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PUBLIC WORKS FOR WATER AND POWER DEVELOPMENT AND ATOMIC ENERGY COMMISSION APPROPRIATION BILL, 1975

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HEARINGS

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SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS HOUSE OF REPRESENTATIVES

NINETY-THIRD CONGRESS
SECOND SESSION

SUBCOMMITTEE ON PUBLIC WORKS

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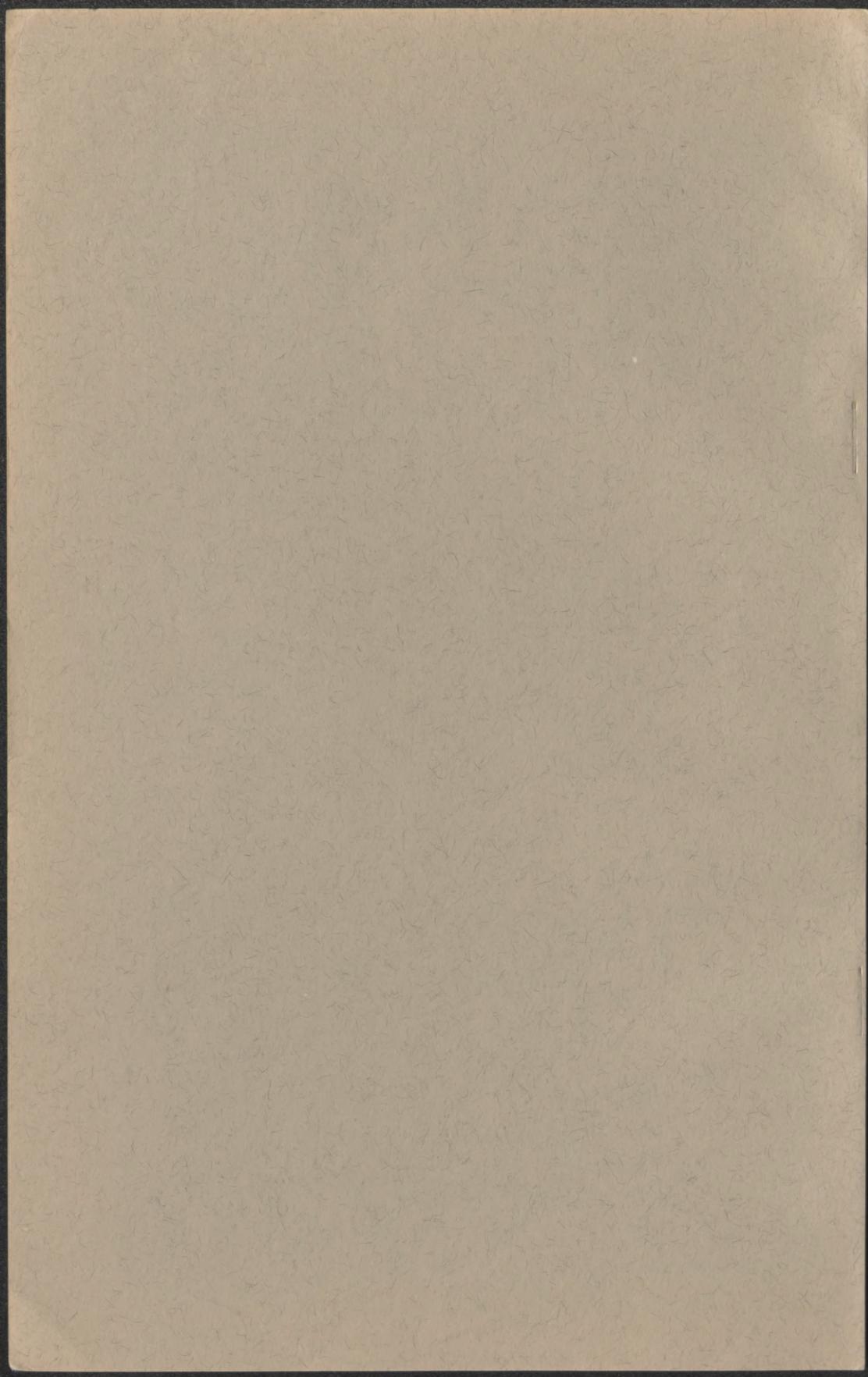
PART 5

APPALACHIAN REGIONAL COMMISSION FEDERAL POWER COMMISSION INTERSTATE COMMISSION ON THE POTOMAC RIVER

Printed for the use of the Committee on Appropriations



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Printed for the use of the Committee on Appropriations



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PUBLIC WORKS FOR WATER AND POWER DEVELOPMENT AND ATOMIC ENERGY COMMISSION APPROPRIATION BILL, 1975

MONDAY, APRIL 8, 1974.

FEDERAL POWER COMMISSION

WITNESSES

JOHN N. NASSIKAS, CHAIRMAN
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RUSH MOODY, JR., COMMISSIONER
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MARSH H. MOY, COMPTROLLER
JOHN R. MATSON, OFFICE OF THE COMPTROLLER (BUDGET OFFICER)
JOHN F. KING, OFFICE OF THE COMPTROLLER (PROGRAM OFFICER)
RICHARD E. KEAR, OFFICE OF THE COMPTROLLER (ADP)
CLAUDIUS L. FIKE, DIRECTOR, OFFICE OF PERSONNEL PROGRAMS

Mr. EVINS. The committee will come to order. We have with us our friends of the Federal Power Commission, a very distinguished group.

Mr. Chairman, I have looked over your statement. You can present it in full to the committee, or you can summarize it in your usual able way, if you wish, and we will be pleased to hear you. We will place in the record the justification material and your full statement.

STATEMENT OF JOHN N. NASSIKAS

Mr. Chairman, for fiscal year 1975 the Federal Power Commission is presenting a budget estimate totalling \$32,393,000 and 1,337 positions. This includes an increase of \$3,697,000 and 40 positions over the agency's fiscal year 1974 budget.

At the outset it is to be noted that \$2,230,000 of the \$3,697,000 increase is for office space and related requirements. For the first time, in fiscal year 1975, this item is to be included in each agency's appropriation instead of in the appropriation for the General Services Administration, pursuant to the "Public Buildings Amendments of 1972," Public Law 92-313. This major item aside, the rest of the dollar increase, amounting to \$1,467,000, is for increased pay cost and the cost of additional personnel, in the amount of \$922,000, and increases for travel, contractual services, printing, supplies; and equipment, estimated to be \$545,000.

The following summary table shows the distribution of the \$32,393,000 estimate among Federal Power Commission programs and indicates the application of the increases among the programs.

FEDERAL POWER COMMISSION
SUMMARY OF ACTIVITIES

1975 BUDGET TO THE CONGRESS

	1973 Actual		1974 Estimate		1975 Estimate		Change 1974-1975	
	Posi- tions	Amount	Posi- tions	Amount	Posi- tions	Amount	Posi- tions	Amount
I. Hydroelectric Power Regulation	200	\$ 3,073,137	209	\$ 4,789,000	215	\$ 5,367,000	+ 6	+\$ 578,000
II. Electric Power Industry Systems Evaluation	132	2,375,897	134	3,093,000	138	3,438,000	+ 4	+ 345,000
III. Electric Power Utilities Regulation	147	3,005,679	154	3,533,000	160	3,991,000	+ 6	+ 458,000
IV. Natural Gas Pipeline Regulation	366	6,575,190	390	8,747,000	402	9,839,000	+12	+ 1,092,000
V. Natural Gas Producers Regulation	192	3,527,214	203	4,164,000	205	4,732,000	+ 2	+ 568,000
VI. Natural Gas Industry Systems Evaluation	31	903,167	13	384,000	13	420,000	-	+ 36,000
VII. Services to Other Agencies and Public	93	1,683,311	88	1,856,000	88	2,031,000	-	+ 175,000
VIII. Conservation Research					3	100,000	+ 3	+ 100,000
IX. Administration	99	1,616,817	106	2,130,000	113	2,475,000	+ 7	+ 345,000
Total Costs Funded	1260	\$22,760,412	1297	\$28,696,000	1337	\$32,393,000	+40	+\$3,697,000
Changes in Selected Resources	-	+ 359,483	-	-	-	-	-	-
Total Obligations	1260	\$23,119,895	1297	\$28,696,000	1337	\$32,393,000	+40	+\$3,697,000
Reimbursables	3	+ 109,606	-	-	-	-	-	-
Unobligated Balance	-	+ 847,499	-	-	-	-	-	-
Appropriation or Request	1263	\$24,077,000	1297	\$28,696,000	1337	\$32,393,000	+40	+\$3,697,000
Distribution of Costs by Major Object Classes								
Personnel Compensation		\$18,828,607		\$22,019,000		\$22,900,000		+\$ 851,000
Travel		568,467		710,000		760,000		+ 50,000
Other Costs		3,363,338		5,967,000		8,733,000		+ 2,766,000
Total Costs Funded		\$22,760,412		\$28,696,000		\$32,393,000		+\$3,697,000

When the Federal Power Commission was established in 1920, its functions were to collect information concerning the use of water resources for electric power generation, to license hydroelectric facilities, and to establish a uniform system of accounts for all licensees. Over the 54 years since that time, there has been a considerable accretion of functions and responsibilities relating to such matters as wholesale electric rates, watercourse and river basin development, corporate regulation, environmental quality, natural gas pipeline certification and rate regulation, natural gas producer certificates and rates, electric systems coordination and reliability, resource allocation, and energy conservation. Today the Agency is a principal governmental reliance in meeting U.S. energy problems.

Yet all of the developments of the last 54 years affecting this Agency are insignificant by comparison with the recent dramatic reversal of our energy supply-demand situation. Post World War II population growth, shifting patterns of population concentration, new energy reliant technologies and mechanization, basic changes in the economy, the emergence of new values and life styles, and a host of other factors have raised the Nation's demand for energy above the deliverable supply, threatening productivity, employment, price stability, and the economy generally. Although the present energy situation was many years in the making, and although the evidence for some time has pointed toward potentially crippling shortages, it is only in recent months that the situation has become a matter of grave public and private concern. The potentially disastrous effects of widespread electric power shortages are not yet fully appreciated.

The effective performance of the Federal Power Commission's functions in fiscal year 1975 is a matter of critical importance to the country. As in previous years, I am today presenting a budget which represents the minimum resources necessary to meet this Agency's responsibilities in a manner which will best serve the public interest.

Natural gas constitutes one-third of the Nation's total energy consumption. I testified to the deepening natural gas shortage in the fall of 1969 before the Senate Interior Committee and have underscored the necessity for policies to reverse the trend of diminishing supply and increasing demand before the Congress, in decisions of the Commission, and in various public forums both here and abroad. Due to the inherent interrelation and interdependence of the various energy forms, the recent shortages of fuels which ordinarily can be substituted for natural gas, such as fuel oil and propane, have intensified the problem.

Demand for natural gas has been outstripping additions to supply for several years. The anticipated deficiency in meeting firm contract requirements for the current 12-month period ending August 1974, exceeds the actual deficiency for the preceding 12-month period by 53 percent. The extent of shortages vary among pipelines, but the imbalance on a nationwide basis between natural gas supply and demand has resulted in curtailment by major pipelines of deliveries to consumers by 10 percent short of national demand. The inevitable result is economic dislocations. I do not envision any immediate increase in supply to meet demand. At best we will be forced to further deplete our diminishing inventories of natural gas, while stimulating supply to the maximum extent possible, and increasing all supplemental sources of natural gas in order to prevent production levels from declining.

To date, 37 jurisdictional pipeline companies have filed with the Commission proposed curtailment plans relating to firm contracts. Eight of these filings have resulted in final Commission orders. The remaining 29 are in various stages of analysis as pending formal proceedings.

Due process requirements of the Natural Gas Act and the Administrative Procedure Act necessitate extensive data gathering and submission upon a record in the hearing phase of each curtailment proceeding. Since interstate natural gas pipeline systems traverse distances frequently exceeding 1,000 miles, the needed market information is extensive. Additionally, since many pipelines sell natural gas to other pipelines, a comprehensive market analysis of each pipeline's direct and indirect sales is necessary.

Petitions for emergency or extraordinary relief from curtailment have been filed by 72 parties to date, and the disposition of these petitions involves separate expedited formal hearings on the record in which all parties are given an opportunity to participate. The continuing decline in the supplies of natural gas undoubtedly will result in the filing of many more petitions for such relief from curtailment plans.

Notwithstanding the tight supply situation overall, some pipeline companies have quantities of natural gas available for market expansion. Applicants seeking authority to expand their markets are required to submit detailed market analyses similar to those required in a curtailment proceeding, to enable the Commission to determine the appropriateness of the end-uses to which incremental supplies might be applied. In addition to the increased manpower requirements associated with formal proceedings concerning these matters, a rapidly increasing amount of staff effort is expended in responding to inquiries made by the consuming public regarding the supply situation generally, by Members of Congress, by State public utility commissions regarding the status of proceedings, and by those seeking relief from curtailment.

Necessary coordination with other Federal agencies responsible for fuel allocation, including the Federal Energy Office, and with the Departments of Agriculture and Commerce for purposes of securing information within their respective capabilities has added also to the Commission's workload.

Since 1969, the Commission has taken a wide range of actions to elicit additional supplies of natural gas, to reverse the downward trend in exploration and development. In 1973, natural gas exploration increased sharply in response to Commission policies increasing wellhead prices, advanced payment program, release of small producers from rate ceilings, emergency measures for short-term sales and other policies designed to improve the efficient allocation of our limited gas resources. Preliminary data indicate that the total gas well completions last year surpassed by about 17 percent the all-time high reached in 1961. This level of drilling is expected to be maintained in 1974 which may result in adding incremental supplies of gas adequate to stay even. It is doubtful that production can be substantially increased in the next three years due to the substantial lead times between an exploration and development program and delivery of gas to market.

Early in 1971, the Commission initiated the National Gas Survey to provide a comprehensive study of all aspects of current natural gas industry operations in the United States. The survey's efforts included a staff study of the Nation's proved gas reserves, the first such study ever undertaken by a Federal agency. The results were published in 1973 as a staff report entitled National Gas Reserves Study, showing the Nation's proved gas reserves as of December 31, 1970, to be 258.6 Tcf compared to the American Gas Association estimate of 286.7 Tcf.

The National Gas Survey for fiscal year 1975 will consist of two parts:

- (1) The major undertaking requiring the majority of the requested positions will be the independent continuing analysis of the Nation's natural gas reserves;
- (2) In-depth examination of policy issues relating to conservation, rate design, research and development, financing, import-export policy, supply-demand equilibrium, intercompetitive relationship of substitutable fuels, environmental impact of resource development and utilization, and the evaluation of alternate methods of attainment of capacity for self-sufficiency.

This country always has been accustomed to an abundant supply of electric energy at relatively low prices. The era of cheap electricity, coal, oil and natural gas has passed. We have been profligate in using electric power and energy resources. We have now established conservation as an essential policy to utilize our resources more efficiently and eliminate unnecessary waste. In 1972, 25.7 percent of all primary resources in the United States was used in the generation of electricity. This percentage is expected to grow, and the 1970 National Power Survey estimated that electric power generation would require more than 30 percent of our energy by 1980 and as much as 41 percent by 1990, increasing to 50% by the year 2000.

Eighty percent of electricity today is derived from fossil fuels, and the adequacy of the Nation's electric power supply is therefore critically dependent upon maintaining an adequate supply of these fuels. In recent years it has been increasingly clear that there are threats to the supply of each of the fossil fuels used for electricity generation, and the Commission has implemented a series of information programs to define and anticipate fuel problems and to devise corrective actions.

With the rise of environmental concerns, restrictions have been placed on the use of various fuels, and to ascertain the effect of those restrictions in reducing pollution and possibly impairing the adequacy of electric supply, both present and future, the Commission since 1971 has been gathering detailed information on fuel characteristics and air and water quality from all major electric generating plants. The information so gathered has been a basic resource for investiga-

tions by the Commission and by the Environmental Protection Agency leading toward balanced Federal actions with respect to power plant environmental considerations.

Since 1972, the Commission also has been gathering and publishing information on the cost and quality of fuel purchases by the electric utilities. This information shows both national and regional trends in fuel costs, and the relationship of sulfur content to the price of fuels.

With the enactment of the Emergency Petroleum Allocation Act, the FPC undertook to provide both data and advisory assistance to the Federal Energy Office relating to oil requirements of the electric utility industry. The FPC obtains each month from electric utilities their projected electric loads and their fuel requirements to meet these loads. By comparison with information in the FPC files, these data are analyzed for reasonableness and for the impact of conservation measures in reducing oil demand. The computed requirements for residual oil allocations and middle distillates are provided to the Federal Energy Office, which then establishes monthly allocations to the electric utility industry based on these demand factors and on their own supply information. The FPC Staff also assists the FEO in evaluating special situations, such as localized electric power supply problems which require uninterrupted oil supplies.

Following publication of the Commission's 1970 National Power Survey, it became clear that several issues require continuing analysis and attention. Accordingly, in 1972, the continuing National Power Survey was established to study electric policy issues and requirements, including conservation, fuel requirements, power supply, finance, research and development, and to recommend policies and actions to rationalize the growing conflicts among the concurrent goals of reliable electric power, reasonable electric power prices, and a clean environment. Trends since the establishment of the current National Power Survey make its mission more urgent. Information developed by the National Power Survey contributes to the effective discharge of Commission responsibilities to promote and encourage the economy, adequacy and reliability of electric power, to effect efficient utilization and conservation of natural resources, to encourage the voluntary interconnection and coordination of electric utilities throughout the United States, and to inform the Congress, industry and the public of these matters.

Although most of the more favorable hydroelectric sites have been developed, opportunities remain for increasing the developed hydroelectric potential. In addition to providing capacity especially favorable for peaking service, hydroelectric plants reduce utility fuel requirements. Following delays caused by litigation and NEPA requirements, including the *Greene County* decision, the Commission is attempting to expedite the consideration of license applications by non-Federal interests for new hydroelectric facilities and to determine other possible installations that might appropriately be considered. For some years the Commission has maintained an inventory of developed and undeveloped hydroelectric projects and has published the results periodically, the latest publication providing data as of January 1, 1972.

We are working closely with the utilities and the State commissions to encourage the transfer, to the extent that it is available, of electric energy generated by hydroelectric, coal, or nuclear-fueled generating facilities to displace electric energy that would otherwise have to be generated by oil or gas-fired units. In this manner, it has been estimated that as much as 20 million Kwh of electricity per day may be furnished to fuel-short utilities in the Northeast and along the Atlantic Coast. We are also working with the utilities and the Federal Energy Office to bring about conversion of plants from oil to coal where this is technically feasible and air quality conditions will permit. Upon completion of an overall conversion program, up to 200,000 barrels of residual oil can be saved daily in those generating units to be converted along the Atlantic Coast.

It is estimated that some 20-30 percent of the fuels now consumed by the Nation could be saved if those fuels were used more efficiently at the point of consumption. Only fragmentary evidence is available concerning how fuels generally are now used, but the case studies in various locations around the country reveal a set of promising immediate and longer term actions. For example, waste heat can be recovered in light industries and used to preheat materials, and can be used to heat the factory. Improved maintenance and adjustment of industrial burners can save about 10 percent of the fuel now used in furnaces. Some new technologically improved equipment is available which can significantly enhance fuel efficiency.

Most of these fuel savings, whether industrial, commercial, or residential, can be effectively introduced through utility actions to help their customers improve fuel efficiency. The FPC chief engineer's office has undertaken a program whereby utility marketing experts can turn their efforts more fully to customer-oriented energy saving activities.

Commission order 495 requested utilities to initiate energy conservation programs on a voluntary basis. Since the order was issued last November, 135 utilities have filed reports on 1972 actions that had been taken in that regard. These actions are modest, but in the right direction. Commission order 496, issued in late November, established a targeted overall nationwide electric energy reduction of 10 percent and required class A and B electric utilities to project their monthly fuel savings that might arise as a result of conservation actions. Order 497, issued in December, requires a monthly statement of savings and projected requirements for fuel, as the result of conservation actions, for the regulated utilities. Order 498, building on earlier Commission actions to meet the reduced availability of natural gas, requested all natural gas pipeline companies to consider the possible adoption of fuel efficiency actions, requested State regulatory commissions to allow energy-conserving costs, set a target of 10 percent demand reduction, and required applicants for special relief to provide evidence of their conservation actions. Responses are arriving at the FPC.

The Chief Engineer's office is monitoring the various technical opportunities for energy improvements for the purpose of providing information to assist the utilities and the State commissions in determining how best to help their customers improve their utilization of fuels. To meet the winter 1973-74 emergency, the Chief Engineer issued a set of guidelines on improvements that could be made in light industry to save fuels, which now is in its second printing. The U.S. Chamber of Commerce has reprinted and distributed an additional 18,000 copies, and we understand that State agencies are using the guidelines in training sessions for industrial users. A second similar manual is now being prepared and will provide technical information on how to adjust and maintain industrial burners to achieve the expected 10 percent fuel savings.

We have initiated a definitive study of the electric resistance heating problem, which is more than an issue of pure fuel efficiency. For instance, electric resistance heating requires no furnace, permitting major potential changes in building design and use; the supply and maintenance systems for electric heaters and other forms of space conditioning are quite different and the need to look 20 to 30 years in the future could change current preferences.

Data concerning exactly how natural gas is used in the various end items and processes is deficient—even simple information as to how much natural gas is used for process heat and how much is used for space heating in industry. We are relatively uninformed about how much natural gas is required for critical feedstocks [such as in agriculture], and where substitutable fuels such as naphtha or methane might reasonably be introduced to replace gas. We therefore plan a detailed study of the end use of natural gas to determine: (1) how to use natural gas more efficiently, (2) the extent to which substitutable resources can be utilized in place of natural gas.

The expanding involvement of the Commission in environmental quality, curtailments, and conservation have greatly increased the Commission's need for more current data on national and regional energy consumption patterns, by source, form, and end-use, including supplies of alternative fuels. The Commission is also seeking to collect information on intrastate and other nonjurisdictional sales of natural gas to assist in FPC regulatory purposes.

The fiscal year 1975 estimate includes funds for continuing the full-scale development of the Commission's Regulatory Information System. This program, begun in fiscal year 1973, looks toward a fully-automated computer system serving all levels of Federal Power Commission management. It calls for the application of advanced systems techniques to the entire spectrum of responsibilities and functions of the agency, and will permit more effective analysis and action regarding the full range of Federal Power Commission responsibilities, including the publication of energy information on a much more timely basis.

The heart of Regulatory Information System will be a data bank available to all FPC staff members in their daily operations through computer terminals. The bank will initially contain only information collected from utilities and natural gas companies. Under the planned second phase of implementation, information from regulatory filings, exhibits in proceedings, studies and other sources will be included.

The Commission has long recognized the need for a much stronger national energy R. & D. program. The investment of \$10 billion in the next 5 years or upwards of \$20 billion in the next 10 years in federally funded R. & D. will assist in attaining a relative energy independence in the next 2 decades as well as to find more efficient and environmentally compatible methods of supplying the energy needs of our society. By Order No. 408, issued in August 1970, and Order No. 483, issued in April 1973, the Commission modified its regulations and accounting procedures to encourage energy R. & D. investment by jurisdictional companies. In 1973 the electric power industry established the independent Electric Power Research Institute, which is now supported by an electric power industry annual budget approaching \$100 million per year. In January 1974, the natural gas industry released a study entitled, "Natural Gas Research Plan, 1974-2000," which details a proposed national gas R. & D. program totaling \$2.3 billion over the first 5 years. Gas industry committees are working on implementation of the plan, the key element of which is the formation of an independent research organization, supported by the gas industry and thus the consumer, which will assume major responsibility for the R. & D. program.

In January of this year, I established a staff R. & D. task force with representation from all of our professional bureaus and offices to work with both jurisdictional industries and the emerging Federal R. & D. program to assure a prudent use of financial resources and an effective R. & D. effort. A reliable energy future depends on today's national R. & D. program—both Federal and industry supported.

The energy shortage has greatly increased the problems relating to energy and the environment. This Commission is dedicated to the proposition that we can have both sufficient supplies of energy and a healthy environment.

However, the National Environmental Policy Act of 1969 and, in particular, the *Greene County* decision in 1972 have put a heavy burden on our staff which must now prepare independent environmental impact statements for each action which we judge to be a "major Federal action significantly affecting the quality of the human environment." Although we require complete and detailed environmental reports from all applicants for authority to construct or modify jurisdictional facilities, an average of about 3 man-years of staff effort is required for each of about 30 environmental impact statements per year. About 25 of these are for projects leading to new energy supplies and the other 5 are for changes to hydroelectric projects that relate to better resource management. In a year's time, staff will also examine the environmental consequences of at least an additional 400 applications for which it is able to demonstrate that the environmental impacts are not significant and thus environmental impact statements are not required.

Staff also reviews and prepares comments on environmental impact statements of other agencies for projects of direct concern to our jurisdictional responsibilities.

To reduce the staff effort expended and to improve the quality of our environmental judgment, a generic approach to the evaluation of environmental impacts has been developed. This approach is pertinent to river basins where there are a number of potential hydroelectric sites and licensed hydroelectric projects requiring relicensing. Since most relicensing applications concern facilities that have been operated for 50 years or more, the evaluation is a part of the determination as to whether relicensing for an additional number of years is in the public interest. The basin-wide analysis identifies key environmental issues and then evaluates them in common to all of the pertinent facilities. Under such procedure, we not only save staff time otherwise spent in partially duplicative studies but are better able to put each licensing decision in a better environmental perspective.

