy issues and impacts; and
   (b) encourage a return to more confrontation between environmental and development interests with respect to coastal energy activities.

6. The CEIF grant and loan programs are currently operational and have been funded in the past. However, new 1982 funding for the CEIF can not be accomodated within the Department's recommended level.

1982 Secretarial Submission
National Oceanic and Atmospheric Administration
Coastal Energy Impact Fund Evaluation

A. Introduction

In the early 1970's, concern was expressed that accelerated energy exploration and development was having and would continue to have profoundly negative effects on local economies, social patterns and the environment, particularly in the coastal areas. This concern was translated in 1976 into the Coastal Energy Impact Program (CEIP). Since its establishment, the Coastal Energy Impact Program has awarded $47 million in grants and $107 million in loans to counteract adverse effects of energy development.

The Office of Management and Budget (OMB) requested the Department of Commerce (DOC) to complete a comprehensive review of the future need for and possible better targeting of CEIP funds. In addition, after four years of experience, there is concern in both the Executive and Legislative Branches that the program be evaluated, particularly in light of the fact that Coastal Energy Impact Fund (CEIF) appropriations which support important parts of the program will have been fully utilized by FY 1982.

CEIP has received criticism from other Executive Branch and Congressional sources, as well as from OMB. The critics have questioned whether the negative effects that the program was intended to address have materialized and whether the program has met the purposes of its authorizing legislation. If the program has failed in these areas, the critics claim that the failures would justify elimination or a significant decrease in program funding.

The doubts raised by the criticism as well as the salience of the FY

1982 CEIF budget decisions have generated the need for an assessment of CEIP and for an examination of the changes, if any, that are needed to make the program more responsive to current national goals. This evaluation was conducted from April to August 1980 by Roberta A. Miller, of the Office of Budget and Program Evaluation in the Office of the Assistant Secretary for Administration; and by Joseph Uravitch and Martin Chorich of the Office of Coastal Zone Management (OCZM) of the National Oceanic and Atmospheric Administration. Their assessment involved a literature review of studies of energy development and the potential problems that the program was intended to address, as well as interviews with Federal, State and local officials involved in aspects of the CEIP program. Additionally, the team members participated in field trips to the Gulf of México and Alaska as part of their research.

The team's evaluation indicated that, in certain areas, the program has been successful; that some of the problems that the program was intended to address do, in fact, exist and are likely to become aggravated; and that some changes in the program are needed to improve its effectiveness. In general, the benefits have been considerable and a continuation of the program is in the public interest.

This report of the team's evaluation is presented in three sections; Summary, Program Background, and Program Assessment. The conclusions and policy recommendations which derive from these conclusions are presented in the Executive Summary. These conclusions and recommendations represent a consensus of the team. The Background section presents general material about the program's legislative and administrative history. The Assessment section presents substantial evidence upon which the conclusions and recommendations presented in the Executive Summary are based.

B. Conclusions

The evaluation team assessed CEIP against the purposes set out in its legislative history. The team also attempted to determine the extent to which energy development has impacted or is likely to impact coastal areas. From this assessment of the program, the team has reached a number of conclusions which relate to the way CEIP has fulfilled its objectives. Additionally, in examining the program the team has made determinations about several administrative practices which appear to affect program performance. The team's findings are listed below:

- CEIP has fulfilled its legislative objective of increasing the ability of states and localities to plan for energy development. In funding planning projects which focus on general and specific energy development, CEIP has fostered "institution building" to deal with such issues. Most of the state and local officials interviewed for the study indicated that this activity would not have occurred in absence of CEIP funding.

- Energy development, particularly oil and gas extraction, causes or has the potential to cause serious environmental impacts. CEIP, by providing funds for mitigation of those impacts, has been a major factor in lessening the negative effects of energy development, thus fulfilling another important legislative objective. State and local personnel interviewed noted that, as in the case of planning, CEIP funds have promoted activities which other governmental levels generally could not finance.