Of particular importance in fiscal year 1975, our staff will be working with the Department of the Interior in analyzing several proposals for the transmission of natural gas from the U.S. Arctic North Slope to markets in the lower 48 States. A single environmental impact statement will be prepared which will satisfy the requirements of both agencies. The statement will evaluate all competing proposals.

A number of our key staff personnel are engaged in interagency studies of energy supply, delivery and management systems. Under the aegis of the Council on Environmental Quality we provide unique capabilities to groups studying offshore nuclear power plants, safety of LNG facilities, and outer continental

shelf development, three programs vital for future development of new energy resources and facilities.

In numerous appearances before committees of both Houses of Congress, I have recommended deregulation with strict monitoring and surveillance of prices, incremental volumes, and competitive market conditions to protect the public interest which should increase the commitment of risk capital to a greatly expanded exploration and development program to meet the growing demands of a productive economy. The persistent decline in reserves and new findings exacerbates the national energy emergency and affirms the conclusion that we have expressed for over 4 years that major national actions are required to reverse diminishing natural gas supplies. The emerging shortage of other deliverable fuels and the slippage in the nuclear program over the near term compels further conservation and reliance on oil imports until we can develop the balanced energy resources in the United States to become energy independent.

Over a period of years, the FPC has sought broadened authority to collect and publish information with respect to the natural gas industry commensurate with the authority the Commission exercises to obtain information from entities of the electric industry, whether or not subject to the Commission's jurisdiction under the Federal Power Act.

Our proposed amendment to section 14 of the Natural Gas Act will enable the Commission: (1) to secure information concerning the production and marketing of natural or artificial gas from companies not now subject to the jurisdiction of the Commission; and (2) to collect on a current and continuing basis the total estimated natural gas reserves of all fields or reservoirs in the United States whether or not a company is jurisdictional.

As U.S. energy problems have accelerated activity generally under the Federal Power Act and the Natural Gas Act, the Commission's caseload has expanded correspondingly. The estimated construction cost of new hydroelectric energy facilities for which the Commission now has applications in process is approximately \$3.2 billion, including 18,000 megawatts of new capacity in 35 hydroelectric projects and \$1.6 billion worth of construction contemplated by 238 pipeline certificate applications.

There is currently in operation 60 million kilowatts of conventional hydroelectric power and an additional 14,500,000 kilowatts of pump storage capacity in operation or applied for. Present hydroelectric facilities constitute about 15 percent of total existing U.S. generating capacity. About one-half of the present hydroelectric capacity operates under Federal Power Commission licenses. The potential additional hydroelectric capacity is estimated at 125 million kilowatts, of which 32,500 is in Alaska, and 92,700 in the lower 48 states.

In fiscal year 1973, the Commission's workload relating to natural gas pipeline facilities involved the processing of 757 applications for certificates representing costs estimated at \$2,834,000,000, for 6,140 miles of additional transmission pipeline and 595,731 additional compressor horsepower.

Because of inflation, financing problems, increased costs of fuels, materials, and labor, and many other economic problems, rate matters filed with the Federal Power Commission continue to increase in number and complexity. On March 1, 1974, there were 130 formal electric rate and interconnection cases on hand involving just under \$190 million in proposed annual increases. Until 1970, electric rate schedule reductions exceeded rate increases in spite of a rising cost of living. Last year, fiscal year 1973, rate reductions accepted for filing totaled only \$270,000 while annual rate increases accepted for filing totaled \$16 million. An additional \$63 million in annual electric rate increases were suspended and set for hearing.

In such terms, our workload increases are substantial. However, much more significant in relation to our workload is the increasing complexity of the cases, due in large part to shortages, which add new dimensions in almost every case.

Mr. Chairman, after discussion with the Appropriations Subcommittees concerning the need to recover from the regulated companies a greater portion of the costs of administering FPC programs, the Commission on March 18, 1971, issued order No. 427 which increased fees generally, instituted new fees to be paid by public utilities, and assessed new annual charges against public utilities and natural gas companies. Regulated companies appealed the order to the U.S. Court of Appeals for the District of Columbia Circuit, challenging the new annual charges against public utilities as well as those to be paid by natural gas companies. Thereafter, all collections required by order No. 427 were placed in a

special account established by the Department of the Treasury, to be held in escrow.

By decision of August 15, 1972, the court of appeals set aside order No. 427 insofar as it levied annual charges against both public utilities and natural gas companies. Previously required annual charges against public utilities under Part I of the Federal Power Act and new and increased filing fees pursuant to the order were left undisturbed by the court decision.

The U.S. Supreme Court granted certiorari, and in a decision handed down on March 4, 1974, the Court affirmed the decision of the court of appeals. Accordingly, annual charges in the amount of \$2,444,568.40 collected since July 1, 1971, are being refunded to the regulated companies. The remainder of the escrow account, in the amount of \$6,624,118.87, which was derived from the collection of fees, is being transferred to the miscellaneous receipts account of the Treasury.

INTRODUCTION

With the enactment on November 27, 1973, of P.L. 93-159, this Commission's duties and responsibilities in the energy fields have taken on new dimensions in respect to emergency actions to meet the Nation-wide fuel emergency conditions. In addition to on-going major administrative initiatives of the Commission under the Natural Gas Act and the Federal Power Act covering the allocation of interstate natural gas supplies, the adequacy and reliability of bulk power supplies and the conservation of both energy forms, the Commission has assumed major support responsibilities in assisting the Federal Energy Office in that agency's allocation of other fuels (primarily petroleum at the present time) for use in electric utility generation and the exercise of such authority as the FEO may have to direct the physical conversion of petroleum and natural gas fueled electric generating capacity to coal firing.

These direct and support responsibilities include the Commission's administration, under emergency conditions, of a Nation-wide allocation program covering interstate pipeline supplies of natural gas. They include the Commission's fact gathering, analyses and recommendations concerning the allocation by FEO of petroleum fuel supplies for electric utility use. They include Commission analyses and recommendations to FEO for the conversion of electric generating stations to coal firing.

Under the Federal Power Act and the Natural Gas Act, the Commission has established energy conservation programs with respect to natural gas and electric power. Commission Order Nos. 495, 496, 497 and 498, issued between November 13 and December 21, 1973, established an ongoing energy conservation program for electric utilities, instituted emergency actions for conservation of fuel resources by electric utilities, and initiated a nation-wide conservation program for natural gas. These programs support the Administration's objectives related to relieving the energy crisis.

The Nation-wide fuel emergency conditions have greatly expanded this agency's administrative workload arising from the exercise of its statutory duties and responsibilities.

The Federal Power Commission must exercise its responsibilities in the regulation of natural gas and electric power in an era when demand for these energies is rising faster than supply, and the supply situation is further complicated by environmental considerations.

Natural gas is the Nation's "premium fuel" the President told the Congress in his first energy message earlier this year. It is economical, convenient, clean, and has very low pollution characteristics.

In 1972 the natural gas producers of the country supplied about 14.1 trillion cubic feet of the "premium fuel" to interstate pipeline companies for delivery to ultimate customers. The 1975 production is not expected to be enough to meet demand, and potential users will have to rely on other sources of natural gas or other fuels. During the period September 1973 through August 1974, 17 major pipeline companies reported they would curtail their customer's firm requirements.

Unless new policies improve exploration and development, by 1980 Staff estimates we will produce a total of about 20.5 trillion cubic feet annually from domestic reserves with an additional 4.5 trillion cubic feet possibly available from supplemental sources to meet an anticipated demand of about 34.5 trillion cubic feet. These levels of supply would result in an unsatisfied demand for gas of about 9.5 trillion cubic feet in that year. By 1990 we would need

nearly 29 trillion cubic feet of gas over and above the 18 trillion cubic feet expected to be produced domestically in order to balance supply with demand.

Electric power is similarly caught between increasing demand and restrictions on the addition of electric power generating facilities to meet the demand as well as limitations upon the availability of primary fuels to serve generating capacity. Within the next ten years the industry must more than double its generating capacity if it is to satisfy this demand. Nuclear power will supply much of this new generating capacity but is experiencing difficulties in meeting the projected growth rates. Fossil fuel, including natural gas, must be relied upon to fill much of the need for at least the next twenty years.

In recent years the electric power industry has met well organized opposition from groups dedicated to the improvement of the environment. Their concern is well founded, but the result can be a slow-down in the construction of vital generating facilities while environmental effects are determined.

The climate of regulation has evolved from a situation where natural gas and electric power were abundant, with emphasis on cheap energy, to the present where gas and other fossil fuels are scarce and emphasis is on shortages, gas and electric power conservation, and environmental protection. Currently the most critical concern is availability of energy which is vital to our life style and which, in many specific instances involving the Commission, develops into adjudication of controverted environmental issues in prolonged proceedings before the Commission and the courts. The Nation is confronted with a national energy emergency. Problems of conservation and allocation of limited resources predominate.

Regulation requires the resolution of conflicting issues or their optimum balance in the public interest. More demands on manpower and regulatory technology are a concomitant of the broadening of interest. An expanded, better-trained and better-informed staff is the price of protecting the public interest as regulation becomes more complex.

The Federal Power Commission is requesting \$32,393,000 and 1,337 positions in FY 1975. The request is \$3,697,000 and 40 positions more than the estimate for FY 1974. The increase is primarily due to the funding of space and related requirements of the Commission in FY 1975, which must be borne by the Commission under PL 92-313, rather than funded by the General Services Administration. In FY 1975 this amounts to \$2,230,000 more than in 1974. The balance of the increase, \$1,467,000, is primarily to cover increased pay costs, and the cost of additional personnel and related services (\$922,000). Increases for travel, contractual services, printing, supplies and equipment account for the final \$545,000.

DISTRIBUTION OF 40 ADDITIONAL POSITIONS BY PROGRAM

Hydroelectric Power Regulation	+ 6
Electric Power Industry Systems Evaluation	+ 4
Electric Power Utilities Regulation	+ 6
Natural Gas Pipeline Regulation	+ 12
Natural Gas Producers Regulation	+ 2
Conservation Research	+ 3
Administration	+ 7

SUMMARY OF MAJOR WORKLOAD CHANGES 1973-1975

Filings, Applications, Audits, Inspections

Quantitatively the number of major work items filed with or initiated by the Commission continues to increase or remain at a

high level. These are certificate and license applications, rate filings, exhibits, audits, and inspections.

MAJOR WORKLOAD INCREASES

1973-1975

	<u>1973</u>	<u>1975</u>	<u>Change</u>
Project Applications	600	634	+ 4
Project Environment & Conservation	871	905	+ 34
Inspections	866	1030	+164
Electric Rate Filings	3782	3904	+122
Pipeline Certificates	757	977	+220
Pipeline Rate Filings	1370	1494	+124
Producer Certificates	4163	4974	+811
Accounting Audits	64	72	+ 8

Proceedings, Rulemaking, Litigation

The energy crisis, economic factors, and environmental concerns have resulted in an expansion of our legal workload.

CASE WORKLOAD INCREASES

1973 - 1975

	<u>1973</u>	<u>1975</u>	<u>Change</u>
Hydroelectric	12	31	+ 19
Electric Utility	116	141	+ 25
Pipeline Certificates	87	125	+ 38
Pipeline Rates	155	157	+ 2

Environmental

The Commission has had an environmental responsibility for many years. The Greene County decision (Greene County Planning Board v. FPC, 455 F. 2d. 412 CA2 January 17, 1972) requires the Commission to prepare its own Environmental Impact Statements rather than circulating the applicant's statement for comment as was done formerly. The preparation of such statements requires highly trained staff specialists and anywhere from 1 to 4 man-years of effort for each statement.

FPC ENVIRONMENTAL STATEMENTS

	<u>1973</u>	<u>1975</u>	<u>Change</u>
Hydroelectric	402	416	+ 14
Pipeline Certificates	15	28	+ 13

Regulatory Information System

The essential need for accumulating, processing and retrieving in useful form the vast amount of data needed for regulatory purposes, makes a sophisticated, timely and accurate regulatory information system mandatory. We are well under way on the development of this system. We expect manpower savings to accrue when the system is installed and tested.

Assistance to Others

Not identified in the formal work structure of the Commission are the considerable resources assigned to assist and to cooperate with other Executive Agencies and the Congress in matters vital to the resolution of the energy problem, and in other areas in which our staff expertise is needed. Our staff is called upon to testify in proceedings before the Atomic Energy Commission. We are active participants in many interagency studies and joint actions. In our assistance to the Congress an excellent example is "A Natural Fuels and Energy Policy Study," S. Res. 45, approved by the Senate May 3, 1971. This joint study committee, composed of the Committee on Interior and Insular Affairs, the Joint Committee on Public Works, and Ex-officio members of the Committee on Commerce and the Committee on Public Works, has used hundreds of man-hours of Commission Staff assistance during the past two years.

Conservation Research

The Commission proposes to initiate a conservation program for the purpose of identifying and evaluating those technologies that have demonstrated their fuel-saving potential, and in providing that evaluated information to the public utilities and others that can serve as the most efficient agents in disseminating the advice and bringing the potential nationwide fuel saving to actual achievement.

MAJOR WORKLOAD AND DOLLAR VALUES

Following is a summary of the number of and dollar amounts involved in applications for various licenses and certificates under the jurisdiction of the Commission.

HYDROELECTRIC AND ELECTRIC POWER
APPLICATIONS PENDING SEPTEMBER 30, 1973

	<u>No.</u>	<u>Estimated</u> <u>Investment</u>
<u>Hydroelectric Projects</u>		
<u>New Capacity Projects</u>		
Preliminary Permits	7	\$ 916,222,000
Major Licenses	27	2,101,374,000
Major Relicense	4	138,233,000
Additions to Existing Projects	3	118,501,000
Total New Capacity - Major	41	<u>\$3,274,330,000</u>

<u>Constructed Projects</u>		
Major Licenses	103	\$ 257,518,000
Major Relicense	64	481,437,000
Total Major Constructed Projects	167	\$ 738,955,000
<u>Total Major Projects</u>	208	\$4,013,285,000
<u>Electric Power Utilities Regulation</u>		
Rate Increase Applications	55	\$ 76,000,000

SELECTED NATURAL GAS PIPELINE AND PRODUCER
APPLICATIONS PENDING SEPTEMBER 30, 1973

Pipeline Applications

<u>Certificates</u>		
Construction and Operation or Acquisition	278	\$1,366,138,925
Applications	60	--
	338	\$1,366,138,925
	129	516,404,708
Applications	1,838	--
<u>APPLICATIONS</u>	2,305	\$1,882,543,633

Applications

Set forth below are the amounts estimated for collection in FY 1975, including amounts to be collected under order No. 427, which is subject to pending judicial review in the U.S. Supreme Court.

<u>Part I - FPA</u>	<u>FY 1975</u>
Administration of Part I	\$ 3,685,000
Headwater Benefits	3,300,000
Other Part I Collections	1,598,000
<u>Parts II and III - FPA</u>	
Filing Fees	\$ 956,000
Administration of Electric Regulatory Programs	2,913,000
Coordination and Reliability	2,673,000
<u>Natural Gas Act</u>	
Certificate and Other Filing Fees	\$ 1,431,000
Administration of Natural Gas Programs	8,139,000
<u>Miscellaneous</u>	
Sale of Publications and Services	\$ 16,000
Total Collections	24,711,000
Budget Requests	32,393,000

A summary of the FY 1975 budget request follows.

FEDERAL POWER COMMISSION
SUMMARY OF ACTIVITIES

1975 BUDGET TO THE CONGRESS

	1973 Actual		1974 Estimate		1975 Estimate		Change 1974-1975	
	Posi- tions	Amount	Posi- tions	Amount	Posi- tions	Amount	Posi- tions	Amount
I. Hydroelectric Power Regulation	200	\$ 3,073,137	209	\$ 4,789,000	215	\$ 5,367,000	+ 6	+\$ 578,000
II. Electric Power Industry Systems Evaluation	132	2,375,897	134	3,093,000	138	3,438,000	+ 4	+ 345,000
III. Electric Power Utilities Regulation	147	3,005,679	154	3,533,000	160	3,991,000	+ 6	+ 458,000
IV. Natural Gas Pipeline Regulation	366	6,575,190	390	8,747,000	402	9,839,000	+12	+ 1,092,000
V. Natural Gas Producers Regulation	192	3,527,214	203	4,164,000	205	4,732,000	+ 2	+ 568,000
VI. Natural Gas Industry Systems Evaluation	31	903,167	13	384,000	13	420,000	-	+ 36,000
VII. Services to Other Agencies and Public	93	1,683,311	88	1,856,000	88	2,031,000	-	+ 175,000
VIII. Conservation Research					3	100,000	+ 3	+ 100,000
IX. Administration	99	1,616,817	106	2,130,000	113	2,475,000	+ 7	+ 345,000
Total Costs Funded	1260	\$22,760,412	1297	\$28,696,000	1337	\$32,393,000	+40	+\$3,697,000
Changes in Selected Resources	-	+ 359,483	-	-	-	-	-	-
Total Obligations	1260	\$23,119,895	1297	\$28,696,000	1337	\$32,393,000	+40	+\$3,697,000
Reimbursables	3	+ 109,606	-	-	-	-	-	-
Unobligated Balance	-	+ 847,499	-	-	-	-	-	-
Appropriation or Request	1263	\$24,077,000	1297	\$28,696,000	1337	\$32,393,000	+40	+\$3,697,000
Distribution of Costs by Major Object Classes								
Personnel Compensation		\$18,828,607		\$22,019,000		\$22,900,000		+\$ 881,000
Travel		568,467		710,000		760,000		+ 50,000
Other Costs		3,363,338		5,967,000		8,733,000		+ 2,766,000
Total Costs Funded		\$22,760,412		\$28,696,000		\$32,393,000		+\$3,697,000

SOURCE AND APPLICATION OF FUNDS COLLECTED
FROM ALL SOURCES

1. SOURCE OF FUNDS	1973 <u>Actual</u>	1974 <u>Estimate</u>	1975 <u>Estimate</u>
Annual Fees from licensees:			
Collections for administering Part I of the Federal Power Act	\$ 2,744,688	\$ 3,405,000	\$ 3,685,000
Collections for use of Federal lands	214,808	215,000	215,000
Collections for maintenance of navigation	427,404	427,000	427,000
Fines, penalties and other forfeitures	232	1,000	1,000
Collections for use of Indian lands	12,203,786	954,000	954,000
Oregon and California Land Grant	<u>1,158</u>	<u>1,000</u>	<u>1,000</u>
Subtotal annual fees from licensees	\$15,592,076	\$ 5,003,000	\$ 5,283,000
Headwater benefit payments	<u>1,874,299</u>	<u>2,800,000</u>	<u>3,300,000</u>
Subtotal collections under Section 10(e) of the Federal Power Act	\$17,466,375	\$ 7,803,000	\$ 8,583,000
Fees and annual assessments under Part II and III, FPA:			
Collections for administration of the coordination and reliability programs	\$ 293,015	\$ 2,046,122	\$ 2,673,000
Collections for administration of the electric regulatory programs		2,373,892	2,913,000
Electric regulatory filing fees	<u>814,783</u>	<u>869,000</u>	<u>956,000</u>
Subtotal fees and annual assessments, Parts II and III, FPA	\$ 1,107,800	\$ 5,289,014	\$ 6,542,000
Fees and annual assessments under NGA:			
Pipeline certificate fees	\$ 1,867,175	\$ 1,660,000	\$ 1,431,000
Collections for administration of the natural gas pipeline programs	-	5,211,017	7,789,000
Collections for administration of the producer certificate programs	<u>-</u>	<u>300,000</u>	<u>350,000</u>
Subtotal fees and annual assessments, Natural Gas Act	\$ 1,867,175	\$ 7,171,017	\$ 9,570,000
Miscellaneous:			
Sales of publications and miscellaneous services	<u>12,766</u>	<u>16,000</u>	<u>16,000</u>
TOTAL COLLECTIONS	\$20,454,116 ^{1/}	\$20,279,031 ^{2/}	\$24,711,000 ^{3/}

1/ Includes \$2,974,965 collected pursuant to Order No. 427 and held in special deposit pending outcome of litigation.

2/ Includes an estimated \$12,460,031 in annual charges and fees pursuant to Order No. 427 which is under litigation.

3/ Includes an estimated \$16,112,000 in annual charges and fees pursuant to Order No. 427 which is under litigation.

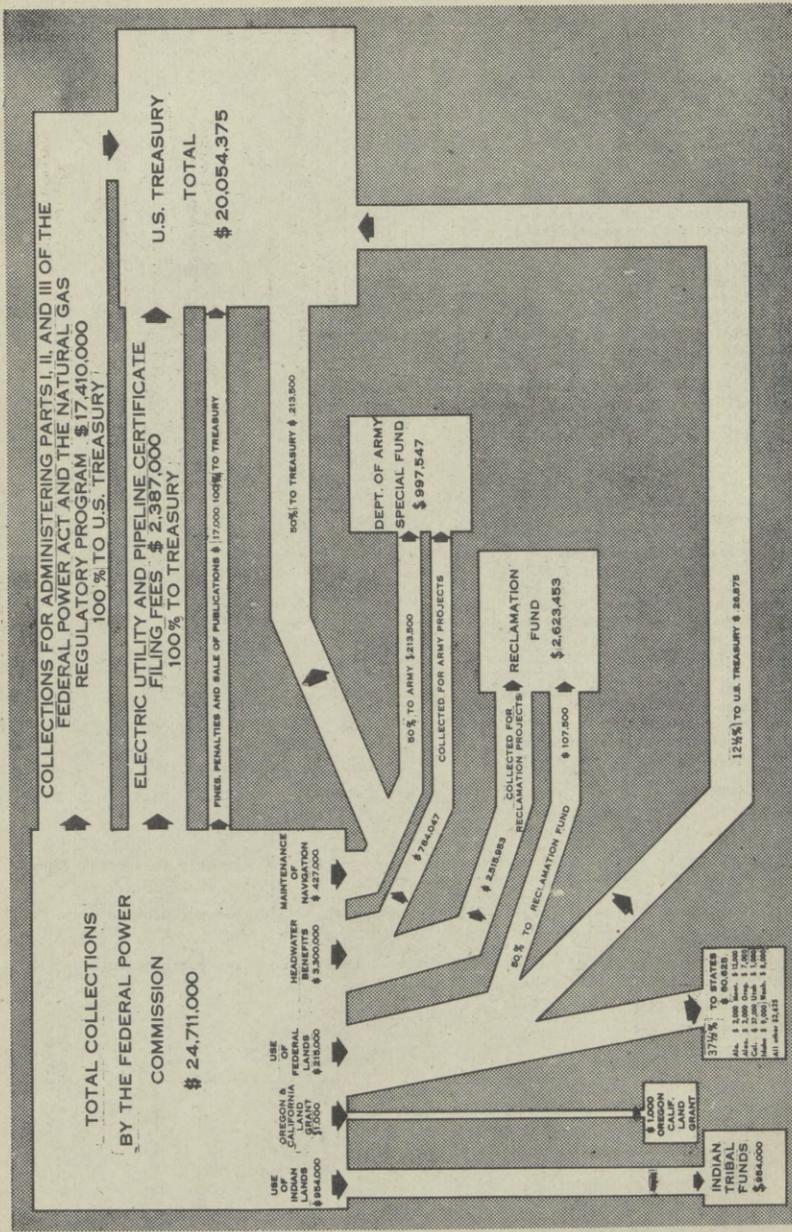
2. APPLICATION OF FUNDS	1973 Actual	1974 Estimate	1975 Estimate
Credited to "Miscellaneous Receipts" - U.S. Treasury:			
Collections for Administering Part I of the Federal Power Act	\$ 2,744,688	\$ 3,405,000	\$ 3,685,000
Portion of collection from projects on Federal lands	26,851	26,875	26,875
Portion of collection from maintenance of navigatio	213,702	213,500	213,500
Collections for administering the coordination and reliability programs	293,015	2,046,122	2,673,000
Collections for administering the electric regulatory programs	-	2,373,892	2,913,000
Electric regulatory filing fees	814,785	869,000	956,000
Pipeline certificate fees	1,867,175	1,660,000	1,431,000
Collections for administering the natural gas pipeline programs	-	5,211,017	7,789,000
Collections for administering the producer certificate programs	-	300,000	350,000
Sales of publications and miscellaneous services	12,766	16,000	16,000
Fines, penalties and other forfeitures	232	1,000	1,000
Subtotal "Miscellaneous Receipts"	\$ 5,973,214	\$16,122,406	\$20,054,375
Payment to various states (37½ of collections from projects on Federal lands)	80,553	80,625	80,625
Payment to Reclamation funds from headwater benefits and projects on Federal lands	1,536,396	2,242,248	2,623,453
Special Fund for Department of the Army, from headwater benefits and navigation maintenance Oregon and California Land Grant fund	659,009	878,752	997,547
Collections for use of Indian lands	1,158	1,000	1,000
	<u>12,203,786</u>	<u>954,000</u>	<u>954,000</u>
TOTAL PAYMENTS	\$20,454,116 ^{1/}	\$20,279,031 ^{2/}	\$ 24,711,000 ^{3/}

^{1/} Includes \$2,974,965 collected pursuant to Order No. 427 and held in special deposit pending outcome of litigation.

^{2/} Includes an estimated \$12,460,031 in annual charges and fees pursuant to Order No. 427 which is under litigation.

^{3/} Includes an estimated \$16,112,000 in annual charges and fees pursuant to Order No. 427 which is under litigation.

SOURCE AND APPLICATION OF FUNDS COLLECTED BY THE FEDERAL POWER COMMISSION E.Y. 1975 Estimate



SOURCE: FEDERAL POWER COMMISSION FY 1975 BUDGET

ELECTRIC POWER PROGRAMS SUMMARY

Program	FY 1973		FY 1974		FY 1975		Change 1974-1975	
	Posi- tions	Amount	Posi- tions	Amount	Posi- tions	Amount	Posi- tions	Amount
Hydroelectric Power Regulation	200	\$ 3,073,137	209	\$4,789,000	215	\$5,367,000	+ 6	+\$ 578,000
Electric Power Industry Systems Evaluation	132	2,375,897	134	3,093,000	138	3,438,000	+ 4	+ 345,000
Electric Power Utilities Regulation	147	3,005,679	154	3,533,000	160	3,991,000	+ 6	+ 458,000
Services to Other Agencies and to the Public ^{1/}	86	1,578,159	82	1,736,000	81	1,899,000	- 1	+ 163,000
Total Electric Power Programs	<u>565</u>	<u>\$10,032,872</u>	<u>579</u>	<u>\$13,151,000</u>	<u>594</u>	<u>\$14,695,000</u>	<u>+15</u>	<u>+\$1,544,000</u>

1/ This category includes the following programs: Review of Federal Hydroelectric Projects, Rates, and Cost Allocations; Headwater Benefits Determinations; Joint Water Resources Studies; and Hydroelectric and Electric Utilities Recurring Data Reports.

I. HYDROELECTRIC POWER REGULATIONComparative Summary of Activity

	1973 <u>Actual</u>	1974 <u>Estimate</u>	1975 <u>Estimate</u>	Change from 1974
A. <u>River Basin Appraisals</u>				
Positions	14	16	16	-
Costs	\$ 244,331	\$ 333,000	\$ 368,000	+\$ 35,000
B. <u>Power Site Lands Applications</u>				
Positions	6	6	6	-
Costs	78,628	129,000	143,000	+ 14,000
C. <u>Projects Licensing</u>				
Positions	120	125	129	+ 4
Costs	1,747,277	2,837,000	3,196,000	+ 359,000
D. <u>Accounting Surveillance</u>				
Positions	8	8	8	-
Costs	137,122	223,000	242,000	+ 19,000
E. <u>Project Inspection and Supervision</u>				
Positions	30	30	31	+ 1
Costs	632,356	733,000	805,000	+ 72,000
F. <u>Formal Proceedings, Rulemaking and Litigation</u>				
Positions	22	24	25	+ 1
Costs	233,423	534,000	613,000	+ 79,000
G. <u>Reimbursable Programs*</u>				
Positions	(3)	-	-	-
Costs	<u>(109,606)</u>	<u>-</u>	<u>-</u>	<u>-</u>
*Not included in program total				
<u>TOTAL HYDROELECTRIC POWER REGULATION</u>				
Positions	200	209	215	+ 6
Costs	<u>\$3,073,137</u>	<u>\$4,789,000</u>	<u>\$5,367,000</u>	<u>+\$578,000</u>

I. HYDROELECTRIC POWER REGULATION

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	200	209	215	+ 6

The conventional hydroelectric generating capacity potential of the United States is estimated to be about 180 million kilowatts. With total electric power requirements expected to double during the next ten years, the optimum utilization of this potential must be fully tapped.

As of today, conventional and pumped storage hydroelectric facilities constitute approximately 15 percent, or 60 million kilowatts, of the Nation's electric power generating capacity. About half of this, or some 31 million kilowatts is operated under licenses issued by the Federal Power Commission.

Licenses have been issued since the enactment of the Federal Water Power Act of 1920. In 1935 the provisions of that act, as amended, were made a part of the Federal Power Act of 1935. As of September 1, 1973, 627 licenses were in effect, covering more than 700 hydroelectric developments. The 372 projects under major license represent an ultimate generating capacity of 42.5 million kilowatts.

Through its hydroelectric power regulation program, the Commission oversees the development and operation of non-Federal hydroelectric facilities. The Commission is responsible for the optimum utilization of the Nation's potential waterpower resources within the guidelines established by the Congress.

These responsibilities are carried on through the following program activities:

A. RIVER BASIN APPRAISALS

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	14	16	16	0

The optimum utilization of the Nation's water power potential requires that proposed developments be consistent with comprehensive basin plans for all beneficial purposes. Section 10(a) of the Federal Power Act requires the Commission to follow such plans in its licensing decisions.

Where the basin plans are not complete or require updating, the Commission undertakes river basin appraisal studies, first determining whether the data required are not available, or will not be available through other Federal or State agencies. Priority is given to those appraisals which are required for outstanding or upcoming cases involving licensing, relicensing or possible Federal takeover.

In all studies, however, the Commission staff obtains all available information from other agencies. The Commission staff then reviews and analyzes these data, collects economic data pertaining to the area, including projections of future development, collects and summarizes data on existing water and related land resources developments in the basin, and analyzes the impact of pending licenses on the overall basin plans.

The Commission maintains an inventory of the Nation's developed and undeveloped hydroelectric power resources. Approximately 3500 hydroelectric projects are included in this inventory. These data are used for licensing work, power site land evaluations and other program purposes. In addition, they are used by Federal, State, local and international bodies, and industry, concerned with water resources development.

<u>WORKLOAD—River Basin Appraisals</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
On hand July 1	9	11	8
Received	4	2	4
Total Workload	13	13	12
Completed	2	5	5
On hand June 30	11	8	7

B. POWER SITE LAND APPLICATIONS

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	6	6	6	0

The United States, as of June 30, 1973, had approximately 15 million acres of land reserved for purposes of power development.

These lands cannot be used for purposes other than power development unless the Commission determines that such use will not injure or destroy the land for the purpose of power development.

The following workload includes only determinations under Section 24 of the Federal Power Act. Additional workload generated under the provisions of the Mineral Leasing Act of 1920 and the Mining Claims Restoration Act of 1955, are not included. About 250 inquiries relative to the provisions of these two acts are processed annually.

<u>WORKLOAD</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
On hand July 1	66	34	31
Received	98	86	86
Total Workload	164	120	117
Completed	130	89	89
On hand June 30	34	31	28

C. PROJECT LICENSING

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	120	125	129	+ 4

Since the passage of the Federal Water Power Act in 1920, the Federal Power Commission has been licensing hydroelectric facilities on navigable waterways, on any streams over which the Congress has jurisdiction under its authority to regulate interstate and foreign commerce, or on public lands or reservations of the United States.

The licensing activity includes the issuance of preliminary permits, the licensing of new facilities and facilities already constructed but not under license, and the relicensing of hydroelectric facilities having licenses which are expiring.

The workload of this activity not only remains at a high level, but is increasing qualitatively as the number of economically viable sites decrease, as the demands for alternative uses increase, and as the regulative and judicial constraints, conditions and limitations multiply. The National Environmental Policy Act of 1969, as a single example, has placed upon the Commission increased staff workload, and has delayed the processing of a large backlog of applications.

Preliminary Permits

Extensive investigation and engineering and economic studies are required to support the filing of a license application. To preserve an applicant's priority rights over other potential applicants while this information is being developed, the Commission may issue a preliminary permit for a period not exceeding three years.

WORKLOAD

<u>Preliminary Permit Applications</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
On hand July 1	5	5	4
Received	3	3	3
Total Workload	8	8	7
Completed	3	4	4
On hand June 30	5	4	3

Licensing

Licensing is a primary function of the Commission's hydroelectric regulatory program. The licensing process is the vehicle by which the Commission determines that the project fits into a comprehensive plan of basin development, that its structures are safe, and that it is otherwise in the public interest.

License applications fall into four major categories: New Construction, Constructed Projects, Relicense, and Others.

WORKLOAD

<u>Hydroelectric Project Licensing</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
<u>On hand July 1</u>			
New Construction	19	19	17
Constructed Projects	134	135	125
Relicense Applications	62	71	63
Other Applications	<u>275</u>	<u>288</u>	<u>278</u>
Total	490	513	483
<u>Received</u>			
New Construction	1	4	4
Constructed Projects	4	5	5
Relicense Applications	9	2	2
Other Applications	<u>96</u>	<u>110</u>	<u>110</u>
Total	110	121	121
<u>Total Workload</u>			
New Construction	20	23	21
Constructed Projects	138	140	130
Relicense Applications	71	73	65
Other Applications	<u>371</u>	<u>398</u>	<u>388</u>
Total	600	634	604
<u>Completed</u>			
New Construction	1	6	6
Constructed Projects	3	15	20
Relicense Applications	0	10	10
Other Applications	<u>83</u>	<u>120</u>	<u>124</u>
Total	87	151	160
<u>On hand June 30</u>			
New Construction	19	17	15
Constructed Projects	135	125	110
Relicense Applications	71	63	55
Other Applications	<u>288</u>	<u>278</u>	<u>264</u>
Total	513	483	444

The number of applications for new projects has been increasing, primarily for pumped-storage hydroelectric facilities. Many of these complex developments are contested and require a hearing. Since licenses may be granted for up to 50 years, the terms and conditions to be imposed require thorough background preparation. The effect of the design, construction, and operation of the project on public safety, on fish and wildlife resources, on scenic and recreational values, and the extent of minimum flows necessary for the protection of water quality and fishery resources must be examined. In addition, the effect of proposed steam-electric generating plants and other industrial uses of hydroelectric project reservoirs upon the thermal and chemical properties of project waters must be determined.

There are many projects that are not yet licensed by the Commission. To provide for their continued operation in a manner best utilizing the water and land resources, and to require their contribution to the costs of administering Part I of the Act, is in the public interest. There continues to exist a sizable backlog of applications for these unlicensed projects. Most of the steps required in processing these applications are the same as those for new project proposals.

Relicense applications, like initial applications for license, require similar processing from filing to final action by the Commission. The Commission must determine whether the project is to be relicensed or a recommendation is to be presented to the Congress for takeover of the project by the United States. If the latter alternative is chosen, the severance damages must be computed and the net reimbursement to the owners must be determined.

In addition to the above, the Commission must act upon a large number of other applications involving amendments, transfer and surrender of licenses and changes in land and water rights of existing projects. Many of these applications include proposed new construction, addition of new capacity, or other major change in project operation. Such applications must, consequently, receive the same reviews, analyses and environmental consideration as would an application for license.

The above constitutes a major workload in terms of assuring conformance with the basic plans for optimum utilization of the water resources, the review of engineering and economic detail, safety determinations, and impacts at the local, state, and Federal levels.

In addition, environmental considerations and measures to protect and enhance natural resources have assumed increased importance in recent years.

Project Environment and Conservation

Licensed project lands and waters provide a tremendous potential for recreational use and development, including fishing and hunting. This is illustrated by the Commission's 1969 inventory of these resources (Form 80) which showed that 555 project-developments under license had a combined water surface area of 1,934,650 acres with a total shoreline of 22,100 miles. Recreation facilities included: 5,830 access areas; 2,264 boat ramps; 1,134 bathing areas; 1,349 picnic areas; and 971 camping areas. Commission regulations provide for evaluation of each applicant's and licensee's plans for development of recreation (Exhibit R); for fish and wildlife preservation and development (Exhibit S); and for the protection and enhancement of the natural, historic and scenic values and resources of the project (Exhibit V); consistent with the public interest and the requirements of the Federal Power Act. Commission regulations issued pursuant to the National Environmental Policy Act of 1969 require the filing of a detailed environmental report (Exhibit W) with most applications for license or amendment of license.

WORKLOAD

<u>Project Environment and Conservation</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
On hand July 1	341	483	447
Received	530	458	458
Total Workload	871	941	905
Completed	388	494	435
On hand June 30	483	447	470

We are attempting to reduce the existing backlog of pending applications, while keeping up with the augmented workload occasioned by regulations pertaining to environmental matters at licensed projects, which includes requirements for preparing staff draft and final environmental impact statements. The Greene County Decision (455 F. 2d 412) and the Commission's subsequent adoption of Order No. 415-C is estimated to have more than doubled the amount of staff work required to process an application for license. In addition, an increasing number of requests are being received for Commission approval of the use of licensed project reservoirs and lands for non-project purposes. Each of these requests, if considered in isolation, might not cause significant effects on the human environment. The cumulative effects of many requests involving the same reservoir could, however, cause significant environmental effects. It is necessary, therefore, in order to comply with the requirements of the National Environmental Policy Act of 1969, for staff to make in-depth analyses of not only the immediate action proposed but of all probable future actions of similar nature that could have cumulative effects. Large reservoirs, such as many of those under FPC licenses, attract housing developments, motels, and other commercial developments around their perimeters. The cumulative effects of such developments on the reservoir and adjoining project lands including discharges of sewage effluents into the reservoir, must be evaluated, and necessary controls must be imposed to ensure that public use of project lands and waters will not be seriously impaired.

D. ACCOUNTING SURVEILLANCE

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	8	8	8	0

Detailed accounting analysis of the original plant cost (including depreciation) is made of licensed projects from the licensee's statement of "Actual Legitimate Original Cost." Subsequent detailed accounting reviews are made of additions, retirements, and depreciation over the license period. Field work is necessary to comply with Section 4(b), Part 1 of the Federal Power Act and to help determine the basic figures for relicensing or recapture.

WORKLOAD

<u>Audits Completed</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
	17	17	17

The Division of Audits' goal is the completion of audits of 17 licensees in 1974 and 1975. The above level of audits is necessary to maintain an audit cycle of approximately 5 years.

E. PROJECT INSPECTION AND SUPERVISION

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	30	30	31	+ 1

Inspection and supervision of licensed projects by technically trained personnel are required to ensure that projects are constructed, maintained, and operated in accordance with approved plans, license conditions, and sound engineering practice. Project safety is a paramount consideration. Many projects have large reservoirs and failure could cause loss of life and widespread destruction of property. Inspections are also made to ensure that adequate provisions are made for the safety and comfort of the recreational users of the project.

Monthly inspections are made of projects under construction, while operating projects are inspected annually. Also, pre-licensing inspections are made of constructed developments for which licensed applications are pending.

The number of inspections required will increase steadily as new plants are constructed and as licenses are issued for existing projects.

Most of the new projects are pumped-storage developments with the upper of two reservoirs constructed at high elevations. The complex technical problems associated with these facilities require more staff surveillance and attention. For example, the \$500 million Cornwall Project on the Hudson River is scheduled to be under construction in 1975. Projects of this magnitude require the attention of a full-time inspector, and we are requesting one additional position for this purpose.

WORKLOAD

<u>Inspections</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
	866	975	1,030

F. FORMAL PROCEEDINGS, RULEMAKING AND LITIGATION

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	22	24	25	+ 1

License applications for proposed and constructed projects often proceed to formal hearings and court litigation. The probability that hearings and litigation will follow the initial processing is increasing. The Commission's responsibility to "assure an abundant supply of electric energy throughout the United States with the greatest possible economy and with regard to the proper

utilization and conservation of natural resources" has been additionally expanded by Congressional action and increased public interest to require litigated inquiry into ecology, water quality and esthetics as well as recreation, fish and wildlife resources, and coordinated planning and operation of hydroelectric projects. Many proceedings involve direct participation by other Federal agencies, State agencies, independent private parties, and consumer and wildlife groups.

In these proceedings, the staff is required to prepare technical exhibits, prepare written testimony and to assist staff counsel in his examination and cross-examination of witnesses. The Commission's regulations require that staff's final environmental impact statement be placed in evidence at the hearing, and staff is subject to cross examination on the statement. Staff counsel works closely with technical advisors, and prepares briefs in support of staff position. Where a decision is issued by a presiding Administrative Law Judge, the staff prepares exceptions or opposes exceptions of other parties thereto, presents oral argument before the judge or the Commission when required, and in the event review is sought in the courts, represents the Commission in those proceedings. The augmented interest in these licensing proceedings has resulted in greater participation of parties and hence in greater complexity of issues to be considered and resolved.

An important hearing that is underway in Fiscal Year 1974 involves the location of a transmission line from the Blenheim Gilboa pumped storage project in New York. Also underway are two hearings involving applications for relicensing projects wherein portions of the projects occupy Indian lands and recommendations for Federal takeover have been made. Two other important hearings that will get underway in Fiscal Year 1974 involve an application for license for the proposed Davis pumped storage project in West Virginia, projected to have an installed capacity of one million kilowatts and the proposed enlargement of Ross dam of the Skagit River Project in Washington.

Hearings are anticipated beginning in Fiscal year 1974 and continuing through Fiscal Year 1975 with regard to other proposed projects and projects subject to relicensing or Federal takeover. Hearings are also anticipated because of alleged violation of license conditions or complaints relating to conservation of fish and wildlife, minimum flows, and other requirements. Commission decisions must consider all social and economic effects and be supported by documented staff analyses.

In several current proceedings, use is being made of the expertise, laboratories, and other facilities of other agencies to develop ecological and environmental effects studies. Such studies can require appreciable effort and expense.

WORKLOAD

<u>Formal Proceedings</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
On hand July 1	9	11	20
Initiated	3	13	11
Total Caseload	12	24	31
Completed	1	4	7
On hand June 30	11	20	24

II. ELECTRIC POWER INDUSTRY SYSTEMS EVALUATION

Comparative Summary of Activity

	<u>1973</u> <u>Actual</u>	<u>1974</u> <u>Estimate</u>	<u>1975</u> <u>Estimate</u>	<u>Change</u> <u>from 1974</u>
A. <u>System Analysis and Evaluation</u>				
Positions	41	41	41	-
Costs	\$ 698,867	\$ 887,000	\$ 981,000	+\$ 94,000
B. <u>Reliability Analysis</u>				
Positions	54	55	57	+ 2
Costs	960,243	1,277,000	1,388,000	+ 111,000
C. <u>Environmental and Fuel Analysis</u>				
Positions	20	21	23	+ 2
Costs	462,823	549,000	620,000	+ 71,000
D. <u>National Power Surveys</u>				
Positions	17	17	17	-
Costs	<u>253,964</u>	<u>380,000</u>	<u>449,000</u>	<u>+ 69,000</u>
<u>TOTAL ELECTRIC POWER INDUSTRY SYSTEMS EVALUATION</u>				
Positions	132	134	138	+ 4
Costs	<u>\$2,375,897</u>	<u>\$3,093,000</u>	<u>\$3,438,000</u>	<u>+\$345,000</u>

II. ELECTRIC POWER INDUSTRY SYSTEMS EVALUATION

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	132	134	138	+ 4

The Federal Power Act directs the Federal Power Commission to gather information on all aspects of the electric power industry and on the relation of such facts to the development of navigation, industry, commerce, and the national defense. The results of investigations are to be reported to the Congress, including recommendations for legislation. A key consideration in such investigations and recommendations is the concern expressed in the Act for "assuring an abundant supply of electric energy throughout the United States with the greatest possible economy and with regard to the proper utilization and conservation of natural resources."

Through the Electric Power Industry Systems Evaluation Program, the Commission monitors the performance, problems and trends of the industry as they relate to national goals, both in the short term and the longer term. Detailed analyses are made of regional electric power supply adequacy, considering projected loads, available capacity, anticipated schedules for completion of new facilities, system interconnections and other factors. Factors involved in regional electric power reliability are analyzed with the help of industry reports on service interruptions, plans for coordination, emergency plans, regional facility additions, and delays in construction. Problems of fuel supply and air and water environmental impacts are examined to identify potential conflicts between energy needs and environmental regulations and to develop plans for their resolution. Broad power surveys are conducted to maintain a balanced overview of the patterns of industry development and changes which can serve as a valid basis for Commission policies and actions and its recommendations to the Congress.

A. SYSTEMS ANALYSIS AND EVALUATION

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	41	41	41	0

This activity includes short-term predictions of power system loads and associated analyses of bulk power system capabilities; semi-annual analysis of the Nation's power system load-supply conditions; analyses of utility fuel reports including special studies of fuel problems involved in mining and transportation stoppages, studies of industry structure, analyses of price elasticity of electricity demand, and merger guidelines for electric utilities; investigations to determine the adequacy of markets for and the value of power from hydro-electric projects; and analysis of reports and preparation of analytical data for annual or other periodic supplements to Commission publications; the analysis of historical data and current industry information, development of trends, projection of future development patterns and cost information; and preparation of reports used to support other programs of the Commission.

B. RELIABILITY ANALYSIS

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	54	55	57	+ 2

The Federal Power Commission's Power Supply and Reliability functions have been of increasing importance over the past fiscal year, and it is expected that these functions will continue to grow in importance as the energy shortage becomes more acute. Recently the Commission has undertaken the task of evaluating the effect of State and Federal environmental control regulation on system reliability. This program is being carried forward in conjunction with the National Electric Reliability Council, other Federal agencies, and officials of the State governments who are responsible for air quality and utility regulation.

The Commission staff also is supplying witnesses to testify in other Federal agency hearings (particularly, the Atomic Energy Commission) as to the effect on system reliability of the failure to bring into timely operation various nuclear facilities.

The Commission staff has actively participated in the work of Committees and Boards in pursuing specific problems of fuel shortages during the past year in addition to their longer-range activities related to future energy needs and the development of recommendations concerning national energy policy considerations. The increasing shortages of fuel oil and natural gas will require that this work be carried forward in fiscal years 1974 and 1975.

The contiguous 48 states are now covered by nine regional councils and the National Electric Reliability Council, which includes representatives from the nine organizations. The Federal Power Commission and State regulatory commissions participate on a non-voting basis in the work of the councils which requires a significant amount of staff time. A tenth Regional Reliability Council has been established in Alaska.

The Commission periodically confers with groups of State utility commissioners from each reliability council region; as a result, seven regional Federal-State regulatory agency staff coordinating groups have been established to work with the reliability councils to assess the reasonableness and validity of the load-facility objectives and to assist in their implementation.

The Commission envisions a significant expansion in cooperative efforts with the various State utility commissions on matters concerning certification of generating plants and transmission facilities. Public concern about esthetics, pollution, infringement on individual rights, etc., has produced many more problems than were experienced prior to the last several years. The Commission is concerned with stimulating effective programs of cooperation and participation to deal with these problems as they affect the electric power industry.

Power pools and similar but less formal coordinating groups are instruments by which individual utilities seek to achieve the reliability, economies and other advantages of much larger systems while retaining their separate corporate identities. Many medium and small systems as well as larger systems, are members of power pools and thereby participate in area coordination.

Studies will be carried forward during fiscal years 1974 and 1975 to show, by detailed comparison of benefits and costs, the gains that can be realized by interconnection and coordination of power facilities. Each of the proposals to do so will require staff analysis of the effects of coordination on each of the systems involved.

The Commission has undertaken a comprehensive study of power system design and operation from the standpoint of bulk power supply reliability. It has encouraged the adoption of programs of improved cooperation and coordination between interconnected utilities and procedures and standards by individual utilities which would lessen the likelihood of widespread power failures. Efforts are being made to coordinate the actions of the Commission with the State utility commissions to develop load relief and load curtailment programs by electric utility systems for mutual assistance in times of emergency. Considerable amounts of staff time are required in efforts directed to problems of this type and in field investigations of significant power failures and system reliability problems.

The Commission has undertaken an investigation of conditions involving the availability and distribution of petroleum and natural gas to the electric power industry. The Commission is also participating with other general agencies in the allocation of petroleum supplies.

C. ENVIRONMENTAL AND FUEL ANALYSIS

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	20	21	23	+ 2

The environmental and fuel analyses activity involves studies, reports, and associated activities related to the Commission's policies and practices having to do with power plant fuels and fuel problems and the impact of generating plants and other electric facilities on the environment. The fuel matters involve sources of supply, transport, stockpiles, quality and cost aspects and similar considerations. The environmental programs are concerned principally with air and water quality effects of steam-electric plants, but also involve environmental impacts of other electric system facilities such as esthetic effects of transmission line installations, investigations of environmental control regulations on electric utility fuel supplies and other aspects of generating plant operation.

Beginning in FY 1971, the Commission utilized and will continue to utilize FPC Form 67 to obtain industry information on fuels used by about 800 electric utility generating plants. The information serves needs of both the Commission and the Environmental Protection Agency as to the disclosure of sulfur, ash and moisture content of fuels, technical and cost data on flue gas cleaning equipment, sources of cooling water, types of cooling equipment, temperature changes in cooling water, water pollution control operations, and other information useful in the development of rational pollution abatement programs. Additional data on fuel quality and cost are obtained through reports utilizing FPC Form 423. These data are of interest not only to the FPC but to the Environmental Protection Agency and offices concerned with emergency planning and energy policy.

The water quality studies involve various types of cooling systems and water requirements; projections of cooling water requirements and plant siting problems related to cooling water requirements; costs of different types of cooling systems; research and development programs related to dissipation of waste heat from thermal power plants; analysis of water quality monitoring systems; and the evaluation of technical methods for determining the effects of power facilities on freshwater, ocean, estuarine and marshland ecosystems.

Studies are conducted to define and correlate the inter-relationships of regional electric power requirements and various environmental factors. The results are intended to lead to guidelines and policies for siting power facilities such that energy and environmental values will be acceptably balanced.