- Disagreement continues on the existence of the "boomtown" phenomenon that was a major legislative concern in enacting CEIP. While some analysts do not subscribe to the view that the "boomtown" phenomenon exists, others note that continued rapid growth outstripping public facilities is now occurring in some Gulf of Mexico areas. Some future energy development scenarios indicate that the phenomenon may occur in the future, possibly in Alaska.

- Studies of energy development indicate that the most appropriate means of financing shortfalls in community infrastructure caused by energy development is through loans which are paid back when the development activity provides a revenue surplus. Research conducted by the team indicates, however, that in a number of cases the private market does not satisfy all such municipal financing needs. The use of formula grants for provision of public facilities and services is not consistent with the study findings.

- Consistent with legislative objectives, CEIP has provided a valuable incentive for State participation in the national Coastal Zone Management (CZM) program, particularly by the Gulf of Mexico States. Additionally, CEIP has served to augment the CZM Program in assisting States in dealing with coastal energy issues.

- In attempting to meet its legislative objective of providing "equity" to States hosting development on Federal Outer Continental Shelf (OCS) lands through formula grants, CEIP has met with limited success. CEIP has in fact provided federal funds to states and communities which are

prohibited from taxing OCS-sited production facilities. It does not, however, appear to have affected basic attitudes toward energy development. State planning capabilities have been enhanced by CEIP-funded projects. State approaches to energy development have changed because they have been able to participate in the process, but it is difficult to determine if CEIP is responsible. In any event, CEIP generally has not muted any opposition to or encouraged supporters of energy development.

- The legislative formula for allotting the Section 308(b) grants (formula grants) provides much of the aid to frontier areas after most of the need for planning and impact mitigation studies and projects has passed. Although these activities are the key to CEIP's success in dealing with energy development, the Section 308(b) formula neutralizes their effectiveness.

- Section 308(d) (4) environmental grants are awarded for coastal energy activity other than OCS oil and gas development. The formula currently in use for allocation of these grants is based on the amount of new employment to be generated by the facility in question. Since labor-intensive facilities are not necessarily those which create the most negative environmental effects (e.g. LNG facilities), the formula is inequitable.

- CEIP legislative history makes it clear that CEIP loans are intended for those communities denied reasonably priced commercial credit. This implies that such loans must themselves also be reasonably

priced. The concept of "reasonableness" relates to the commercial market, and CEIP loans should for the most part bear market-determined interest rates. The current, special circumstances approach to determining CEIP rates was developed as a way around unrealistically high Treasury rates. It specifically includes non-market factors and is, for this reason, generally inappropriate.

- Any attempt to disaggregate impacts between Federal OCS oil and gas development and State waters and coastal zone oil and gas development is fraught with difficulties. These facilities use the same support bases, pipelines and other facilities. Currently OCZM cannot distinguish between impacts from either type of development, since they generally occur together. Additionally, it is nearly impossible to distinguish between new impacts and old impacts in regions where there is continuing production.

C. Recommendations

Based on the above-listed conclusions the evaluation team makes the following suggestions and recommendations, which are intended as guidance in planning for CEIP's future.

- Formula grants should continue to be used for planning and environmental purposes, and such use should be actively encouraged.

- Planning grants, currently allotted for facilities other than OCS oil and gas, have been extremely successful and should be continued.

- Environmental grants for coastal energy activity other than OCS oil and gas have been successful, and should be continued.

- Future energy development scenarios indicate that the "boomtown" phenomenon may indeed occur in the future, particularly in Alaska. Thus, provision for such occurrence should remain in CEIP.

- Loans are the most appropriate means of financing public facility shortfalls (which may be severe in the short-term). The CEIP loan program should be recapitalized.

- Using formula grants for public facility and service needs is inappropriate. The use of formula grants for public facilities and services should be deleted by legislation.

- Since a major objective of the CEIP legislation is planning for and mitigation of negative effects from new energy development, the Section 308(b) formula should be changed legislatively to allot more aid to areas facing new energy development. This can be accomplished by eliminating or discounting continuing development and production as a factor in the distribution of aid.

- The allotment formula for Section 308(d) (4) environmental grants should be changed. Given the current state of energy impact quantification methods, the allotment formula should be based on factors other than new employment to be generated by the energy facility in question.