D. NATIONAL AND ALASKA POWER SURVEYS

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	17	17	17	0

The major power survey activity of the Commission is the National Power Survey, a continuing Commission effort to provide projections of the possible patterns of industry development over the next twenty years. The Survey considers the present characteristics of the industry, the various forces for change acting upon it, the technical options available or likely to be available in equipment, operations, fuel and other factors, and the effect of the options on cost, reliability, environmental impacts, use of energy resources and other qualities of national significance in the use of electric energy. Information developed by the National Power Survey contributes to the effective discharge of Commission responsibilities to promote and encourage the economy, adequacy and reliability of electric power, to effect efficient utilization and conservation of natural resources, to encourage the voluntary interconnection and coordination of electric utilities throughout the United States, and to inform the Congress, industry and the public of these matters.

The Commission believes that the studies requisite to the continuing survey will be of special value in assessing the major tasks of the power industry and how they should be met now and in the future. In addition to the end product reports, much benefit is expected to accrue, as it already has, from the cooperative association among the members of Advisory Committees and others in the industry assisting them, and with the Commission and members of its staff.

The continuing National Power Survey will be directed to the major issues of the national power situation as identified in the report published in April 1972 and to other timely problems as they develop and affect the utility and public interests.

The current National Power Survey effort is composed of two major phases: (a) the work of the Technical Advisory Committees (all of whose meetings are open to the public) culminating in reports to the Commission with identification of key issues and recommendations for dealing with them, and (b) the work of the Commission's Power

Survey staff in separate analyses of problem areas, in evaluating the reports submitted by the Technical Advisory Committees and in preparing the Commission's own reports and recommendations.

The following Technical Advisory Committees will address the major policy issues relative to the electric utility industry and its regulation:

- Technical Advisory Committee on Power Supply
- Technical Advisory Committee on Fuels
- Technical Advisory Committee on Finance
- Technical Advisory Committee on Research and Development
- Technical Advisory Committee on Conservation of Energy
- Technical Advisory Committee on the Impact of Inadequate Electric Power Supply

During FY 1973 a large part of the staff effort has been in support of the five current Technical Advisory Committees and their 15 subordinate Task Forces. A considerable staff effort in support of the existing Technical Advisory Committees will continue through the first half of FY 1974, as the committees develop their final reports. Simultaneously, staff effort will be increasing on the Commission's own analyses, with reports scheduled for the first half of FY 1975. It is expected that new Technical Advisory Committees may be appointed from time to time to deal with additional topics the Commission finds to be significant to the Nation's future electric power supply.

Power Survey work also involves other projects of a less comprehensive scope and nature such as the Alaska Power Survey. Work is under way and a major updating of the Alaska Survey is scheduled for completion during FY 1974. The discoveries of major gas and oil deposits in the Prudhoe Bay area and the plans to develop these resources will have pronounced effects on electric power system developments in Alaska. The updating of the Alaska Survey will analyze the impact of such developments and suggest possible patterns for electric system development in that area. Most of the updating work is expected to be done by the Commission's staff in cooperation with advisory groups.

The advisory groups currently established for the Alaska Power Survey are the following:

- Executive Advisory Committee
- Technical Advisory Committee on Economic Analysis and Load Projections
- Technical Advisory Committee on Resources and Electric Power Generation
- Technical Advisory Committee on Coordinated System Development and Interconnection
- Technical Advisory Committee on Environmental Considerations and Consumer Affairs

The membership of these advisory groups includes representatives of privately owned (1 person), publicly owned (3 persons), and cooperatively owned (9 persons) utilities, state and federal government (6 and 10 persons respectively), the University of Alaska (2 persons), and other citizen interest groups (3 persons).

III. ELECTRIC POWER UTILITIES REGULATION

Comparative Summary of Activity

	<u>1973</u> <u>Actual</u>	<u>1974</u> <u>Estimate</u>	<u>1975</u> <u>Estimate</u>	<u>Change</u> <u>from 1974</u>
<u>A. Electric Power Utility Rate Surveillance</u>				
Positions	9	9	9	-
Costs	\$ 169,611	\$ 200,000	\$ 222,000	+\$ 22,000
<u>B. Accounting Surveillance</u>				
Positions	55	55	55	-
Costs	1,269,373	1,451,000	1,585,000	+ 134,000
<u>C. Rate Filing and Corporate Application Analysis</u>				
Positions	44	43	44	+ 1
Costs	966,468	1,114,000	1,234,000	+ 120,000
<u>D. Formal Proceedings, Rulemaking and Litigation</u>				
Positions	39	47	52	+ 5
Costs	<u>600,227</u>	<u>768,000</u>	<u>950,000</u>	<u>+ 182,000</u>
<u>TOTAL ELECTRIC POWER UTILITIES REGULATION</u>				
Positions	147	154	160	+ 6
Costs	<u>\$3,005,679</u>	<u>\$3,533,000</u>	<u>\$3,991,000</u>	<u>+\$458,000</u>

III. ELECTRIC POWER UTILITIES REGULATION

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	147	154	160	+ 6

Each year consumers use more and more electricity and each year the electric industry must expand its facilities to meet the growing demand. This expansion - an average annual rate of about seven percent - is transpiring in an industry which, in terms of investment in physical facilities, is already the Nation's largest. The fact that the expansion is taking place in a period of rising prices and increased public concern with environmental and service reliability considerations puts considerable upward pressure on rate levels.

In order to meet the growing demand for electricity, the industry has accelerated a trend toward more extensive interconnection and coordination of facilities. This not only enhances reliability of service but it also enables the industry to realize, and pass on to consumers, the benefits and economies of diversity and large-scale production. System planning and operation has changed from an individual company orientation to a coordinated inter-utility and inter-pool framework. The volume and complexity of agreements and rate schedules reflecting these changes are in turn increasing the Commission's regulatory burden.

The Commission has the sensitive and difficult task of assuring that the interstate wholesale electric energy provided by the industry is offered at rates and under conditions that are fair and equitable to both buyers and sellers. Over the past several years, the Commission has carried out this task through three basic procedures: (1) surveillance of industry practices and services; (2) analysis of industry rate filings and other regulated corporate transactions; and (3) legal proceedings where necessary to ensure that all factors in disputed matters are thoroughly investigated before a Commission decision is made.

A. ELECTRIC POWER UTILITY RATE SURVEILLANCE

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	9	9	9	0

The Federal Power Act requires that all interstate wholesale transactions and related contracts be just, reasonable, fair and nondiscriminatory. The Commission conducts a rate investigation program based on continual surveillance of the wholesale rate structure of electric utilities. Investigations are of several types: cost of service studies, post-filing investigations, and utility performance and inter-system planning and operation studies.

The factors which determine a utility's cost of providing service are complex and the components thereof are subject to constant

change. The Commission staff analyzes those factors, reviews their cost, and relates the cost to the revenues produced by the utility's rate structure to determine if changes in rate level or rate structure are warranted. The cost of providing electricity varies significantly from utility to utility. To assure that individual utility rates are just and reasonable, it is necessary to examine the utilities' costs on an individual basis rather than collectively. Many of the forthcoming investigations will be detailed and complex cost of service studies to ascertain the effects of the rising cost of money, and other inflationary pressures, on the overall cost of providing service. The present trend toward an increasing number of interconnection and coordination arrangements will also dictate that more staff time be devoted to analyses of coordinated operations.

There are a variety of terms and conditions in rate schedules in addition to the specific rates for kilowatts and kilowatt-hours. An example of such a provision is fuel adjustment clause which increases or decreases the charge for electricity to reflect changes in the price of fuel. Unless such clauses reflect current prices and current operating conditions, they may result in improper charges to consumers. Provisions of this nature are the subject of post-filing investigations.

In addition to inflationary pressures and escalating fuel costs, a utility's high rates may result from excessive earnings or from abnormally high capital or operating costs. Through an analysis of system operation and planning, the Commission may suggest specific remedial measures for reducing such costs including the possibility of further coordination with adjoining systems.

Our goal is to continue the several types of rate surveillance activities to the extent permitted by an increasingly heavy influx of wholesale electric rate increase filings. Each of these requires the staff to prepare a preliminary cost of service analysis so that the Commission can be advised whether the proposed increase is reasonable and should be accepted, or whether it appears to be excessive and should be suspended and a formal hearing initiated.

B. ACCOUNTING SURVEILLANCE

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	55	55	55	0

This program involves the maintenance and surveillance of uniform accounting and reporting requirements. The main objective of the program is to assure that reliable, up-to-date financial and operating data are available for the regulatory functions of the Commission by ensuring that the books and records are in conformance with the Uniform System of Accounts. Special subject reviews are also done. The purpose of these reviews is to develop across-the-board information of pertinence to the Commission in its decision making processes and to determine the effectiveness of the implementation of Commission policies and regulations.

Site audits of company records are made to determine compliance with the Uniform System of Accounts and to assure that financial reports filed with the Commission are supported by these records. During 1974 and 1975 we plan to perform about 37 and 39 audits, respectively.

There is a continuous program of updating and interpreting the Commission's Uniform System of Accounts for Public Utilities and Licensees which has been prescribed for electric utilities and licensed projects. Work is also generated by specific requests from industry, the Commission and others. In addition, the reporting requirements of the Commission are constantly undergoing analysis for possible revision and modernization for better and more efficient reporting and better usage of data by the Commission. Extensive analysis and research work is necessary.

Selective reviews are made of accounting, financial and statistical data in annual reports filed by 213 electric utilities. If system-wide deficiencies are uncovered, remedial action is taken on an industry-wide basis.

In addition, financial reviews are planned so that the Commission can maintain a continuing surveillance of the company's working capital position and its source and use of funds. The purpose of these reviews is to alert the Commission to potential financial problems.

The implementation of the Regulatory Information System will permit us to carry out our accounting surveillance responsibilities with greater efficiency and dispatch.

To perform our surveillance responsibilities effectively, we must keep abreast with the thinking in the ever-changing accounting world. The recent inauguration of a full-time Financial Accounting Standards Board to replace the part-time board is expected to result in many more accounting pronouncements for the accounting profession than in the past. Pronouncements of the new Board must be considered in detail for applicability to our regulatory accounting requirements. The constantly increasing number of changes creates a situation whereby to convert and implement new generally accepted accounting principles into proper accounting instructions for the regulated industry, more and more man hours must be spent on coordination, administrative requirements of rulemaking and final preparation of Commission Orders.

With the ever-changing climate in the socio-political-tax legislation area it is essential that we remain abreast of current tax legislation, maintain liaison with the Internal Revenue Service, prepare tax impact studies, and assist in preparation of tax rulemaking and related implementing orders.

Even with the increasing complexities of our work, the heavy demands on staff time for training purposes during the implementation stages of the Regulatory Information System, the many inevitable difficulties and tribulations inherent in the conversion process, and the need for careful audit of input data to the system, we believe that with careful planning and maximum utilization of manpower, we can carry out our accounting surveillance activities without an increase in accounting positions.

<u>WORKLOADS</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
Audit of Company Records	36	37	39
Uniform Accounting Projects	259	280	280
Financial Review of Reports	213	213	213
Systems Review Reports	213	213	213

C. RATE FILING AND CORPORATE APPLICATIONS ANALYSIS

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	44	43	44	+ 1

Public utilities are required by the Federal Power Act to file all rates and charges for any transmission or sale of electric energy subject to Commission jurisdiction. The control of electric rates, through the filing procedure, is the Commission's most direct means of regulating the sale for resale of interstate electric power. In addition to action resulting from analyses of filed rate schedules, the knowledge that rate schedules and service agreements are subject to Commission review acts as a stimulus to maintenance of appropriate rate levels and the elimination of unjust or unreasonable terms and conditions.

Although most rate schedule filings relate to sales of electric energy at wholesale by large electric utility companies, to all-requirements distribution systems, an increasing number of rate filings consist of agreements covering coordinated operations among large utilities. The increasing number of interconnection and coordination arrangements reflects realization by the utilities that maximum engineering and economic benefits result from such operations. Pool operations facilitate the planning and installation of generating units and transmission capacity on a one-system basis. Inter-connection agreements that are somewhat less broad in scope provide for mutual obligations and responsibilities of the parties for the purpose of obtaining maximum operating benefits. In connection with both kinds of agreements, the staff reviews and analyzes the agreements to determine whether they are sufficiently definite to provide sound working arrangements, yet sufficiently flexible to meet changing conditions, and that there is sound and equitable sharing of the costs and benefits of such services.

The Commission anticipates a continuing increase in complex, coordination arrangements among large utilities and more of the Commission staff's time is expected to be devoted to such filings. For the five year period ending with Fiscal Year 1970, rate schedule reductions aggregating nearly \$28 million were accepted for filing - a period in which the cost-of-living index increased by approximately 25 percent. Beginning in the latter part of FY 1970, however, and continuing through FY 1973, the rising cost of money, fuel, labor, and equipment for system expansion as well as other cost increases have halted what was a declining overall unit cost of electricity. Unit costs are on the increase. Rate reductions accepted for filing in FY 1973 totaled about \$270,000 while rate increases suspended amounted to about \$63 million with another \$16 million in rate increases accepted for filing.

In FY 1973 we received nearly 3,200 electric rate filings, a substantial increase over the 2,000 electric rate filings received in FY 1972. Work was completed on about 3,100 of the filings thereby increasing our backlog by approximately 100 filings. It is anticipated that we will receive approximately 3,100 filings in FY 1974 and 3,200 in FY 1975. The workload for this program is not subject to control by the Commission; by statute, filings of changes in most rate schedules must be reviewed, analyzed, and processed within 30 days.

The number of proposed rate increases continues to rise. Rate increase filings take considerably more time to process than do other rate schedule filings. When proposed rate increases are submitted for filing, the staff must analyze the filings with a view towards recommending acceptance, rejection, or suspension of the rate increase with possible initiation of full scale formal proceedings. When the proposed increase is for an amount of \$50,000 or more, the utility is required to submit testimony and exhibits which would serve as its case-in-chief in the event the matter is set for hearing. The filing utility must also submit a cost-of-service study involving fifteen supporting statements. All such data must be thoroughly analyzed by staff. In addition, rate increase proposals usually result in interventions and protests submitted by wholesale customers of the filing utilities.

<u>WORKLOAD - Rate Filings</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
On hand July 1	598	704	704
Received	3184	3100	3200
Total Workload	3782	3804	3904
Completed	3078	3100	3100
On hand June 30	704	704	804

Analysis of corporate applications ensures that certain industry transactions which may influence rates, reliability, and adequacy of service are in the public interest. The program consists of reviewing, analyzing, and evaluating certain proposed security issues; leases, mergers, and consolidations; acquisitions and dispositions of property; permits for construction of border facilities; emergency interconnections; and applications to export power from the United States. Each of the elements within this subprogram is specifically required by the Federal Power Act and reflects Congress' intent that precautions be taken against corporate abuses.

The Commission has had occasion to consider a number of merger proposals in the past, and it is anticipated that such proposals will continue to be made in the future at about the same rate. Approval of a merger application is contingent upon an affirmative showing that the merger, in the particular circumstances of the applicant, is consistent with the public interest. It is not a problem that is easily resolved since a great number of factors must be taken into consideration, such as the effect on the applicant's operation costs and rate levels, the contemplated accounting treatment, reasonableness of the purchase price, whether there was coercion into acceptance of the merger, and whether the consolidation will impair effective regulation at the Federal and State levels.

High interest rates have caused many companies to postpone issuing permanent securities and, in lieu thereof, to turn to the device of issuing short-term notes and commercial paper. Since many of the states which regulate the issuance of permanent securities are not authorized to regulate the issuance of short-term notes, utilities whose financing transactions have been previously exempted from Commission regulation are now finding it necessary to apply for FPC approval of their short-term note issuances.

WORKLOAD - Corporate Application Analysis

	<u>1973</u>	<u>1974</u>	<u>1975</u>
On hand July 1	35	33	28
Received	93	100	100
Total Workload	128	133	128
Completed	95	105	105
On hand June 30	33	28	23

D. FORMAL PROCEEDINGS, RULEMAKING AND LITIGATION

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	39	47	52	+ 5

Because of inflationary conditions, the most pressing proceedings, some of which may be expected to develop into formal proceedings, involve proposed rate increases by utilities. Also, as they have in the past, additional formal proceedings are expected to continue involving restrictive contract provisions, inter-connections, power pools, mergers, accounting requirements and other matters affecting the regulation of privately owned electric utilities. Formal proceedings may be the result of complaints, petitions or applications or they may be initiated by the Commission. Not all electric utility cases pass through the hearing and briefing stages. Frequently the parties are able to resolve the issues by way of settlement to the satisfaction of the Commission in the public interest. When this fails, however, full scale hearings become imperative. When such hearings occur, it generally is necessary for the staff to develop a case and present its position before an administrative law judge. Direct testimony must be prepared and submitted for cross examination. Other witnesses must be cross examined, staff briefs must be prepared, briefs of other parties must be analyzed and oral arguments prepared and presented.

During the 1960's, the number of formal cases initiated had averaged about eight per year. However, beginning in FY 1971, the number of proposed electric rate increases submitted to the Commission began to increase at an unprecedented rate. During FY 1971, 53 formal cases were initiated, nearly seven times the earlier average. By increasing the staff through a supplemental budget request, we were able to complete 31 cases, but the backlog nearly doubled leaving 50 formal cases pending at the beginning of FY 1972. The trend which began in the latter part of FY 1970 continued through FY 1973. Forty-five cases were initiated in FY 72 and 56 in FY 1973. These 56 new cases added to the 60 pending at the beginning of the year results in a record workload of over 100 cases for the

current fiscal year. We were able to complete work on 20 cases in FY 1973, but this still leaves a balance of 96 cases on hand at the beginning of FY 1974. This compares with 50 cases on hand at the beginning of FY 1972 and 60 at the beginning of FY 1973. The 96 pending cases include 58 cases proposing rate increases totaling nearly \$121 million. As of the end of FY 1973, there were an additional 10 cases involving proposed increases of more than \$65 million that had been filed, but were still under staff analysis and not yet reported to the Commission. Current trends in the electric power industry indicate that the presently expanded workload level can be expected to continue for several more years.

Antitrust issues are being raised in more and more cases in light of the U.S. Supreme Court's decision in Otter Tail Power Company v. United States and Gulf States Utilities Company v. Federal Commission, et al. It can be anticipated that this issue will continue to be raised so that additional staff effort will have to be devoted to consideration of this matter. The Commission has issued an order concerning future test year data for all rate filings involving increases of more than a million dollars. Companies will be required to file unadjusted cost-of-service data for the most recent twelve consecutive months of actual experience plus estimated cost data for the twelve-month period beginning on the proposed effective date of the rate increase. A proposed rulemaking has been issued in Docket No. R-479 governing fuel cost adjustment clauses. We anticipate that implementation of this rulemaking will involve a large number of filings of new fuel cost adjustment clauses by utilities subject to the Commission's jurisdiction. The initial stages of processing rate applications under these new regulations will put an additional burden on the staff.

WORKLOAD - Electric Utility Cases

	<u>1973</u>	<u>1974</u>	<u>1975</u>
On hand July 1	60	96	106
Initiated	56	45	45
Total Caseload	116	141	151
Completed	20	35	45
On hand June 30	96	106	106

NATURAL GAS PROGRAMS SUMMARY

Program	FY 1973		FY 1974		FY 1975		Change 1974-1975	
	Posi- tions	Amount	Posi- tions	Amount	Posi- tions	Amount	Posi- tions	Amount
Natural Gas Pipeline Regulation	366	\$ 6,575,190	390	\$ 8,747,000	402	\$ 9,839,000	+12	+\$1,092,000
Natural Gas Producers Regulation	192	3,527,214	203	4,164,000	205	4,732,000	+ 2	+ 568,000
Natural Gas Industry Systems Evaluation	31	903,167	13	384,000	13	420,000	-	+ 36,000
Services to Other Agencies and to the Public <u>1/</u>	7	105,152	6	120,000	7	132,000	+ 1	+ 12,000
Total Natural Gas Programs	<u>596</u>	<u>\$11,110,723</u>	<u>612</u>	<u>\$13,415,000</u>	<u>627</u>	<u>\$15,123,000</u>	<u>+15</u>	<u>+\$1,708,000</u>

1/ Includes the Natural Gas Recurring Data Reports program.

IV. NATURAL GAS PIPELINE REGULATION

Comparative Summary of Activity

	<u>1973</u> <u>Actual</u>	<u>1974</u> <u>Estimate</u>	<u>1975</u> <u>Estimate</u>	<u>Change</u> <u>from 1974</u>
<u>A. Rate Investigations and Surveillance</u>				
Positions	9	7	6	- 1
Costs	\$ 184,500	\$ 170,000	\$ 167,000	-\$ 3,000
<u>B. Accounting Surveillance</u>				
Positions	25	25	25	-
Costs	564,003	632,000	698,000	+ 66,000
<u>C. Gas Reserves Analysis</u>				
Positions	16	21	25	+ 4
Costs	257,503	441,000	534,000	+ 93,000
<u>D. Certificate Investigation, Surveillance & Application Analysis</u>				
Positions	122	128	136	+ 8
Costs	1,892,549	2,748,000	3,180,000	+ 432,000
<u>E. Rate Filing Analysis</u>				
Positions	47	47	47	-
Costs	791,999	927,000	1,027,000	+ 100,000
<u>F. Formal Proceedings, Rulemaking and Litigation</u>				
Positions	147	162	163	+ 1
Costs	<u>2,884,636</u>	<u>3,829,000</u>	<u>4,233,000</u>	<u>+ 404,000</u>
<u>TOTAL NATURAL GAS PIPELINE REGULATION</u>				
Positions	366	390	402	+ 12
Costs	<u>\$6,575,190</u>	<u>\$8,747,000</u>	<u>\$9,839,000</u>	<u>+\$1,092,000</u>

IV. NATURAL GAS PIPELINE REGULATION

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	366	390	402	+12

The deterioration of the gas supply situation continues. During 1970 reserves of interstate pipeline companies declined by about 14 trillion cubic feet of natural gas. In 1971 the decline was just over 12 trillion cubic feet. Preliminary analysis of 1972 data indicates a further decline of approximately 12.6 trillion cubic feet by year's end.

These companies are finding it increasingly difficult to meet their normal market requirements. At the same time, demand for clean burning natural gas increases as the concentrated effort to clean up environmental pollution continues to intensify. Natural gas, because of its minimal pollution characteristics, is the premium fuel in the world's battle to clean the environment.

The natural gas situation has increased the Commission's workload. There are more than 43 million natural gas customers in the United States. They are supplied by distributors, many of which receive gas from companies regulated by the Federal Power Commission. New and expanded transmission facilities, certificated by the Commission, are required. Many certificates can only be issued after the preparation of a comprehensive environmental impact statement by the Commission staff. This new requirement is expensive in terms of staff and time.

The premium placed on gas as a pollution-free fuel has resulted in a flood of pipeline rate increase applications. The dollar value of backlogged rate increases has risen steadily and as of the end of FY 1973 amounted to \$271,347,297.

The steady decline in interstate supply has manifested itself in firm service curtailments by interstate pipeline companies to their customers during the past several winter heating seasons. These curtailments have increased from 62 billion cubic feet during the 1970-71 winter season (November-March), to 236 billion cubic feet during the 1971-1972 winter, 419 billion cubic feet during the 1972-1973 winter and an estimated 584 billion cubic feet for the 1973-1974 winter. The projected firm service curtailment during summer is 995 billion cubic feet. Pipeline companies curtail summer deliveries in part in order to fill storage for the following winter season. Pipelines serving primarily the West and Midwest markets have projected curtailments for the 1974 heating season from about 2 to 34 percent. One pipeline serving the Eastern states has projected both summer and winter curtailments of over one-third of requirements.

Major interstate pipeline companies reporting curtailments for the coming year serve almost every region of the country. They are Algonquin Gas Transmission Company, Arkansas Louisiana Gas Company, Cities Service Gas Company, Columbia Gas Transmission Corporation, Consolidated Gas Supply Corporation, Eastern Shore Natural Gas Company, El Paso Natural Gas Company, Mississippi River Transmission Company, Natural Gas Pipeline Company of America, Northern Natural Gas Company, Panhandle Eastern Pipeline Company, Texas Eastern Transmission Corporation, Texas Gas Transmission Corporation, Transcontinental Gas Pipeline Corporation, Transwestern Pipeline Company, Trunkline Gas Company, and United Gas Pipeline Company.

As a result of the curtailments, the Commission has instituted various rulemakings and policies as well as adjudicated cases establishing priorities for the use of natural gas. These priorities are generally described by Commission Rulemaking 467-B, issued March 2, 1973.

On April 15, 1971, the Commission issued Order No. 431 in Docket No. R-418. Among other things, this order required that all pipeline companies faced with a curtailment of firm requirements submit for Commission approval plans for meeting this contingency. As of December 31, 1973, thirty six curtailment filings have been made. In conjunction with the curtailment cases, approximately sixty petitions for extraordinary relief from curtailment have been filed.

The Natural Gas Pipeline Regulation Program focuses on the above problems through the following activities.

A. RATE INVESTIGATION AND SURVEILLANCE

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	9	7	6	- 1

The Commission has the statutory responsibility to investigate any potential or actual violation of the Natural Gas Act.

Because of the tight gas supply situation and its ramifications, these investigations are becoming more comprehensive in scope and in detail, particularly those involving gas curtailments and priority of service.

Annual investigations and surveillance are made of pipeline companies' prepayments and advance payments to producers, penalties charged for unauthorized overrun takes of natural gas and average city gate rates of major metropolitan areas.

WORKLOAD

<u>Investigations</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
On hand July 1	4	3	3
Initiated	7	6	6
Total Workload	11	9	9
Completed	8	6	6
On Hand June 30	3	3	3

B. ACCOUNTING SURVEILLANCE

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	25	25	25	0

Reliable and consistent financial data from the companies regulated are required for regulatory purposes. Through this activity the financial transactions and records of the companies are reviewed, both through data reported by the companies to the Commission, and on-site audits.

These reviews of financial data, in addition to determining compliance with the Uniform System of Accounts, are used also as a basis for refining, improving and clarifying the System of Accounts under which these regulated companies maintain their books and records.

WORKLOAD

<u>Type</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
Audits	13	15	17
Uniform Accounting Projects	163	180	180
Financial Reviews- Reports	108	108	108
Systems Reviews- Reports	216	216	216

C. GAS RESERVE AND DEMAND ANALYSIS

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	16	21	25	+ 4

Natural gas supplies through 1990 will not be sufficient to meet demand. Current projections indicate that the rate of development of our natural gas supplies, both conventional and supplemental, will not provide for the forecasted needs.

Through this program the Commission keeps track of gas reserves and future demand. Basic data for these analyses are obtained from the records of the Commission and from reports filed by natural gas companies, and checked against other estimates, including those of the American Gas Association.

National reserve data published by the Association closely correlate with the trends developed independently by the Commission for reserves dedicated to interstate pipelines.

COMPARISON OF AGA AND FORM 15 DATA
(Contiguous 48 States)
(Volumes in Trillions of Cubic Feet)

	<u>End of Year Reserves</u>		<u>Reserve to Production Ratio</u>		<u>Finding to Production Ratio</u>	
	<u>AGA</u>	<u>Form 15</u>	<u>AGA</u>	<u>Form 15</u>	<u>AGA</u>	<u>Form 15</u>
1963	274.5	188.5	18.9	20.2	1.2	NA
1964	279.4	189.2	18.3	18.9	1.3	1.1
1965	284.5	192.1	17.5	18.5	1.3	1.3
1966	286.4	195.1	16.4	17.5	1.1	1.3
1967	289.3	198.1	15.7	16.8	1.1	1.2
1968	282.1	195.0	14.6	15.5	0.6	0.8
1969	269.9	187.6	13.1	14.0	0.4	0.5
1970	259.6	173.6	11.9	12.3	0.5	0.0
1971	247.4	161.3	11.3	11.4	0.4	0.1
1972	234.6	148.6 P/	10.5	10.5 P/	0.4	0.1 P/

P/Preliminary

The persistent decline in reserves and new findings exacerbates the national energy emergency and affirms the conclusion that we have expressed for over four years that major national actions are required to reverse these trends of diminishing supply.

The monitoring and analysis of the Nation's supply-demand situation is vital to the performance of the Commission's regulatory functions. The Commission's decisions are dependent upon comprehensive, reliable, and up-to-date data on the availability of and the demand for gas.

In addition, data developed by the Commission are provided to other energy agencies such as the Council on Environmental Quality, the Joint Board on Fuel Supply and Fuel Transport, the Environmental Protection Agency, the Atomic Energy Commission, and the Department of the Interior.

WORKLOAD

<u>Studies</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
On hand July 1	11	11	10
Initiated	13	15	15
Total Workload	24	26	25
Completed	13	16	15
On hand June 30	11	10	10

D. CERTIFICATE INVESTIGATIONS, SURVEILLANCE AND APPLICATION ANALYSIS

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	122	128	136	+ 8

Certificate Investigations and Surveillance

The analysis of proved gas reserves committed to service proposed in interstate pipeline applications for certificates of public convenience and necessity is a major function of this activity.

In addition, in-depth gas supply investigations of about six major pipeline companies are scheduled annually, depending on available staff. Through these investigations the proved gas reserves of each of the 24 major companies which collectively own 97 percent of the reserves dedicated for interstate delivery, are thoroughly scrutinized. If the proposed staffing level is achieved, investigations covering all major pipeline companies can be completed every four years.

Compliance with the Commission's certificate orders, filing fee regulations, reports of imports and exports of gas, underground storage of gas, construction costs of facilities and gas supply reports constitute an essential part of this program.

Although information about gas supplies of interstate pipelines has been gathered under current staff programs as indicated above, knowledge about the remaining intrastate and total gas supply has depended almost entirely on outside and industry sources. In addition, the information that was obtained was in summary form and lacking in important details. A new program initiated under the National Gas Survey is a combined field and office study of the individual field and reservoir reserves. A continuation of this project is proposed and will allow the Commission to gain first-hand knowledge at the source of all gas reserve data which will be extremely useful for many Commission and national programs. Implementation of this program on a continuing basis as well as the in-depth investigations will be directly affected by availability of staff.

WORKLOAD

<u>Investigations</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
On hand July 1	13	13	14
Initiated	12	16	17
Total Workload	25	29	31
Completed	12	15	17
On hand June 30	13	14	14

Analysis of Certificate Applications

Commission approval must be obtained to build and operate new facilities or to acquire existing facilities, or to make connections, import and export gas or to abandon facilities.

Some 500 to 600 applications are received each year and the funds involved total in the hundreds of millions of dollars. In FY 1973, for example, the 757 certificates in process during the year represented \$2,834 million, 6140 miles of pipeline, and 595,731 compressor horsepower.

Each application must be analyzed from a financial, engineering, economic and environmental standpoint. Engineering evaluations are made of the application's technical consistency, design, and compliance with the Natural Gas Pipeline Safety Act. Gas supply and market data are reviewed carefully to determine that the supply of gas is adequate and the market demand is sufficient to justify the new facilities. Each project is weighed against its impact on system operations and the rates paid by the pipeline companies' existing customers. As a part of the public convenience and necessity we are reviewing the safety of various LNG and storage and transportation facilities.

WORKLOAD

<u>Applications</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
On hand July 1	251	310	391
Received	506	551	586
Total Workload	757	861	977
Completed	447	470	494
On hand June 30	310	391	483

Environmental Impact

The Federal Power Commission is required by the National Environmental Policy Act of 1969 to prepare an environmental impact statement for each application which constitutes a major Federal action significantly affecting the quality of the human environment. This statement must be prepared and accompany the application through each step of the decision making process.

Prior to the Greene County decision, in which the United States Court of Appeals for the Second Circuit held that the FPC staff must prepare an independent detailed environmental statement, the applicant's environmental statement was circulated by the Commission. The change in procedure has resulted in a major increase in manpower requirements. The circulation of the applicant's statement required the expenditure of only part of a man-year. Preparation of a statement by the Commission staff requires the independent development of data so as to reach independent conclusions. This may require as much as four man-years of effort on major projects.

Approximately 2 percent of the applications for certificates require the preparation of an environmental statement by the Commission staff. Such applications constitute the major projects for natural gas energy systems and the substantial majority of new increments to energy supply.

WORKLOAD

<u>Draft Environmental Impact Statements</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
On Hand July 1	5	13	14
Received	10	14	14
Total Workload	15	27	28
Completed	2	13	14
On hand June 30	13	14	14

On December 18, 1972, the Commission issued Order No. 415-C which set out detailed guidelines for the preparation of environmental reports by the applicant.

E. RATE FILING ANALYSIS

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	47	47	47	0

The 1115 rate matters filed with the Commission last year involved a total of \$867,479,508 annually in rate increases. The rate increase filings must be acted on within 30 days to prevent rates from becoming effective which may not be in the public interest. The balance of the filings were for new service agreements or filings made in compliance with Commission orders directing refunds or rate reductions. While the 30 day deadline is not in effect for these filings, they must be processed promptly so as not to impose a burden on the company and to expedite relief to the consumer.

The analysis of the rate filings is a complex procedure. Rules and regulations governing these filings are extensive. Further, the economic and financial factors involved in each filing differ considerably.

WORKLOAD

<u>Filings</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
On hand July 1	255	244	244
Received	1115	1200	1250
Total Workload	1370	1444	1494
Completed	1126	1200	1250
On hand June 30	244	244	244

F. FORMAL PROCEEDINGS, RULEMAKING AND LITIGATION

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	147	162	163	+ 1

Increasingly, the applications filed with the Commission for certificates of public convenience and necessity or rate changes, or other Commission determinations, are being contested. And because of the energy shortage, the economic factors and the environmental factors are becoming more vital to Commission decision while multiplying the complexity and difficulty of each case. As a result, and despite staff increases, our case workload in recent years has been increasing at a rate faster than they can be disposed of.

The rulemaking activities of the Commission are an important part of an increasingly heavy workload on the Commission. Here, too, the energy shortage, sensitive economic factors, and environmental concerns combine to amplify the detail work, procedures, and investigations required. Many Commission decisions of significance to the energy situation or the environmental problem are challenged by appeal to the courts.

Certificate Matters

During FY 1973 the Commission had a total workload of 87 certificate cases in process. During the year, 43 new cases were started, a 16 percent increase over those started the previous year and a threefold increase over the new cases started in FY 1970.

Environmental protection, anti-trust issues, pipeline sitings, the adequacy of proposed financing, economic feasibility, the adequacy of gas reserves, the end use of natural gas, are some of the issues involved in certificate cases. The shortage of available land is making it more difficult to locate proposed pipeline facilities and air quality standards are increasing the demand for the short supply of presently available gas.

Projects authorized and proposals filed to import liquefied natural gas from Africa, and possibly other continents by cryogenic ships, and to manufacture synthetic gas from coal and other hydrocarbons raise other difficult questions concerning jurisdiction, price, reliability, safety, environmental impact and economic feasibility.

Despite the growing complexity of pipeline certificate matters, the Commission disposed of 30 cases last year.

WORKLOAD

<u>Certificate Cases</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
On hand July 1	44	57	75
Initiated	43	50	50
Total Workload	87	107	125
Completed	30	32	35
On hand June 30	57	75	90

Rate Matters

Concurrently with the increase in certificate workload, our rate case workload is also increasing. The conditions which impact upon the certificate matters are important also to the rate matters. In addition, there are other factors.

Cost of service issues, for example, are complex, particularly those associated with rate increase filings. The appropriate test period volumes based upon curtailments, the realistic net investment rate base, the treatment of advance payments, interest allocation, changes in depreciation rates, cost classification, cost allocation and rate design are all important elements in the Commission's determinations.

In FY 1973 pipelines filed 307 rate increases totaling \$867,479,508. Of these, 42 rate increases totaling \$419,246,158 were suspended. The Commission also initiated several investigations of rate matters on its own motion or on complaint.

At the end of FY 1973, 92 formal rate cases were pending with the Commission involving a total of \$697,215,766. Curtailment cases, petitions for extraordinary relief, abandonments and rulemakings related to supply deficiencies are expected to form an increasing and substantial portion of our workload. As the natural gas shortage deepens, curtailments of essential supply increase. The overall shortage of alternate fuels deliverable to market to displace the unfulfilled demand for natural gas causes the problem of allocating the shortage among various end-users of natural gas according to descending priorities of use values. Despite conservation policies for both production and consumption of natural gas as well as electricity, initiated by the Commission and others, conservation measures by the Departments of Interior and Commerce and the Federal Energy Office, there is a shortage of fuels to meet the energy needs of our society. Allocations must distribute the shortfall evenly so that the burden will be distributed equitably among various classes of consumers and so that our reserves will be efficiently and productively utilized. There were 17 major pipelines with curtailment cases before the Commission for hearing as of June 30, 1973.

WORKLOAD

<u>Rate Matters</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
On hand July 1	106	92	92
Initiated	49	60	65
Total Caseload	155	152	157
Completed	63	60	60
On hand June 30	92	92	97

V. NATURAL GAS PRODUCERS REGULATION

Comparative Summary of Activity

	<u>1973 Actual</u>	<u>1974 Estimate</u>	<u>1975 Estimate</u>	<u>Change from 1974</u>
<u>A. Rate Investigations and Surveillance</u>				
Positions	30	30	29	- 1
Costs	\$ 564,345	\$ 641,000	\$ 709,000	+\$ 68,000
<u>B. Certificate Application Analysis</u>				
Positions	46	52	52	-
Costs	770,398	950,000	1,113,000	+ 163,000
<u>C. Rate Filing Application Analysis</u>				
Positions	53	54	55	+ 1
Costs	945,027	1,095,000	1,233,000	+ 138,000
<u>D. Formal Proceedings, Rulemaking and Litigation</u>				
Positions	63	67	69	+ 2
Costs	<u>1,247,444</u>	<u>1,478,000</u>	<u>1,677,000</u>	<u>+ 199,000</u>
<u>TOTAL NATURAL GAS PRODUCERS REGULATION</u>				
Positions	192	203	205	+ 2
Costs	<u>\$3,527,214</u>	<u>\$4,164,000</u>	<u>\$4,732,000</u>	<u>+\$568,000</u>

V. NATURAL GAS PRODUCERS REGULATION

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	192	203	205	+ 2

The Commission has about 11,500 producer rate schedules on file. Most of these, some 10,000, were filed by the 85 large producers having annual sales in excess of 10,000,000 Mcf. About 37,000 additional parties are involved in these rate schedules as co-owners whose gas is sold under certificates and rate schedules of others.

During calendar year 1972, about 14.1 trillion cubic feet of natural gas was supplied to interstate pipeline companies by domestic producers. The cost of gas purchased by major pipelines from domestic producers in the 12 month period ending November 1973 averaged 22.27 cents per Mcf compared with 20.54 cents per Mcf in the like period ending November 1972. This is an increase of 1.73 cents per Mcf or 8.4 percent.

The complexities associated with the regulation of natural gas producers had prompted innovative approaches over the years. The setting of prices on an area basis rather than a case-by-case basis, the exemption of small producers, optional pricing procedures, and procedures to prescribe uniform national rates by rulemaking are major Commission regulatory responses to the supply shortfall.

These new approaches, established to cut through a massive backlog of cases, or to ameliorate the current energy crisis, are being tested in the courts.

While the Commission has been generally confirmed in its area rate decisions, there is a conflict of circuit courts which will precipitate U.S. Supreme Court review of its area rates. In *Texaco, Inc. v. FPC, D.C. Cor., No. 71-1560, et al.*, the Commission's Orders Nos. 428 and 428-B, exempting small producers from area price ceilings, were set aside. A petition for certiorari was filed with the U.S. Supreme Court on May 3, 1973. Optional pricing is also subject to appellate review. We have an average of about 80 cases pending an appeal in the circuit or supreme courts.

A. RATE INVESTIGATIONS AND SURVEILLANCE

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	30	30	29	- 1

Basic producer data such as expenditures for exploration, development and production, geological and geophysical data, leasing and drilling information, changes in reserves inventory, drilling costs, footage drilled, sales information, and associated data are collected and evaluated in this activity.

During FY 1974 and continuing through FY 1975, much of this data will be collected and monitored with the help of ADP techniques. When fully developed, this automated system will provide the Commission with consistent and current data for use in its regulatory decisions.

In addition to monitoring the industry through this system, the Commission also carries out specific studies or investigations in response to various matters in process within the Commission.

B. CERTIFICATE APPLICATION ANALYSIS

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	46	52	52	0

Natural gas producers are required to obtain authorization for the sale or abandonment of a sale of natural gas in interstate commerce for resale.

Each application is examined for availability of pipeline facilities for transport, conformance to ceiling rates, reasonableness of terms and conditions, corporate relationship between seller and buyer and relationship to other sales from same or adjoining acreage, and other factors.

Under specified conditions certain producers may file under the optional certification procedure which was designed to encourage the drilling for and production of new supplies of gas for use in interstate commerce.

Although workload in this activity remains fairly constant, the substance involved, like other Commission workload, has increased in complexity due to the energy and environmental situation.

WORKLOAD

<u>Applications</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
On hand July 1	1818	2224	2574
Received	2345	2350	2400
Total Workload	4163	4574	4974
Completed	1939	2000	2200
On hand June 30	2224	2574	2774

C. RATE FILING APPLICATIONS

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	53	54	55	+ 1

With the exception of those with small producer certificates, all producers are required to file rate schedules with the Commission detailing the terms, conditions and rates for each of their jurisdictional gas sales. Changes in such schedules cannot be made without prior notice to the Commission and the public.

Rate changes must be acted upon by the Commission within 30 days of the filing.

WORKLOAD

<u>Filings</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
On hand July 1	6114	3233	3233
Received	9765	12000	12000
Total Workload	15879	15233	15233
Completed	12646	12000	12000
On hand June 30	3233	3233	3233

D. FORMAL PROCEEDINGS, RULEMAKING AND LITIGATION

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	63	67	69	+ 2

Despite the crisis in the availability of proven gas reserves and spot shortages of supplies in some sections of the country, the total gas produced approximate 22.5 trillion cubic feet for the year ending 1972. About 14.1 trillion cubic feet was produced and/or purchased from proved and contracted reserves by interstate pipeline companies for sale in interstate commerce and is thus subject to the jurisdiction of the Commission.

Hearings are expected on certain certificate applications filed pursuant to the optional pricing procedure under which approved rates will be firm for the term of the contract and not subject to refund. Commission provisions for special relief from area ceiling rates will generate some proceedings also. These two procedures were established to stimulate domestic exploration for and development of gas reserves, and to encourage the recovery of gas that would otherwise be flared or vented.

A substantial number of hearings are expected under the provision for limited term certificates designed to meet current shortages of gas supply by allowing pipeline companies to purchase gas at above ceiling rates.

At the same time the Commission has several rulemaking proceedings in process. One of these, Docket No. R-389B, involves a just and reasonable national rate for sales of gas from wells commenced on or after January 1, 1973. A companion rulemaking, Docket No. R-478, is concerned with a national rate for sales from wells commenced before January 1, 1973.

Processing of numerous refund reports resulting from the producer rate proceedings continue to comprise an important part of this program.

The intricate relationships involved in the production and sale of natural gas in interstate commerce continue to result in a high number of cases referred to the courts.

VI. NATURAL GAS INDUSTRY SYSTEMS EVALUATION

Comparative Summary of Activity

	<u>1973</u> <u>Actual</u>	<u>1974</u> <u>Estimate</u>	<u>1975</u> <u>Estimate</u>	<u>Change</u> <u>from 1974</u>
<u>A. National Gas Survey</u>				
Positions	31	13	13	-
Costs	<u>\$903,167</u>	<u>\$384,000</u>	<u>\$420,000</u>	<u>+\$36,000</u>
<u>TOTAL NATURAL GAS INDUSTRY SYSTEMS EVALUATION</u>				
Positions	31	13	13	-
Costs	<u>\$903,167</u>	<u>\$384,000</u>	<u>\$420,000</u>	<u>+\$36,000</u>

VI. NATURAL GAS INDUSTRY SYSTEMS EVALUATIONA. NATIONAL GAS SURVEY

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change From 1974</u>
Positions	31	13	13	0

The complex regulatory problems faced by the Commission compel it to look beyond the confines of individual natural gas cases and obtain an overview of the gas industry, including various principal elements such as: Prospective growth of markets; the gas supplies necessary to meet this growth; industry financing, rates and service conditions; imports and exports; means of conserving gas and general operations. Recognizing this need, the Congress in FY 1971 authorized the establishment of the National Gas Survey to meet this requirement.

Today, there are complex relationships among gas and other sources of energy--oil, coal, electricity, and nuclear power. To resolve regulatory issues most effectively requires a meaningful understanding of the position of natural gas in an interrelated energy economy.

Obviously, a detailed knowledge of the natural gas industry, beginning with supply and demand data, is essential if problems of increased energy demands are to be resolved. Questions relating to economies of scale and perplexing problems of supply-price relationships are involved as are the impact of inter-fuel relationships, the effect of import-export policies upon supply, the possible future role of synthetic gases, and a variety of related questions.

Only a few years ago, it was not considered necessary to import substantial quantities of liquefied natural gas or manufactured gas from coal and oil to meet growing demands. Yet, this definitely is the prospect today. At present, we necessarily rely upon existing gas technology and conservation practices as the basis for meeting gas demand in the near term because the supply of liquefied natural gas and substitute natural gas in substantial quantities will not be a reality for at least several years. In the meantime, we rely on liquefied natural gas for some peak-shaving and as a minor supply supplement and synthetic gas plants are being rushed to completion. These sources will not be available in sufficient volumes in the immediate future either to meet incremental demand or even current or contract demand on a national basis and conservation practices also unthought of a few years ago, are given a prominent place in industry planning.

In essence, the Survey's purpose is to obtain an overview of the prospective growth of the gas industry, its markets, gas supplies, facilities, its relation to other fuels and regulatory aspects. The Survey is intended to enhance the Commission's ability to regulate effectively and assist the industry in providing a continuing reliable supply of gas to meet consumer needs. A primary goal is to improve analytical and forecasting techniques so that there can be meaningful regulation, wise management, and prudent resource planning by both industry and government.

The National Gas Survey consists of two parts:

- (1) For Fiscal Year 1975. The major undertaking requiring the majority of the requested positions will be the independent continuing analysis of the Nation's natural gas reserves;

- (2) In-depth examination of policy issues relating to conservation, rate design, Research and Development, financing, import-export policy, supply-demand equilibrium, inter-competitive relationship of substitutable fuels, environmental impact of resource development and utilization, and the evaluation of alternate methods of attainment of capacity for self-sufficiency.

An extensive independent reserves analysis program of natural gas reserves for the year ending 1970 has been completed by the Federal Power Commission staff to provide estimates of proved reserves based on geological and engineering data for a broad sample of the gas fields in the United States. The sample was chosen by means of valid statistical techniques in order to provide the basis for estimates of reserves and to permit sound conclusions to be drawn about the gas reserves of the total population of gas producing fields in the United States. This analysis, conducted through the combined efforts of the Federal Power Commission staff, the United States Geological Survey of the Department of the Interior, the Office of Naval Petroleum and Oil Shale Reserves of the United States Navy, the Office of Management and Budget, the Bureau of the Census, and the regulatory and conservation agencies of the major gas producing states is the first independent government-conducted appraisal of the proved gas reserves in the United States. The United States Geological Survey teams took the responsibility for preparing the estimates of the fields included in the sample which were located on the Outer Continental Shelf.

This reserve evaluation program for the study and analysis of gas supply information has several important features, namely:

- (1) The gas reserves of the fields constituting the sample represented over 50 percent of the Nation's estimated gas reserves.
- (2) The gas reserve estimates for the fields in the sample were made on a reservoir-by-reservoir basis.
- (3) Significant results were obtained for use by the Government and the public.

The gas reserves study indicated a 10 percent lower level of proved reserves than that reported by the American Gas Association at the end of 1970. While this difference is considered to be within the range of reasonableness, the natural gas available in the future from presently proved reserves may be even more limited than has been previously projected. As an essential part of our regulatory responsibilities, we intend to continue our in-depth, independent analyses of natural gas reserves consistent with the demands of public policy for systematic reporting of reserves controlled by jurisdictional natural gas companies. The FPC's analysis of gas reserves will be independent of the National Gas Survey structure to address policy issues relating to the future regulation of the national gas industry.

The National Gas Survey is directed by the FPC. Federal and State agencies, representatives from the gas industry, members from academia, technical societies and associations, public interest parties, (including environmentalists and consumer representatives) and other qualified individuals have participated in preparing reports for use in the Survey. To accomplish the broad objectives of the Survey, various advisory committees were established. An Executive Advisory Committee gave an overall review and a Coordinating Committee helped balance the work of the three Technical Advisory Committees which provided advice and assistance in their respective fields of Supply,

Transmission and Distribution. Under the direction of the Technical Advisory Committees, fourteen Task Forces participated in developing information. Eight consultants also contributed special analyses for the Commission's use in the Survey.

All final reports of the Advisory Committees and Task Forces were completed and made available to the public by July 1, 1973. Most of the consultant reports were also available by the end of the fiscal year. Publication of all of these reports is being undertaken by the Government Printing Office.

The Commission will issue its report in fiscal year 1974; this report will be based on the information and data contained in the Technical Advisory Committee Task Force reports and will make public the Commission's analyses, interpretations, conclusions and recommendations for future courses of action. It is planned that this report will be published after advisory committee, Task Force and consultant reports.

Continuing studies of technological developments affecting the industry, the role of natural gas in the changing energy market place, and the evaluation of the gas industry to meet the needs of gas consumers and the general public will continue to be primary areas of concern and further analysis.

As the basic work objectives of the Survey are carried out, a parallel effort to develop a comprehensive statistics and information program will be conducted. This will be accomplished by designing and developing system analysis tools that will facilitate the Federal Power Commission's analysis of existing situations and the evaluation of possible solutions to problems as they are identified.

The survey will give the Commission, the Congress, Federal and state agencies, the public, and the industry an assessment of the natural gas industry that cannot be obtained from the mass of unevaluated statistics now available. The study will concentrate on these major policy issues relating to the national objective to attain a capacity for self-sufficiency during the decade of 1980's:

- (1) Natural gas supply-demand equilibrium in relation to a competitive inter-fuel economy;
- (2) Conservation in production, transmission and conservation of natural gas and substitutable fuels;
- (3) Priorities of allocation by end-use in relation to impact upon our national and regional economy, environmental objectives and social goals;
- (4) Assessment of national security and international relations in relation to magnitude of projected imports;
- (5) Research and development strategy by Government and private industry for natural gas, substitutable fuels, and new energy forms; and
- (6) Financial requirements.

The impact of future technological changes will be carefully weighed. The Survey should provide a rational overview of the natural gas industry and its probable future course as a basis for effective energy policy action and decision making.

VII. SERVICES TO OTHER AGENCIES AND PUBLIC

Comparative Summary of Activity

	<u>1973</u> <u>Actual</u>	<u>1974</u> <u>Estimate</u>	<u>1975</u> <u>Estimate</u>	<u>Change</u> <u>from 1974</u>
A. <u>Review of Proposed Federal Hydro Projects, Rates & Cost Allocation</u>				
Positions	19	19	19	-
Costs	\$ 312,019	\$ 407,000	\$ 450,000	+\$ 43,000
B. <u>Headwater Benefits Determinations</u>				
Positions	10	10	10	-
Costs	200,535	220,000	243,000	+ 23,000
C. <u>Joint Water Resources Studies</u>				
Positions	14	14	14	-
Costs	313,564	341,000	376,000	+ 35,000
D. <u>Hydro and Electric Utilities Recurring Data Reports</u>				
Positions	43	39	38	- 1
Costs	752,041	768,000	830,000	+ 62,000
E. <u>Natural Gas Recurring Data Reports</u>				
Positions	7	6	7	+ 1
Costs	<u>105,152</u>	<u>120,000</u>	<u>132,000</u>	<u>+ 12,000</u>
<u>TOTAL SERVICES TO OTHER AGENCIES AND PUBLIC</u>				
Positions	93	88	88	-
Costs	<u>\$1,683,311</u>	<u>\$1,856,000</u>	<u>\$2,031,000</u>	<u>+\$175,000</u>

VII. SERVICES TO OTHER AGENCIES AND PUBLIC

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change</u> <u>from 1974</u>
Positions	93	88	88	0

The Commission provides advice, assistance, and information on electric power and natural gas matters through a number of different programs. For many years, it has served as a repository for industry data. It serves as consultant to other agencies which plan and construct water resources projects, comments upon project plans, approves rate schedules established by certain Federal marketing agencies, and performs cost allocations for a number of Federal multiple-purpose projects.

The Commission determines the payments due for benefits from Federal or licensed headwater improvements. The Commission plays another major role in national water resources planning through its membership in the Water Resources Council and representation on river basin commissions and Federal-State coordinating committees.

A. REVIEW OF PROPOSED FEDERAL HYDROELECTRIC PROJECTS, RATES AND COST ALLOCATIONS

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change</u> <u>from 1974</u>
Positions	19	19	19	0

The Federal Power Act, the various Flood Control and River and Harbor Acts, and other statutes authorize or direct the Commission (1) to provide advice and assistance on electric power matters to other Federal agencies which are planning or constructing water resources projects; (2) to confirm and approve rate schedules proposed by the Department of the Interior for electric power produced at certain Federally owned projects; and (3) to perform or verify the allocation of costs of a number of Federal multiple-purpose water resource projects.

The Commission has expertise in electric power matters which enables it to provide assistance to the Federal construction agencies so as to assure that the power potential of projects is developed or safeguarded. As current Federal-State comprehensive planning programs are completed, the Federal construction agencies prepare detailed feasibility, implementation, and environmental impact studies and reports for those projects proposed for Federal construction in the next 10 to 15 years. These studies require increasing participation by the Commission staff and a large number of cooperative studies are expected to be required each year. Formal comments to other Federal agencies on survey reports, design memoranda, proposed wilderness areas, proposed additions to the national wild and scenic rivers system, comprehensive river basin planning studies, and environmental impact statements, are expected to be made on 70 reports in each of fiscal years 1974 and 1975.

As marketing agent for Federally generated electric power, the Department of the Interior is expected to submit 4 requests for approval of rate schedules in each of fiscal year 1974 and 1975. Rate proposals for the Bonneville Power Administration system and for the Southwestern Power Administration system will be included in the fiscal

year 1974 requests. The Commission's principal concern is that proposed rates satisfy the financial provisions of the statutes. For this purpose the Commission reviews and approves or disapproves various rate schedules of the marketing agents with primary reference to pay out. If the Commission does not approve particular schedules it then becomes the responsibility of the federal marketing agent to submit alternate schedules for approval so as to meet the principles of the Commission's action disapproving prior schedules. Thus, an objective of this regulatory function of the Commission is to provide assurance to the Congress that the large sums of money appropriated for construction of Federal hydroelectric projects are recovered through power revenues in accordance with Congressional intent.

In fiscal year 1974, the Commission staff will undertake cost allocation studies for two Corps of Engineers' projects for which the allocation responsibility has been assigned by law to the Commission. These projects, located on the lower Snake River, have been placed in operation. The allocation studies are needed to determine the financial requirements of reimbursable functions of the projects. For most Corps of Engineers' projects, the allocation responsibility has not been assigned by law to any agency and, in those cases, the Commission staff cooperates with the Departments of the Army and Interior in the allocation studies. For such cooperative cost allocation studies, it is expected that the staff will complete two studies on Corps of Engineers' projects in each of fiscal years 1974 and 1975.

<u>WORKLOAD*</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
On hand July 1	9	6	7
Received	79	78	77
Total Workload	88	84	84
Completed	82	77	77
On hand June 30	6	7	7

*Formal reports, rate filings, and cost allocations.

B. HEADWATER BENEFITS DETERMINATIONS

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	10	10	10	0

Section 10(f) of the Federal Power Act makes the Commission responsible for determining the equitable amount an owner of a downstream non-Federal hydroelectric development shall pay to the United States, or to a licensee, for benefits provided by the headwater improvement.

There are 54 river basins in the country in which non-Federal hydroelectric developments are situated downstream from headwater improvements of the United States or of licensees. In these 54 river basins there are 287 headwater improvements and 437 downstream hydroelectric developments. Of the downstream developments, 369 are owned by non-Federal parties.

In 34 of the 54 river basins there are Federally owned headwater improvements. Benefits provided by the Federal projects in these basins may result in payments to the Treasury of the United States. Investigations of situations which appear to involve the largest payments to the United States are given precedence.

Pursuant to orders of the Federal Power Commission, about \$26.5 million have been paid thus far to the United States for headwater benefits provided by Federally owned reservoirs to downstream non-Federal hydroelectric developments. In addition, nearly \$352,000 have been paid to the United States for Commission costs for making the headwater benefits determinations.

The Commission has adopted regulations which provide for establishing average annual payments where conditions permit. In most cases, however, detailed studies must be made by the Commission's staff. A backlog of headwater benefits work still remains although it is gradually being reduced. Investigations become more complex as additional projects are constructed, and it is increasingly difficult to arrive at proposed payments which are not objected to by the parties involved. As a result, in a number of cases, ultimate determinations require extensive proceedings and litigation.

In 28 river basins there are non-Federal headwater improvements operating under Federal Power Commission licenses. Eight of these are basins in which there are also Federally owned headwater improvements. In each of these 28 situations, the Commission may either approve settlement agreements among non-Federal parties, or determine the amount of payments to be made.

<u>WORKLOAD (Basin Investigations)</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
On hand July 1	27	30	23
Initiated	10	11	13
Total Workload	37	41	36
Completed	7	18	18
On hand June 30	30	23	18

C. JOINT WATER RESOURCES STUDIES

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	14	14	14	0

The Commission's knowledge and expertise in power planning and water resources development are utilized in joint comprehensive water resources planning. Under authority of the Federal Power Act and the Water Resources Planning Act, the Commission staff participates in activities of the Water Resources Council. The staff takes an active part in all comprehensive river basin planning studies and normally takes the lead in the power planning aspects which include: estimating future power needs; tentatively selecting the types of generating plants - hydroelectric, fossil-fuel or nuclear steam-electric, and others - to meet the needs; analyzing power plant site locations; estimating condenser cooling water requirements for steam-electric plants; and making feasibility studies of pumped storage and conventional hydroelectric plants to serve peaking requirements. These planning studies are useful to the Commission in licensing non-Federal hydroelectric projects.

The Commission is represented on eight administrative and technical committees of the Water Resources Council and its staff participates in ad hoc task forces which are assigned such tasks as reviewing the report of the National Water Commission, proposing a unified national program for flood plain management, and establishing procedures for evaluation of water and related land resources projects. The staff also joins in the interagency review of the provisions of interstate compacts.

Staff members in the Commission's regional offices serve on and participate in the work of the six* river basin commissions established by the President under Title II of the 1965 Water Resources Planning Act, the three Federal-State Interagency river basin committees, and the one ad hoc survey coordinating committee, which were in operation at the beginning of fiscal year 1974. These commissions and committees coordinate the water and related land resources planning activities of the State and Federal agencies in their respective areas. They had 9 comprehensive river basin planning studies under way or nearing completion at the beginning of fiscal year 1974. Completion of 3 studies is expected in fiscal year 1974.

An important investigation in which the Commission staff is cooperating is the Department of the Interior's Western U.S. Water Plan - the Westwide Study. Planning activities are scheduled for completion in fiscal year 1974.

<u>WORKLOAD*</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
On hand July 1	84	79	76
Initiated	23	10	10
Total Workload	107	89	86
Completed	28	13	15
On hand June 30	79	76	71

*Studies, Commissions, Committees, and Task Forces.

D. HYDRO AND ELECTRIC RECURRING DATA REPORTS

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	43	39	38	- 1

Section 311 of the Federal Power Act authorizes and directs the Commission to collect, compile, keep current, and disseminate information relative to the generation, transmission, distribution, and sale of electric energy and related matters from all segments of the industry throughout United States and its possessions. These data are the basis of Federal Power Commission authoritative publications and statistics that are regularly used by the Congress, industry, Federal, state, and local agencies, the general and technical press, foreign governments and United Nations' organizations, academic and research organizations, and the general public.

Publications provided by the activity include Power Statistics (monthly), Typical Electric Bills (annual), All Electric Homes (annual), Statistics of Privately Owned Electric Utilities, Statistics of Publicly Owned Electric Utilities, and the comprehensive National Electric Rate Books (State revisions issued periodically). Currently, data for the Power Statistics report are collected on a monthly basis from 3,600 electric utility generating plants and 900 industrial electric generating plants, covering installed capacity, energy generated, and fuel

*Excludes the Souris-Red-Rainy River Basin Commission, established in 1967, which terminated on June 30, 1973.

consumed, by type, in the production of electric energy. These data are a basic source for the Commission's analyses and forecasts and are widely used by other organizations as the authoritative data source. The current annual growth rate of the number of utility plants reporting is approximately two percent, which is expected to remain at this level, at least, in the future.

For the Typical Electric Bills report, annual responses are solicited from approximately 2,300 utilities, for the National Electric Rate Books, from approximately 1,400 utilities, and for All Electric Homes, from approximately 200 utilities. To furnish data to the Bureau of Labor Statistics for its use in the preparation of the Cost of Living Index, 129 utilities in 1974 communities are canvassed monthly. The expanding data requirements of the Bureau of Labor Statistics, together with additional rate data requested by the Commission's Office of Economics, are the contributory factors in the FY 1975 personnel additions requested.

The rapidly accelerating worldwide interest in electric data and related energy matters has increased the number of statistical reports furnished State Department authorized agencies, including seven detailed reports per year to the Statistical Division of the Economic Commission for Europe (United Nations) and one to the Organization for Economic Cooperation and Development (OECD).

E. NATURAL GAS RECURRING DATA REPORTS

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	7	6	7	+1

This program involves the review and analysis, assembly and publication of two major publications of the Commission, "Statistics of Interstate Natural Gas Companies," "Sales by Producers of Natural Gas to Interstate Pipeline Companies" and monthly press releases on financial and operating data on jurisdictional gas companies.

Electronic data processing is used to accumulate data for these annual and monthly publications. At present, 105 natural gas companies are solicited annually and 30 monthly. Even though additional refinements would be possible if data were submitted by companies on card or tape form, the same amount of effort would be required by our professional accounting staff to do the analysis and review work.

Note: for a complete listing of FPC publications see pages 11-9 and 11-10.

VIII. CONSERVATION RESEARCHComparative Summary of Activity

	<u>1973</u> <u>Actual</u>	<u>1974</u> <u>Estimate</u>	<u>1975</u> <u>Estimate</u>	<u>Change</u> <u>from 1974</u>
<u>Conservation Research</u>				
Positions	-	-	3	+3
Costs	-	-	\$100,000	+\$100,000

VIII. CONSERVATION RESEARCH

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	--	--	3	+ 3

Energy Conservation - FY 1975

Under the Federal Power Act and the Natural Gas Act, the Commission has established energy conservation programs with respect to natural gas and electric power. Commission Orders 495, 496, 497 and 498, issued between November 13 and December 21, 1973, established an ongoing energy conservation program for electric utilities, instituted emergency actions for conservation of fuel resources by electric utilities, and initiated a nationwide conservation program for natural gas.

Energy conservation in the form of more efficient use of fuels at the point of consumption has the potential of releasing 20-30 percent of our existing fuel supplies for other uses, thereby contributing significantly to the relief of the energy shortage. Conservation measures of this sort rely on technology that is now available, and in use in a very limited number of large factories, in a few small job shops, in a few commercial buildings, and in some homes. Nationwide enjoyment of these benefits requires that the specific sample experiences be evaluated in terms of the degree to which they can be adapted to all other important places, that these conclusions be evaluated and transmitted to the public utilities in the form of "model energy conservation programs," and disseminated in a manner that will accelerate their adoption.

All of these improvements have a technical base, and range from methods for adjusting and maintaining equipment, improved energy control systems, heat transfer technologies, improved processes, and some relatively new process equipment. In many of the basic industries of the U.S. economy, particularly in large-scale materials processing industries, the structure of the industry and the economic incentives that guide them have tended to retard the spread of energy conservation technologies. Industries such as metal heat treaters, foundries, cement makers, polymer forming industries, paper makers, and textile factories are among the largest potential energy savers. Energy controls, insulation, and heat exchange apparatus could produce large benefits in commercial buildings; the same is true of housing units.

The energy conservation program in the Federal Power Commission will be devoted to identifying and evaluating those technologies that have demonstrated their fuel-saving potential, and in providing that evaluated information to the public utilities and others that can serve as the most efficient agents in disseminating the advice and bringing the potential nationwide fuel saving to actual achievement.

Three senior positions are requested in order to carry out this program. Their activities will include the following:

- (a) Set up and maintain an active search for all energy conservation programs being tested by using industries, public utilities, government agencies, in order to find those that have the greatest promise for large fuel savings and broadest application;

(b) Monitor such efforts in order to obtain data concerning realized improvements in fuel use, and technical estimates of probable results under circumstances that might be found elsewhere in the nation;

(c) Evaluate that set of results to determine the expected gains if the experience were replicated more widely;

(d) Analyze the technical results in order to find the best manner of incorporating those results into the FPC regulatory process-- especially as they relate to Commission Orders 495, 496, 497, and 498 on Energy Conservation;

(e) Develop the necessary technical reports, guidelines, advisory bulletins; or training and reference materials that could be widely disseminated;

(f) Work cooperatively with public utilities, State Public Utilities Commissions, trade and professional associations, and end users of fuel to adapt the materials to their energy conservation programs;

(g) Provide technical advice and assistance in interpreting or using that technical information to the FPC, to the State Public Utilities Commissions, trade and professional associations, and end users as appropriate;

(h) Assemble all technical information on energy conservation technologies and experience with it in a central location, and disseminate that information or provide access to it all who might benefit; and

(i) Evaluate the benefits and costs that would be associated with use of a number of those options simultaneously in one location when the combined effects are significantly different from a simple summation of independent technical improvements.

The collection of information involves a number of visits to industrial plants and building experiments, in addition to participation in professional working groups for dissemination purposes.

IX ADMINISTRATION

Comparative Summary of Activity

	<u>1973</u> <u>Actual</u>	<u>1974</u> <u>Estimate</u>	<u>1975</u> <u>Estimate</u>	<u>Change</u> <u>from 1974</u>
A. <u>Commissioners</u>				
Positions	36	40	44	+ 4
Costs	\$ 710,123	\$1,034,000	\$1,263,000	+\$229,000
B. <u>Program, Budget and Finance</u>				
Positions	26	28	29	+ 1
Costs	364,048	472,000	500,000	+ 28,000
C. <u>Personnel</u>				
Positions	23	22	23	+ 1
Costs	384,915	405,000	470,000	+ 65,000
D. <u>Service Support</u>				
Positions	14	16	17	+ 1
Costs	<u>157,731</u>	<u>219,000</u>	<u>242,000</u>	<u>+ 23,000</u>
<u>TOTAL ADMINISTRATION</u>				
Positions	99	106	113	+ 7
Costs	<u>\$1,616,817</u>	<u>\$2,130,000</u>	<u>\$2,475,000</u>	<u>+\$345,000</u>

IX. ADMINISTRATION

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>Change from 1974</u>
Positions	99	106	113	+ 7

Administration includes executive, managerial, and support personnel whose functions are applicable to the Commission as a whole.

These positions include the Chairman, the Commissioners, their assistants (32), the Chief Engineer (2), the Office of the Executive Director (10), the Office of Personnel Programs (23), and those positions of the Office of the Comptroller (31) pertaining to general program, management, budget and financial control which are included in the administrative activity. A part of the Office of Administrative Operations (15) which includes mail distribution, printing, record files, procurement and drafting is prorated as overhead costs to this activity. The increase of 7 positions is for: 2 staff assistants each for the Chairman and Executive Director, 1 position in the Office of Personnel Programs, 1 position in the Office of the Comptroller for financial and management work, and 1 additional position for administrative support activities in the Office of Administrative Operations.

SALARIES AND EXPENSES

JUSTIFICATION BY OBJECT CLASS REQUIREMENTS
Summary of Request by Object Class

<u>Number</u>	<u>1973</u> <u>Actual</u>	<u>1974</u> <u>Estimate</u>	<u>1975</u> <u>Estimate</u>	<u>Difference</u>
11.0	\$18,828,607	\$22,019,000	\$22,900,000	+\$ 881,000
12.0	1,558,126	1,859,000	1,900,000	+ 41,000
21.0	568,467	710,000	760,000	+ 50,000
22.0	18,703	40,000	40,000	-
23.0	538,955	629,000	2,905,000	+ 2,276,000
24.0	406,621	430,000	513,000	+ 83,000
25.0	524,481	2,561,000	2,747,000	+ 186,000
26.0	189,819	216,000	310,000	+ 94,000
31.0	<u>126,633</u>	<u>232,000</u>	<u>318,000</u>	<u>+ 86,000</u>
	\$22,760,412	\$28,696,000	\$32,393,000	+\$3,697,000
94.0	+ 359,483	-	-	-
99.0	\$23,119,895	\$28,696,000	\$32,393,000	+\$3,697,000
	+ 109,606			
	+ 847,499			
OMB Reserve	-			
Total Appropriation or Estimate	<u>\$24,077,000</u>	<u>\$28,696,000</u>	<u>\$32,393,000</u>	<u>+\$3,697,000</u>

11.0 - Personnel Compensation

	<u>Summary of Estimate</u>			
	<u>1973 Actual</u>	<u>1974 Estimate</u>	<u>1975 Estimate</u>	<u>Difference</u>
Positions	1,263	1,297	1,337	+ 40
Average Number of Employees	1,151.9	1,261	1,295	+ 34
Total Permanent				
Positions Costs	\$20,555,052	\$22,496,694	\$23,538,322	+\$1,041,628
Extra day(s)	-	-	+ 89,794	+ -89,794
Lapse savings	-1,774,697	- 942,694	-1,213,116	- 270,422
Terminal leave	+ 181,476	+ 190,000	+ 200,000	+ 10,000
Net savings due to lower pay scales	- 475,843	-	-	-
Net Permanent				
Position cost	\$18,485,988	\$21,744,000	\$22,615,000	+\$ 871,000
Temporary positions and Y.O.C.	+ 235,816	+215,000	+ 215,000	-
Consultants	+ 26,693	+ 60,000	+ 70,000	+ 10,000
Overtime	+ 80,110	<u>/80,000/</u>	<u>/80,000/</u>	-
Total personnel compensation cost	<u>\$18,828,607</u>	<u>\$22,019,000</u>	<u>\$22,900,000</u>	<u>+\$ 881,000</u>

Estimates of personnel compensation are based on a straight 40-hour workweek for 52 work-weeks at rates currently in effect, including pay increase costs due to Executive Order 11739, issued October 3, 1973. Temporary positions and overtime have been estimated at \$215,000 and \$80,000, respectively. Overtime will be absorbed in the total funds available. Funds are provided for use of outside consultants to secure specialized services not available from the staff.

The increase in total compensation includes estimated costs of within-grade promotions for existing positions.

Terminal leave payments are estimated on the basis of experience.

11.0 - Personnel Compensation (Cont'd)

COMPARISON OF NORMAL TURNOVER RATES BY MAJOR ORGANIZATIONS
(PERMANENT POSITIONS ONLY)

FISCAL YEAR 1973

<u>Office</u>	<u>Average Filled Positions</u>	<u>Accessions</u>		<u>Separations</u>	
		<u>Number</u>	<u>Rate</u>	<u>Number</u>	<u>Rate</u>
Office of Accounting and Finance	101	10	9.9	20	19.8
Office of the General Counsel	128	65	50.8	55	43.0
Bureau of Natural Gas	288	28	9.7	24	8.3
Bureau of Power	307	72	23.5	51	16.6
Others	323	47	14.6	64	19.8
Total	1147	222	19.4	214	18.7

The above table reflects the accession and separation rate for each of the four largest bureaus and offices of the Commission and for all of the other offices combined.

Consultants

<u>1973 Actual</u>	<u>1974 Estimate</u>	<u>1975 Estimate</u>
\$26,693	\$60,000	\$70,000

Consultants are employed by the Commission in the engineering, economics, and finance and accounting fields. They prepare or recommend solutions to technical problems which require highly specialized skills not within the range of Commission personnel.

The increasingly complex economic and environmental considerations will require extensive use of consultants in FY 1975. We particularly anticipate the use of consultants in the following special areas: computerized plant mortality programs related to utility depreciation practices; cost analysis programs of utilities and their implementation; economic and financial surveillance programs for utilities; specialized geologic and engineering analyses related to natural gas regulation and the use of advanced technology techniques; and studies to assess the effect of current environmental regulations, their demands on technology and resources, and their impact on the electric power and natural gas industries.

The estimate provides for the services of consultants at rates up to \$138.46 per day (daily rate for top level of GS-15).

12.0 - Personnel BenefitsSummary of Estimates

	<u>1973</u> <u>Actual</u>	<u>1974</u> <u>Estimate</u>	<u>1975</u> <u>Estimate</u>	<u>Difference</u>
Health benefits	\$ 186,517	\$ 225,000	\$ 225,000	-
Employees' life insurance	70,074	85,000	85,000	-
Civil service retirement	1,273,319	1,510,000	1,548,000	+ 38,000
F.I.C.A. tax	14,400	17,000	17,000	-
Employee awards	6,610	10,000	10,000	-
Employee compensation fund	3,752	2,000	5,000	+ 3,000
Moving expenses	<u>3,454</u>	<u>10,000</u>	<u>10,000</u>	<u>-</u>
Total costs	\$1,558,126	\$1,859,000	\$1,900,000	+\$ 41,000

Funds requirements for this object class include the Commission's share of contributions to all employees' health benefits costs, life insurance, retirement and F.I.C.A. tax. The increase for personnel benefits in FY 1975 totals \$41,000. The amount estimated for employees' civil service retirement is based upon the estimated personnel compensation for FY 1975. Awards for employee suggestions and moving expenses for employees are estimated on the the basis of experience and anticipated costs.

21.0 - Travel and Transportation of Persons

	<u>Summary of Estimates</u>			
	<u>1973 Actual</u>	<u>1974 Estimate</u>	<u>1975 Estimate</u>	<u>Difference</u>
Hydroelectric Regulation	\$ 75,943	\$150,000	\$150,000	--
Electric Power Industry Systems Evaluation	51,854	73,000	86,000	+\$13,000
Electric Power Utilities Regulation	177,741	204,000	204,000	--
Natural Gas Pipeline Regulation	98,245	196,000	220,000	+ 24,000
Natural Gas Producers Regulation	7,275	16,000	16,000	--
Natural Gas Industry Systems Evaluation	96,305	2,000	2,000	--
Services to Other Agencies and Public	27,829	32,000	32,000	--
Conservation Research	--	--	10,000	+ 10,000
Administration	<u>33,275</u>	<u>37,000</u>	<u>40,000</u>	<u>+ 3,000</u>
Total	\$568,467	\$710,000	\$760,000	+\$50,000

General

In fiscal year 1975 estimated travel costs for all functions of the Commission total \$760,000, or \$50,000 more than programmed for FY 1974.

This request includes travel funds necessary to cope with the Commission's responsibilities in the following areas: travel essential to developing increased reliability of the Nation's electric power systems and the investigation of electric power interruptions; travel required in conducting electric power and the natural gas pipeline investigations related to certificate and rate cases, including travel incident to the litigation of cases; travel incident to monitoring and investigating the status of natural gas reserves; travel incident to providing the expertise and consideration relating to environmental work; travel required to stay current with the safety inspection, operational supervision, and the audit work required under the procedures for relicensing; travel to perform on a continuing basis the financial audits of electric utilities and natural gas pipeline companies; travel relating to licensing matters in hydroelectric regulation, including inspection of facilities and formal hearing activities; travel required for participation in activities of the Water Resources Council, of which the Chairman of FPC is a member; and other necessary travel of the Commissioners.

21.0 - Travel and Transportation of Persons (Continued)

Following are the estimated travel requirements distributed among the several Commission programs:

Hydroelectric Regulation

We are requesting travel expenses of \$150,000 for this program in FY 1975. The request reflects a continuing heavy audit and growing inspection program of hydroelectric projects under license, and investigations of projects for which license applications are in process. The Commission has under license 451 hydroelectric projects comprised of about 700 developments requiring periodic inspection. Pending are 215 applications for proposed projects, applications for license of previously constructed projects, and applications for relicensing. Projects under construction require monthly inspections, and projects in operation require annual inspections. The emphasis in this program is the safety of the project and the public. In FY 1975 we estimate 1030 inspections will be conducted. Travel is required in relicensing or takeover activities to perform the detailed audits necessary to determine net investment and excess earning during the license period. Travel also will be required in the preparation of environmental impact statements and river basin appraisal reports which are used in both recapture-relicensing work and pending license applications. In addition, travel will be required in connection with hearings on applications for license and amendments thereof, both in preparation for the participation in hearings held in the field.

Electric Power Industry Systems Evaluation

A total of \$86,000 is requested for this program, an increase of \$13,000 over last year. This request reflects travel requirements for work related to electric power reliability, power surveys, analyses of electric power systems, and travel related to the resolution of environmental problems and development and analysis of environmental data related to land use and plant siting, air pollution, water quality standards, problems of fuel shortages, long and short range activities related to future energy needs, and matters concerning national energy policies. Staff is also required to travel to investigate power interruptions and assist electric power utilities in solving such problems. It is essential that there be staff attendance and participation at meetings of the ten regional councils and their committees on planning and reliability, and travel related to the Commission's Policy Statement on Reliability and Adequacy of Service which instituted a comprehensive reporting system on operating data and advance planning from all segments of the electric industry (private, public, cooperative and Federal). As an adjunct to the meeting with the State-Federal Staff Groups and senior staff members of the various state regulatory commissions to devise coordinated programs to enhance reliability.

Electric Power Utilities Regulation

In FY 1975, travel expenses totalling \$204,000 are requested for this program, the same as in FY 1974. These funds are used for a broad area of activities requiring travel: field investigations related to proposed rate increases and rate cases; analyses of the operations of electric utilities; investigations in connection with proposed mergers and acquisitions; auditing of electric utilities subject to the Commission's jurisdiction, and travel incident to the preparation for the conduct of formal hearings.

21.0 - Travel and Transportation of Persons (Continued)

Natural Gas Pipeline Regulation

The \$220,000 requested for this program in FY 1975 is an increase of \$24,000 over FY 1974. This request is in anticipation of travel incident to processing a continued high number of certificate applications and rate increase filings in FY 1975, for travel associated with: auditing natural gas pipeline companies; investigating pipeline gas supply; investigating environmental impact of proposed construction of natural gas facilities; conducting formal hearing cases; and travel incident to the increase in supplemental supply projects which include the importation, terminalling and pipeline transportation of liquefied natural gas and the delivery and storage of hydrocarbon feedstocks such as naphtha.

Natural Gas Producers Regulation

The \$16,000 for travel requested for this program in FY 1975 is the same amount as last year, and will provide travel funds for investigation of certificate applications and rate filings expected to be filed by natural gas producers.

Natural Gas Industry Systems Evaluation

The request for \$2,000 in FY 1975 is the same amount programmed for FY 1974. The continuing travel to monitor and investigate natural gas supplies is included in the Natural Gas Pipeline Program.

Services to Other Agencies and Public

The \$32,000 requested for travel in this program is the same as in FY 1974. Included in this program is the review of proposed Federal projects, rate schedules and cost allocations, headwater benefits determinations, joint water resources studies, and recurring data reports for natural gas companies, licensed hydroelectric projects and electric utilities. This request will permit us to maintain a stable level of effort in this program, providing travel particularly for work in connection with joint water resources studies. The Commission is represented on six river basin commissions, a number of Federal-State water resources planning entities located throughout the country, and two boards of the International Joint Commission. Commission representatives must travel to the meetings of these entities.

Conservation Research

An amount of \$10,000 is requested for this program, related to the development of energy conservation activities. Travel will be required to participate in discussions on energy conservation activities.

Administration

Administrative travel requirements total \$40,000 for FY 1975. This includes travel by the Commissioners and the staff for purposes not directly chargeable to specific program areas. Included is travel to national and international energy meetings, as well as conferences and meetings of industry, state and regional agencies related to the regulation of the natural gas and electric power industries, for personnel recruiting and renting Commission motor vehicles.

22.0 - Transportation of ThingsSummary of Estimates

	1973 <u>Actual</u>	1974 <u>Estimate</u>	1975 <u>Estimate</u>	<u>Difference</u>
Freight and Express	\$ 1,462	\$10,000	\$10,000	-
Household Effects	<u>17,241</u>	<u>30,000</u>	<u>30,000</u>	<u>-</u>
Total Costs	<u>\$18,703</u>	<u>\$40,000</u>	<u>\$40,000</u>	<u>-</u>

The transportation of household effects reflects anticipated costs associated with the increase and relocation of personnel. Freight and express expenses for the transportation of office furniture, equipment and other items are estimated to be the same in FY 1975.

23.0 - Rents, Communications and UtilitiesSummary of Estimates

	1973 <u>Actual</u>	1974 <u>Estimate</u>	1975 <u>Estimate</u>	<u>Difference</u>
Telephone, TWX Telegraph	\$186,611	\$211,000	\$225,000	+\$ 14,000
Postage	89,279	110,000	130,000	+ 20,000
Rent, ADP Equipment	116,455	125,000	305,000	+ 180,000
Rent, Copying Equipment	64,355	93,000	93,000	-
Rent, Other Equip- ment	40,867	43,000	52,000	+ 9,000
Space Rental	<u>41,388</u>	<u>47,000</u>	<u>2,100,000</u>	<u>+ 2,053,000</u>
Total Costs	\$538,955	\$629,000	\$2,905,000	+\$2,276,000

The increase of \$14,000 for telephone, TWX and telegraph in FY 1975 reflects the anticipated increase in usage and the costs associated with the installation of telephones for additional personnel.

The increase of \$20,000 in postal costs reflects increase in costs and in volume of mail.

Rental of ADP equipment in 1975 is increased by \$180,000 to provide for computer rental during the last 3 months for the Regulatory Information System. An increase of \$9,000 is requested for 3 IBM magnetic card typewriters under the rental of other equipment.

A total of \$2,100,000 is requested to cover the cost of space to house FPC in 1975. This includes an estimated \$2,050,000 in rental payments to GSA for presently occupied space and \$50,000 for new space in 1975 to house new employees.

24.0 - Printing and ReproductionSummary of Estimates

	1973 <u>Actual</u>	1974 <u>Estimate</u>	1975 <u>Estimate</u>	<u>Difference</u>
Public use forms	\$ 3,374	\$ 12,000	\$ 12,000	-
Publications (53,550)*	436,078	335,000	410,000	+\$ 75,000
Maps	4,720	34,000	38,000	+ 4,000
Binding	4,086	3,000	4,000	+ 1,000
Legal briefs	730	4,000	4,000	-
Printing of forms, cards, paper, envelopes	<u>11,183</u>	<u>42,000</u>	<u>45,000</u>	<u>+ 3,000</u>
Total obligations	\$460,171	\$430,000	\$513,000	+\$ 83,000
*Change in resources	<u>-53,550</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total costs	\$406,621	\$430,000	\$513,000	+\$ 83,000

Estimates for printing and reproduction requirements in 1975 cover the following items:

1. Public Use Forms	<u>1975</u> \$ 12,000
2. Publications	
(a) Administrative Series	
FPC Reports, Opinions and Decisions	44,000
Preliminary Prints of FPC Reports	98,000
List of Units of Property	800
Uniform System of Accounts-Natural Gas Companies ..	4,500
Uniform System of Accounts-Public Utilities and Licensees	1,200
Annual Report of FPC	12,000
FPC News	80,000
Federal and State Commission Jurisdiction - Electric, Gas and Telephone Utilities	8,000
(b) Statistical Series	
Electric Power Statistics	2,000
Depreciation Practices of Electric Utilities	7,000
Statistics of Privately Owned Elec. Utilities	5,500
Statistics for Interstate Nat. Gas PL Cos	5,000
Statistics of Publicly Owned Electric Utils.	3,000
Steam-Electric Plant Construction Cost	2,500
Sales by Producers of Natural Gas to Pipeline Companies	4,000

24.0 - Printing and Reproduction (Cont'd)

Sales of Firm Electric Power for Resale	\$ 3,000
Hydroelectric Plant Construction Cost	2,000
(c) Power Series	
Hydroelectric Power Evaluation	7,000
Alaska Power Survey	9,000
World Power Data	1,500
Recreational Opportunities at Hydroelectric Projects	18,000
National Power Survey	35,000
(d) Rate Series	
National Electric Rate Book	7,000
All Electric Homes	1,000
Typical Electric Bills	3,000
(e) Gas Series	
National Gas Survey	40,000
Gas Supplies of Interstate Natural Gas Cos.....	3,000
National Gas Supply and Demand	3,000
	<u>\$410,000</u>
3. Maps	
Principal Electric Facilities	\$ 30,000
Major Natural Gas Pipelines-Small-2 issues	2,000
Principal Electric Facilities - 8 Regions	6,000
	<u>\$ 38,000</u>
4. Binding - Library	\$ 4,000
5. Legal Briefs	4,000
6. Forms, Cards, Paper, Envelopes	<u>45,000</u>
Printing and Reproduction Grand Total	<u>\$513,000</u>

The total funds for printing in FY 1975 are \$ 83,000 more than in FY 1974. The Commission is required to fully publicize its actions and to disseminate statistical information concerning the regulated industries found necessary to the public interest. The industries, interested parties, and the general public as well as the Commission staff and other government agencies use the publications in their day-to-day operations. The increase of \$83,000 reflects the increase in costs for printing the Commission's standard publications.

25.0 - Other Services

	<u>Summary of Estimates</u>			
	<u>1973 Actual</u>	<u>1974 Estimate</u>	<u>1975 Estimate</u>	<u>Difference</u>
Storage of household effects	\$ 90	\$ 1,000	\$ 1,000	-
Advertising	13,256	13,000	25,000 +	12,000
Maintenance and repair of equipment	40,667	42,000	42,000	-
Space construction and alteration	34,604	20,000	40,000 +	20,000
Microfilm services	6,855	15,000	15,000	-
Personnel investigations	10,600	20,000	30,000 +	10,000
Health services	30,810	42,000	45,000 +	3,000
Employee training	37,708	57,000	75,000 +	18,000
Reception and representation	241	1,000	1,000	-
Security guard	4,000	28,000	71,000 +	43,000
Building services	-	-	20,000 +	20,000
Other contractual services	156,737	124,000	142,000 +	18,000
Environmental studies	-	30,000	350,000 +	320,000
ADP contractual services	84,056	238,000	250,000 +	12,000
Regulatory Information system (302,716)*	<u>407,573</u>	<u>1,930,000</u>	<u>1,640,000</u>	<u>- 290,000</u>
Total obligations	\$827,197	\$2,561,000	\$2,747,000 +	\$ 186,000
*Change in resources	<u>-302,716</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total Costs	\$524,481	\$2,561,000	\$2,747,000 +	\$ 186,000

The amount of funds requested under this object classification is \$186,000 more than programmed for FY 1974.

25.0 - Other Services (Continued)

By item the increases are as follows: Advertising - funds are increased by \$12,000 to meet the requirements of public notice under the Federal Power Act of applications for licensing hydroelectric power projects; construction and space alteration - funds requested are increased by \$20,000 to provide for building modifications; personnel investigations - funds are increased by \$10,000 to cover increased investigation costs and the number of investigations; health services - funds are increased by \$3,000 to meet increased costs for professional medical services; training - funds are increased \$18,000 to provide training to keep abreast of technical advances and to implement the FPC executive development program pursuant to OMB Bulletin 74-1; security guard - funds are requested to maintain the current third guard on 24-hour duty at the present FPC location at 825 North Capitol Street at a cost of \$71,000 (GSA guard) or \$43,000 more than in FY 1974; building services - funds are included in the amount of \$20,000 as needed for overtime charges to keep building air-conditioning and heating systems in operation; other contractual services - the increase of \$18,000 provides additional funds to meet costs of analyzing data on fuel supply submitted by utilities; environmental studies - an increase of \$320,000 is requested to provide outside expertise not available in the staff in preparing environmental impact statements, particularly generic impact statements and analyses of the safety aspects of a project, particularly natural gas storage projects; ADP contractual services - the increase of \$12,000 is for increased ADP time-sharing. The increases are offset in part by the smaller amount requested for the Regulatory Information System in FY 1975.

26.0 - Supplies and MaterialsSummary of Estimates

	<u>1973</u> <u>Actual</u>	<u>1974</u> <u>Estimate</u>	<u>1975</u> <u>Estimate</u>	<u>Difference</u>
Office supplies (16,300)*	\$ 43,833	\$ 55,000	\$ 75,000	+\$20,000
Printing and reproduction supplies	85,737	95,000	150,000	+ 55,000
Library supplies	25,168	16,000	30,000	+ 14,000
ADP supplies	<u>18,781</u>	<u>50,000</u>	<u>55,000</u>	<u>+ 5,000</u>
Total obligations	\$173,519	\$216,000	\$310,000	+\$94,000
*Change in resources	<u>+16,300</u>	-	-	-
Total Costs	\$189,819	\$216,000	\$310,000	+\$94,000

26.0 - Supplies and Materials (Cont'd)

The cost of office supplies for FY 1975 is estimated to be \$20,000 above FY 1974. The increase of \$55,000 for printing and reproduction supplies provides for printing of Commission notices, orders, opinions, and reports. Funds for library material are estimated at \$30,000 in 1975 to maintain information coverage of the highly technical fields in which the Commission must function and to provide for maintenance of various government manuals and regulations and pamphlets. The \$5,000 increase in ADP supplies reflects the increasing utilization of ADP in FPC operations, and the needs of the Regulatory Information System.

31.0 - EquipmentSummary of Estimates

	<u>1973</u> <u>Actual</u>	<u>1974</u> <u>Estimate</u>	<u>1975</u> <u>Estimate</u>	<u>Difference</u>
Emergency electric power generators	-	-	\$ 86,000	+\$86,000
Office machines	\$ 53,252	\$ 95,000	90,000	- 5,000
Office furniture (19,517)*	66,331	86,000	82,000	- 4,000
Printing equipment	14,962	25,000	40,000	+ 15,000
Library publications	11,259	26,000	20,000	- 6,000
ADP equipment	<u>346</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total obligations	\$146,150	\$232,000	\$318,000	+\$86,000
*Change in resources	<u>- 19,517</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total costs	<u>\$126,633</u>	<u>\$232,000</u>	<u>\$318,000</u>	<u>+\$86,000</u>

Funds are requested to purchase 2 electric generators for use under emergency conditions to provide electric power to operate the ADP facilities and the air-conditioning system to provide a constant temperature. No increase in funds is requested for office furniture or office machines. The funds requested will be used for furniture for new personnel, the replacement of worn-out furniture, and furnishings needed for hearing, conference and meeting rooms at the new location and for office machines such as typewriters, calculators and adding machines for new employees and to replace worn-out equipment.

\$40,000 will be required to purchase one large press (\$16,500), one small press (\$10,000) and replace an obsolete paper cutter (\$13,500).

The funds requested for library publications are for the maintenance of reference books covering the professional disciplines of the Commission including legal, economic, accounting, engineering, environmental, geological, managerial and other publications.

CHANGE IN SELECTED RESOURCES
FROM FY 1972 TO FY 1973

<u>Object Classification</u>	<u>Unpaid Undelivered Orders 1972</u>	<u>Unpaid Undelivered Orders 1973</u>	<u>Changes</u>
24 Printing and Reproduction	\$312,854	\$ 366,404	+\$ 53,550
25 Other Services	334,470	637,186	+ 302,716
26 Supplies and Materials	13,862	12,280	- 1,582
31 Equipment	<u>51,856</u>	<u>71,373</u>	<u>+ 19,517</u>
Subtotal	\$713,042	\$1,087,243	+\$374,201
Stores	<u>37,450</u>	<u>22,732</u>	<u>- 14,718</u>
TOTAL	<u>\$750,492</u>	<u>\$1,109,975</u>	<u>+\$359,483</u>

The increase in selected resources resulted primarily from other contractual services in processing Regulatory Information System data, and printing of the National Gas Survey Report programmed during the last half of fiscal year 1973.

FEDERAL POWER COMMISSION

Regulatory Information System

The Federal Power Commission budget for Fiscal Year 1975 provides for full scale development of the Regulatory Information System (RIS) with agencywide computer capability installed to deal effectively with three major national issues: 1) the critical natural gas shortage, 2) electric power supply and 3) environmental impact on Commission regulated industries.

Background:

A computer service contract was awarded in June 1973 for the initial development of the Regulatory Information System (RIS). The first developmental operational stage will begin about February 1974 and continue until the beginning of fiscal year 1975. During the second half of fiscal year 1974, a second major ADP contract will be issued to provide a comprehensive design for the Commission's data base and the installation of terminals in various offices as well as the establishment of terminal centers. Initial staffing for these activities will be provided by the RIS computer service contractors. It is expected that this full scale development and implementation will continue throughout FY 74 and FY 75. By the middle of FY 75, the point will be reached when it will be economical to acquire computer equipment at the Commission.

The Data Bank:

During Fiscal Years 1974 and 1975, the Commission will be building its data bank. The first major phase will incorporate public use form data; this will be followed by data concerning daily and periodic regulatory actions, such as licenses and applications. The magnitude of the data bank will initially consist of millions of data bytes; by fiscal year 1975, more than one billion bytes will be added. Simultaneously, as instruction concerning the inquiry language is extended among staff members of all bureaus and offices, the number of computer terminals, CRT's and communications devices will be increased. By the end of fiscal year 1975 about sixty such devices will be in use throughout the Commission's headquarters. Almost each floor of the nine story headquarters will have a data center for high speed input/output.

This large scale data bank will require continuous "control" to maintain its accuracy, reliability and completeness. It will be changing dynamically each day -- to meet new regulatory needs. To control the situation, the Commission will institute a program of data management.

Data Management:

A principal component of the new Regulatory Information System (RIS) will be data management. An organizational unit within the ADP staff assisted by contractors will be responsible for the key computer software components, the operation of the data management system and its interaction with the operating system, the query language subsystem and other software components. Within this framework computer experts

will prepare instructions to the system which will control file structures, accesses, hardware responses and the effectiveness of the overall system. The head of this operation is known as the Data Manager.

The Data Manager will be assisted by ADP specialists. This unit will be responsible for the entire inventory of data in the Regulatory Information System (RIS) (over one billion bytes) and work in close liaison with service contractors.

Contract Services:

By the end of fiscal year 1975, the development and operation of the Commission's Regulatory Information System will include all thirty-seven public use form documents; the next major phase, will be the introduction of all data related to certificates, licenses and other authorizations of the Commission. This step will permit greater efficiency in staff processing of applications and bring the data "up-to-date" with the most recent information changes. The availability of all these data in one central data bank will allow much more complete and sophisticated analyses of the facts affecting the regulated industries; the Commission's staff will be able for the first time to apply maximum computer resources to resolving questions related to the major national issues: the critical natural gas shortage, electric power supply and environmental impact on Commission regulated industries. This increased computer activity will create the environment and factual basis to encourage the regulated companies to exercise maximum effort toward solving these national issues. The Commission's staff will develop an array of analytical computer programs to deal with these problems. To stimulate these activities, the Commission will establish a unit of mathematical and statistical programmers who will act as a focal point and a resource for consultation on designing computer simulation models related to the national issues. It is expected that the greatest benefit of this program will be the development of policies in the public interest; for example, one simulation model may relate the Commission's natural gas pricing actions to the rate of increased findings of natural gas and well drilling activity. Another subsystem will include the cost of transporting natural gas. The key to success of this program will be design of the Regulatory Information System. It will encompass participation by all professional employees of the Commission.

In order to carry out this phase of the RIS program, the Commission will rely mostly on contractor personnel to review each of our "processes" for handling certificates, applications and cases. These systems and subsystems will be redesigned to improve timeliness and reduce manual handling of documents. Images of the documents will reside in the central data bank.

The FPC contractor will also install computer terminals and instruct FPC personnel in the bureaus and offices how to operate these devices. Computer programs will be written to access the data bank and retrieve information as it is needed. In addition, the contractor will be required to review all information changes which may affect the Regulatory Information System data bank.

Service Contract Costs:

It is estimated that FY 1975 contract services for the data bank of the Regulatory Information System will total \$1.64 million. Funds will be required to obtain computer time, personnel, equipment and maintenance for the daily operation of the data bank and for the program developmental activities of the contractor(s). These will consist of: systems analysis, computer programming, data conversion operations and training of FPC personnel. The computer service contractor is expected to operate the system.

COSTS SUMMARY
REGULATORY INFORMATION SYSTEM

FISCAL YEAR 1975

Outside Contracts	\$1,640,000
Computer Rental @ \$60,000 per mo. for 3 months	<u>180,000</u>
TOTAL	\$1,820,000

Mr. NASSIKAS. I have tried to prepare a short statement. I certainly won't belabor it. I will summarize the short statement.

STATEMENT OF THE CHAIRMAN, FEDERAL POWER COMMISSION

APPROPRIATION REQUEST

Mr. NASSIKAS. To start with, our budget estimate is \$32,393,000, 1,337 positions. It is an increase of \$3,697,000 and 40 positions over the agency's fiscal year 1974 budget.

Most of the money is for office space, almost two-thirds of it.

As you know, the GSA now requires that as of July 1, 1974, agencies will provide for the rental of the building which they occupy. The rental cost and the costs for associated services required because we occupy our own building accounts for \$2,230,000 of the increase. Also, because of pay raises and other personnel compensation, we have increased pay costs of \$922,000, plus increases for travel, contractual services, printing and supplies amounting to \$545,000. I have included a summary table comparing 1973, 1974, and 1975. The changes are indicated by function and by division of the Commission, the number of people as well as the funds allocated to each operation of the Commission.

GENERAL ENERGY SITUATION

I will forget about 1920, as to what the Commission did back then. We are now in 1974, Mr. Chairman, and I trust we are doing things differently than they did then. That is the main point I am trying to emphasize.

We are in a far different situation today than we were 4 or 5 years ago, in that the era of abundant and cheap energy I regret to say is over. We are in an era of less energy at higher cost, at least temporarily and unless national policies are changed so we can develop our domestic resources, we are going to get into even a deeper bind. The Congress of the United States found in at least two or three bills this winter that there was an energy emergency. Mandatory allocations have been passed. The Federal Energy Office, is, of course, administering that program. We assist with reference to the allocations of residual fuel oil for the moment, to the electric utility industry.

CURTAILMENT PLANS OF PIPELINE COMPANIES

I am now at the top of page 6 of my statement. There are 37 jurisdictional pipeline companies which have filed proposed curtailment plans relating to firm contracts. There are petitions for emergency or extraordinary relief filed by 72 parties to date and this is increasing. It is about 10 percent of our firm demand—contract demand—throughout the United States, which cannot be met and which has to be curtailed and has had to be curtailed under priorities established by the Commission as a result of the gas shortage.

The difficulty with some of these curtailments is that alternate fuels are not available to meet requirements.

SHORTAGE OF NATURAL GAS AND COAL

So we have a shortage. The point I want to emphasize is that we have a shortage of not only natural gas in the United States to which the Commission and I have testified before your committee and other committees of Congress for over 4 years. We have identified the natural gas shortage. We have tried to do something about the gas shortage. I did not hear anything about a shortage of coal as of 2 or 3 years ago, but there is a shortage of coal.

SUPPLY AND AVAILABILITY OF COAL

We might have 500 years of coal in the ground, Mr. Chairman and members of the committee, but if you cannot mine it, you cannot deliver it and burn it, as far as I am concerned you do not have the coal. The reason you cannot mine it or burn it is because we have air quality standards and land use standards which I endorse but some of them are most unrealistic and are in advance of the available technology to clean up the gases in the flue, to scrub the gases or to do whatever else is necessary to clean up coal.

IMPORTANCE OF NATIONAL GAS SURVEY

On page 9, I emphasize the National Gas Survey because I believe this is a very important aspect of our Commission's regulation.

For fiscal year 1975 this survey will consist of two parts. First, the major undertaking requiring a majority of the requested positions will be the independent continuing analysis of the Nation's natural gas reserves. This is a continuing analysis by the FPC staff and some consultants retained by the FPC, to determine the status of the Nation's gas reserves so that we will be able to determine on a continuing basis what the level of reserves are, whether our policies are eliciting the reserves to meet demand, or whether our policies are simply drying up our gas resources, and not developing the magnitude of exploration development program that we require.

The second part of the survey will involve an examination of the primary and fundamental issues that affect regulation, as well as the ability of industry under regulation to meet the demands of consumers and to serve the interests of the Nation.

NATIONAL GAS SURVEY ISSUES

In addition to the issues of conservation, rate design, research, and finance, I include import-export policy. We do have exclusive jurisdiction over the import of liquefied natural gas from foreign nations and overland pipeline transport from Canada and Mexico. Export-import policy as it affects the supplementary sources of gas is becoming increasingly important due to our own national emergency so far as gas and other fuels are concerned. Import-export policy therefore should be examined.

Other subjects for evaluation are environmental impact, availability of substitutable fuels and evaluation of various methods of attaining our capacity for self-sufficiency.

PRIMARY RESOURCES USED TO GENERATE ELECTRICITY

I have noted on page 10 of my statement that about 25 percent of all energy resources in the United States were used in the generation of electricity. That was in 1972. It is about the same now. This percentage will grow. By 1980, it will be at least 30 percent, by 1990, over 40.

Our latest projection would increase this estimated use to more than 50 percent by the year 2000 with conservative assumptions of electric power growth. Eighty percent of electricity today is derived from fossil fuel—coal, oil, natural gas. The adequacy of the Nation's electric power supply is therefore critically dependent on maintaining an adequate supply of these fuels.

In recent years because there has been a developing shortage of fossil fuels we have implemented a series of programs to define and anticipate fuel problems and devise corrective actions. With the rise of environmental concerns there have been restrictions on the use of fuels. As I mentioned earlier, what I might term economic accessibility of fuels which may be available physically in abundance but where Government requirements restrict the availability of these fuels to be used either in electric power generation or directly to serve consumers in the United States.

COAL DATA GATHERED BY FPC

Since 1972 we have been gathering and publishing information on the cost and quality of fuel purchases by electric utilities. This shows regional trends in fuel costs and relationship of sulfur content to the price of fuels. It is the only source, incidentally, that I know of in the Federal Government of the price that is paid by particular industries for fuels.

Since electric utilities consume 25 percent of our primary resources we gather the prices at each plant location by the quality of the fuel. We can therefore determine how the prices relate to each other by translating barrels of oil into a Btu equivalent per Mcf of gas or tons of coal. With the enactment of the Emergency Petroleum Allocation Act discussed on pages 11 and 12 of my statement, we have undertaken to compute requirements for residual fuel oil by all utilities—electric utilities—in the United States. This is a computerized program that we established. Fortunately we started accumulating information on electric utility fuel needs at the end of 1973, when the mandatory allocation bill was passed by the Congress, so that we were in a position to provide the utilities' requirements for residual fuel oil to the Federal Energy Office. We have done so. We continue to do so.

ASSISTANCE TO FEDERAL ENERGY OFFICE

The Federal Energy Office has the final responsibility as to the allocation of fuels; basically they have followed what we have recommended 95 to 99 percent of the time, I would say. Where there are exceptions we have them examined by our staff and the reasons for such are identified. We have had investigations. Consolidated Edison was one and there were others—as to whether or not they were squirreling away a little bit more fuel than they needed.

We have ways of checking utility estimates. We did find that Consolidated Edison's first request included fuel for both electricity generation and steam heating.

GAS SUPPLY ESTIMATES OF OIL COMPANIES

Mr. EVINS. In your statement you indicate that you found less gas supplies than the oil companies reported themselves.

Mr. NASSIKAS. We had a joint Office of Economics and Bureau of Natural Gas study of the natural gas reserves in south Louisiana. The one you are talking about is referred to on page 8 of my statement. I will refer to south Louisiana in a minute.

At the bottom of page 8 I refer to the report of gas reserves published in 1973 dealing with gas reserves as of December 1970. Our study showed that the proved reserves in the United States were 258.6 trillion cubic feet compared to American Gas Association of 286.7 trillion cubic feet. In other words, we found there were about 10 percent less reserves according to our independent staff study than were reported by AGA on a national basis.

Now let me refer, if I may, to natural gas reserves in south Louisiana. I do not think such a reference is in my statement.

Our staff conducted a study—that is, our Office of Economics and Bureau of Natural Gas jointly—of the reserves in the Outer Continental Shelf, south Louisiana, as reported to our staff and based upon their examination of reserves in pipeline certificate cases.

NATIONAL RATE FOR PRODUCERS OF NATURAL GAS

We found that for some 31 leases examined out of a larger total, that our staff finding of reserves was 1.7 trillion cubic feet more than reported as new reserves by the American Gas Association for all of South Louisiana for the years 1971 and 1972.

As a result of this study—and we have this in detail—we have issued a public notice in our docket No. R-389(B) national rulemaking. In this rulemaking we are attempting to prescribe one uniform national gas producer rate for all areas of the United States—we issued a notice including the staff report and some other issues were renoticed in that proceeding, to secure comments as to whether or not there was any way of reconciling these estimates. This proceeding is now in process.

NATURAL GAS RESERVES

The national study showed 10 percent less. This specific study as to one area as to specific leases for these years, 1971-72, showed, in effect, that our estimate of reserves was higher than in fact had been reported by the American Gas Association. We intend to follow that through to its conclusion.

NATIONAL POWER SURVEY

We have a National Power Survey underway to which I refer at the bottom of page 12 of my statement. We issued our last power survey report in 1970. The next one will concentrate on fundamental issues of the day more than did the 1970 survey which was, incidently, issued in 1972.

CONSERVATION OF ENERGY

We are studying, and we have almost completed these studies. The studies include an examination of conservation and the extent to which conservation is feasible and the extent to which new efficiencies can be developed and implemented by electric utilities at the point of production and consumption, considering power loads, usage, and all related factors.

POWER SUPPLY

Power supply is a very fundamental aspect of any electric utility planning. We deal with the following questions, to name a few. What kind of capacity do you need? What kind of fuel should you burn in the light of availability, future standards, efficient use of fuels and interconnections as between power pools and system? These are aspects of the new survey.

FINANCE AND R. & D.

Finance always is a problem, whether it is in Government or private utilities. We are participating in an in-depth study of research and development. Guyford Stever, Director of the National Science Foundation, has been the chairman of that particular study. We recently organized another technical advisory committee which is studying the impact of an inadequate electric power supply. This is basically an economic study whereby under various assumptions we would determine what impact on our economy, on the environment, on various goals that we may have as a nation, would various level of electric power supply have and what are the substitutes in the event you have less electric power than is necessary to meet the essential needs of society.

HYDROELECTRIC SITES

With respect to hydroelectric sites referred to on page 14, of my statement, we are continuing to study available hydroelectric sites to determine where we might have some additional non-Federal sites. As you know, we do not have jurisdiction over the Federal projects. Nevertheless we are called on to comment on the Federal projects by the Corps of Engineers and by others. Also, we also are working closely with utilities to transmit power from some of the fuel surplus regions—not real surplus—but the ones that have a little more fuel than others, such as parts of the southern region and Ohio, and then going to Wisconsin.

INTERCHANGE OF ELECTRIC POWER AND CONSERVATION

It is a great circle down to South Carolina. Facilities which are largely powered by coal, and as to Commonwealth Edison in Chicago by nuclear, transmit power off-peak, after the hours of 10 o'clock in the evening until morning and on weekends to the New England utilities and New York utilities.

The concept is that we will in effect, transmit coal and nuclear energy by wire to conserve the residual fuel oil that is necessary to meet about 50 percent of the total generating requirements of the utilities in the northeastern part of the United States, north of Washington, D.C. to Maine. In New England 73 percent of power genera-

tion is by oil; Middle Atlantic, 37 percent oil; Maryland and Delaware, 55 percent oil.

This program has been quite successful in conserving fuel. Future protections show that up to 200,000 barrels of residual fuel daily could be saved once we convert all the plants back to coal, that can be converted. The transmission of electricity by wire is far more modest than that. A round figure for the maximum capability might be 35,000 barrels of residual fuel daily. We also have requested all utilities to try to reduce electric power consumption by 10 percent on a nationwide basis. Some have been more successful than 10 percent, some have been less.

Overall, because of very favorable weather conditions, as well as some other Government policies which I believe have been constructive, and the utility policies, to try to reduce fuel consumption, and above all, I would say, because of the response of the consumers of the United States—the people who use electricity—the conservation program this winter was quite successful. The Chief Engineer's Office of the Federal Power Commission referred to on pages 15, 16, and 17—is a really new office, Mr. Chairman, and gentlemen, where the virtually exclusive responsibility is assigned to concentrate on energy conservation and methods of more efficiently utilizing electric power and natural gas, both at the point of production through transmission, and at the point of consumption.

OFFICE OF THE CHIEF ENGINEER AND CONSERVATION

This office is a small office. It has modest beginnings. I have great confidence and optimism in the potential of this small office to assist in establishing programs useful to our regulated companies, and in cooperation with other Government agencies that will conserve fuel and yet will not retard the growth of our economy. That is the objective of the conservation program.

Dr. Charles Berg heads this office.

U.S. SUPREME COURT DECISION ON ANNUAL ASSESSMENTS

Mr. EVINS. Have any of your orders been thrown out by the courts as illegal and improper?

Mr. NASSIKAS. Which orders have been thrown out as illegal and improper? Most of our orders have been affirmed.

Mr. EVINS. I am referring to the one in which you increased your fees.

Mr. NASSIKAS. Too bad there is not an appeal from the U.S. Supreme Court. The only appeal we now have is to the Congress, Mr. Chairman. I have already prepared legislation to give the Commission authority to assess the charges disallowed by the Supreme Court decision. As the Supreme Court ruling overturned our annual assessments levied on natural gas and electric power companies for the cost of regulation.

As to specific benefits, our licensing, of pipeline certificates and hydroelectric projects was affirmed. The impact of the Supreme Court's overturning our annual assessments means a reduction of about \$13 million in the \$20 million that we show under Source and Application of Funds at page 1-8 of the budget. So that it is substantial. Out of \$20 million forecast in 1975, a total of \$13 million is disallowed as a result of that Supreme Court decision.

The legislation which I have already proposed—and I stated this to you, Mr. Chairman, 3 years ago, I am very happy I did—I indicated then that in the event our decision was set aside by the Court that I would file legislation that I would request the Congress to give us legislation which would enable us to charge under the Gas Act and the Power Act the fees that are necessary to fund our operation. I have prepared that legislation. I have submitted it to OMB. It is being reviewed by them now. The U.S. Supreme Court decision came down in March. I would hope that we might get a bill to the Congress during this session of the Congress. I think we should. I believe that we should be in a position and the Congress should give us that authority to fund virtually our entire operation from the assessments paid by the regulated companies and utilities. There are public benefits to regulating industry which I believe should be borne by industry.

Mr. EVINS. Mr. Chairman, I would throw out a personal point of view. I for one will support your proposals. I think the climate was never more appropriate in the Congress than right now. We are facing this energy crisis. This is a long-range energy problem. You spoke about your Division for Conservation and Cooperation. Of course, the American people have been concerned. The American people have cooperated. The President has called for all of us to use less electricity. The Governors of the States, particularly in the Northwest, have had conservation programs.

CONSERVATION OF ENERGY PROGRAM

Mr. NASSIKAS. Excellent programs.

Mr. EVINS. I think all agencies are working toward this matter of conservation. I think there has been a high degree of cooperation. I think there is nothing that the country has been more concerned with than this energy problem.

Some wonder if it is real or phony. You hear stories that there is enough coal for centuries. Ralph Nader has said that we are drowning in oil and certain sections of the country have an abundance of electricity. He proposes slowing down nuclear power production.

The country has responded to the conservation measures. When you begin to tighten down a bit, and charge these companies a few fees, they sue you in court and get the money returned.

You have some tough companies to deal with.

Mr. NASSIKAS. We have some cases before us right now as to that very issue where increases have been requested in order that the charges of utilities can be paid, arising from reduced electric power use by consumers who have conserved, and the utilities now ask higher fees for less power.

This issue is being examined. It is really a national issue rather than a regional issue, although right now it immediately concerns the northern part of the United States. We expect to get more applications for this kind of rate treatment. We are attempting to review our rate design policies outside of the context of these cases, as well as within the context of these cases. We expect to be able to do something in relation to rate design as to an equitable distribution of the burden. It is part of our responsibility. We will try to carry it out.

ANNUAL CHARGES

Mr. EVINS. What impact does the March 4 decision by the Supreme Court, which upheld the circuit court of appeals with regard to annual assessments, have on your revenues?

Mr. NASSIKAS. As a result of that decision the amount of annual charges collected pursuant to order No. 427, and held in special deposit, must be refunded. Funds now held in this special deposit total \$2,444,568.40.

In the 3 fiscal years 1973, 1974, and 1975 we had estimated revenues totaling \$65,444,147. The Supreme Court decision will reduce these revenues by an estimated \$22,949,046 to \$42,495,101. These revenues, of course, would be deposited in the miscellaneous receipts account of the U.S. Treasury.

SUPPLY OF COAL, ELECTRICITY, AND NATURAL GAS

Mr. EVINS. What is the situation, for the record, as to the supply of coal, the supply of electricity, the supply of natural gas? Where do we stand on all three?

FINDING TO PRODUCTION RATIO OF NATURAL GAS

Mr. NASSIKAS. As to natural gas, we have had 5 successive years in which we have used more than double the gas than we have added to reserves. The finding to production ratio on average the last 5 years is a little less than 0.5. The latest report by AGA—I don't accept this as necessarily the fact, but this is a report by AGA—the latest report of year-end figures in 1973 shows that the findings to production ratio was 0.3. That is, we use three times as much gas as we added by reserves in the year 1973 and the additions to the reserves, after negative revisions, are less than 7 trillion cubic feet.

We are down to a level of reserves over 50 trillion cubic feet less than we were 6 years ago. So the trends are dismal indeed. We find apart from what AGA reports, from our own form 15 and our own in-depth examination of pipeline certificates that there is an increasing and pervasive and deepening shortage of natural gas throughout the United States. In our curtailment proceedings that I mentioned earlier, the reduction of 10 percent in meeting firm demand, some of our major pipeline companies are curtailing in excess of one-third of their firm demand. When you curtail gas demand there has to be some substitutable fuel or a reference of that demand that cannot be met to some other fuel. If the other fuels are in short supply or are not substitutable then you have a problem that is simply a question of unemployment, of reducing industrial production, which none of us wants. That is where we stand on gas as of the moment.

ALASKA NATURAL GAS

Mr. EVINS. According to the statistics, the supply of natural gas has been declining relative to increasing demand. What hope is there for significantly expanded production from the North Slope of Alaska or expanded offshore drilling?

Mr. NASSIKAS. Gas reserves on the North Slope of Alaska, currently estimated at 31.6 trillion cubic feet, will probably become available to the "lower 48" market sometime in 1979. One application has already been filed with the FPC for construction of a gas pipeline through Canada which would transport Alaskan gas for United States consumption as well as Canadian gas for both Canadian and United States consumption. This project is jointly sponsored by Alaskan Arctic Gas Pipeline Co. and Canadian Arctic Gas Pipeline Ltd. and, if approved, will ultimately provide deliveries of over 4 billion cubic feet per day, or about 1.5 trillion cubic feet per year, mostly to the "lower 48." It is expected that another project financed by El Paso Natural Gas Co. will be presented to the FPC for certification this summer. The gas line herein proposed would carry gas from the North Slope to Valdez on the Southern coast, whence it would be transported via LNG ships to a facility to be constructed in Oregon.

Expanded offshore drilling offers one of our best hopes to improve our domestic natural gas supply. The recently announced goal of expanding leasing of OCS lands to a level of 10 million acres yearly will surely set the stage for expanded exploration. The remaining proved reserves in these areas are in the neighborhood of 35 trillion cubic feet, while potential supply is estimated at over 350 trillion cubic feet by the most conservative estimate. The assemblage of the manpower and materials to explore and develop our offshore areas will, however, be a formidable task.

IMPORTING LNG

Mr. EVINS. Last year we discussed the importing of liquefied natural gas to supplement and augment the Nation's natural gas supply. Does the administration's goal of energy self-sufficiency change your estimate of the role of imported natural gas in meeting America's energy needs?

Mr. NASSIKAS. We believe a capacity for self-sufficiency means that we must obtain a national energy posture so that a loss of foreign energy supplies can be accommodated by the Nation without undue economic and lifestyle disruptions. Such a posture will probably include a combination of energy storage and energy conservation, domestic production acceleration, fuels reallocation contingency plans, and supplementary energy resource development. Certainly we should not become overly dependent on foreign energy supplies but, this does not necessarily mean we should go to the other extreme of energy isolation.

We will need in the future all of the supplies of natural gas, from whatever source, that we can obtain. It is doubtful that we will attain self-sufficiency within the framework of completely satisfied demand within the targeted date of 1980, and perhaps not even by 1985. However, even when we do achieve the capability for self-sufficiency, it might be well to continue importing supplemental supplies so as to prolong our domestic resources. It is currently estimated that about 4 trillion cubic feet of natural gas are vented to the atmosphere in northern Africa alone each year. The United States should strive to secure those supplies for its markets.

INCENTIVE FOR EXPLORATION

Mr. EVINS. The major reason cited for granting increased prices for natural gas is the need for increased funds for corporations to explore for and develop new natural gas fields. What has been the recent experience with regard to expanded exploration for natural gas?

Mr. NASSIKAS. The Commission's pricing policies, as well as greatly expanded lease sales in the Federal domain, have resulted in a substantial turnaround in the exploratory drilling effort in the lower 48 States. Gas exploratory drilling in 1973 increased by 34 percent over 1972 which in turn increased by 38 percent over 1971. In fact, 1972 marked the turnaround in gas exploratory drilling activity. The number of exploratory gas wells increased by an impressive 50 percent in 1973 after registering a 37-percent increase in 1972. Total gas wells drilled in 1973 increased by over 29 percent over 1972, while footage drilled increased by 33 percent. The respective increases in 1972 over 1971 were 29 and 18 percent.

CONSERVING NATURAL GAS

Mr. EVINS. What is the potential of energy conservation in helping to alleviate the energy crisis?

Mr. NASSIKAS. By energy conservation, we mean more efficient use of natural gas and electric power and the elimination of wasteful uses. The potential for conservation of natural gas and the fuels required for electric power generation is not known with great precision; one of the objectives of our conservation research effort is to provide the Commission with precise information on this subject. However, studies conducted by our staff have turned up individual cases in which industrial gas consumption can be reduced by 10 to 30 percent, without sacrifice of productivity and without unjustifiable costs. We know of cases in which residential consumption of gas can be reduced by 20 percent, and more, without sacrifice or discomfort to the homeowner. Similar data have been turned up for the use of electric power. Although a great deal of research is still required to determine the exact extent to which conservation measures may reduce the requirement for fuels, the evidence we have now indicates that it may be possible to reduce fuel consumption by 20 percent, or even more, by improving the efficiency of fuel and power use. This level of reduction in the demand for fuel would be of immense importance in resolving the energy crisis—particularly the growing shortages of natural gas. As I have said earlier, with accurate information to go on in this area, the Commission can stimulate the implementation of technology for more efficient fuel use, through its regulatory authority.

PROSPECTIVE SHORTAGE OF COAL SUPPLY

Mr. EVINS. What about the coal supply situation?

Mr. NASSIKAS. As to coal, while the inventories of electric utilities are adequate for the moment to meet short-term demand, many of the utilities have already seen decreases in inventories. Our staff has examined this to see if the utilities are getting down below acceptable levels necessary to safely conduct their operations. Their problem is not the existing coal pile but rather their inability to obtain

deliveries on their contracts. This current situation may be due to labor. It may be due to management. It may be due to Government standards, or perhaps to all three. To mine the quality of coal that is needed to meet air quality standards, they are having an extremely difficult time. They cannot, in my opinion, mine adequate coal to meet their air quality standards as they now stand. As to the primary ambient air quality standards, I am hopeful these can be met. But it probably will be necessary to adopt supplemental control systems regulations in addition to the present emission regulations to achieve primary ambient air quality standards nationally.

RESERVES OF OIL

As to oil, we have a decline at least as to reported reserves of oil, domestic reserves in the United States. We have a shortage of refining capacity in the United States also.

NATIONAL ENERGY EMERGENCY

The Arab embargo was not the proximate cause of a national emergency. The national energy emergency was with us before the Arab embargo, in my opinion. The way I define an emergency is not whether we are going to get through a winter, but whether we can plan as a Nation, and whether the energy systems and managements can plan to meet the demand requirements that will meet the requirement of a growing economy. By that definition we were in a national energy emergency long before the Arab embargo hit us. The Arab embargo now is documented somewhere around a million barrels of crude daily and almost a million barrels of product—not quite, 750,000 barrels of oil.

When we consider that our daily usage is 18 million barrels daily, then we find that the Arab embargo affected about one-ninth or 11 or 12 percent of our requirements. We imported in 1973 from the Arab nations about 9 percent of our overall domestic requirements. This is counting the impact of the embargo for that last 6 weeks. We imported from non-Arab nations around 28 percent for a total of 37 percent of our total oil requirements from Arab nations. I would like to emphasize one point before concluding this aspect of my answer. We will have to rely on two primary sources in the United States in my opinion to supply the gap between supply and demand for energy over the course of the next decades. Let us say just a decade. One is imports. Even though we are striving for a capacity for self-sufficiency within the decade, until we can attain that happy stage sometime in the next 20 to 30 years, we will have to import and import from the Middle Eastern countries as well as from African countries, Western Hemisphere and Indonesia and the others.

CONSERVATION OF ENERGY

Secondly, conservation should be a habit that should be ingrained in our thinking. We should all do this, but primarily in conservation not simply the residential uses. Residential users can save, but primarily in conservation through the large efficiencies that can be determined and developed by large users of energy, whether it is electric power, gas, oil or coal.

SLIPPAGE IN NUCEAR GENERATION OF ELECTRIC POWER

Mr. EVINS. What about the slippage of nuclear plants?

Mr. NASSIKAS. As to nuclear the slippage by the last count by our Bureau of Power was between 27,000 to 28,000 megawatts. This slippage has increased slightly over what it was last year. It was around 24,000 to 25,000 megawatts. But I think perhaps we may be able to turn that trend around sometimes in the course of the next 2 years. How much is 28,000 megawatts?

It is about all the capacity that we have from Washington, D.C., to New York and we better throw in southern New Hampshire, Maine and southern Vermont and the Berkshire area of Massachusetts. That is a lot of power we are dealing in where we do not have it in nuclear. Let me give you one more point if I may on nuclear. I found this is a very interesting indication of how you can conserve fossil fuel resources. A 1,000 megawatt nuclear plant, operating for 1 year—let us say, at 70 percent capacity factor, because our engineers are very optimistic, although I think they are high on 70 percent since there is a lot of down time on nuclear that they do not seem to recognize no matter how many times I discuss it—that would produce 6,130,000 megawatt hours. The equivalent fossil fuel requirements in 1 year on these assumptions would be 11 million barrels of oil, 65 billion cubic feet of gas, and 2,800,000 tons of coal.

In 25 years, which I think is a fair analogy, assuming that would be the useful life of a typical unit today, at an average—you see how the engineers go down as they increase—0.6 capacity factor. The downtime gets more the older the plant gets when you work the kinks out. It would produce 131 million megawatt hours. The equivalent fossil fuel requirement for 25 years would be 235 million barrels of oil, 1.3 trillion cubic feet of gas—which is more than all the gas that we import from Canada annually—and 59,700,000 tons of coal. That amount is about 10 percent of our coal production this last year. We are talking of large quantities of fossil fuels that can be conserved if we build nuclear plants.

MEASURES TO ALLEVIATE THE ENERGY SHORTAGE

Mr. EVINS. This is all very informative and most interesting. We have to continue to import oil for quite awhile. We have to ingrain in our system matters of conservation. We have to speed up nuclear power production. What do you recommend for the future?

Mr. NASSIKAS. No. 1, I believe we should use much more coal as a percentage than we have been using. I believe that new plants that are built should be built for coal rather than oil or gas fired to the extent that we can; as I said, an acceleration of the nuclear program. By these two expedients we can use domestic resources to fuel primarily our electric utility plants, which are destined to consume 50 percent of primary energy sources by the year 2000.

POTENTIAL HYDROELECTRIC CAPACITY

Mr. EVINS. You make a point in your statement that there are a lot of places where there is a great potential for increased capacity. What

is the Commission doing to encourage the private utilities to install additional capacity at their existing facilities?

Mr. NASSIKAS. We are trying to utilize existing facilities rather than new sites to the extent possible.

Mr. EVINS. Take the local utility, Pepco, for example, are they going to build more hydroelectric powerplants, are they going to have steam powerplants installed in the system, or are they going nuclear? Do they confer with you about their problems or do you make known to them these potential sites you surveyed?

Mr. NASSIKAS. Yes, this is done in various ways. One important way is through the National Electric Council and 10 regional councils, and one in Canada. There is direct staff work through these councils and with the utilities. Reports are filed by the utilities. We are informed of what their plans are.

There is an exchange of ideas.

PENDING HYDROELECTRIC APPLICATIONS FOR NEW CAPACITY

Mr. EVINS. Are there any applications pending with the Commission for new installed capacity?

Mr. NASSIKAS. With respect to hydroelectric, yes. Of course, we do not have licensing authority over nuclear or fossil fuel plants. We have some substantial applications before us. I do not have the exact figure. There are some major projects that have been pending for some time. Let me give you as an example the Blue Ridge project. There is some legislation now pending before the Congress on that particular project which has been before the Commission for 6 to 7 years. For various reasons the Commission has received reams of evidence concerning this project because the case has been reopened several times. We are about in a position now to issue a decision.

OTHER ADDITIONAL HYDROELECTRIC CAPACITY

Mr. EVINS. If the FPC finds that a private utility has additional capacity, shouldn't they install that additional capacity on your advice?

Mr. NASSIKAS. They can on hydroelectric which the Commission licenses. The *Storm King* case is a classic. That started in 1963. It still is not constructed even though it has gone to the Supreme Court and back again and is now appealed to the Second Circuit. Many projects have involved pumped storage. Between pumped storage and conventional hydro, in round figures, there would be 100,000 to 120,000 megawatts of capacity that could be installed in the next 7 to 8 years. That is a lot of power when you consider that the total installed capacity in the United States is 430,000 megawatts. Another 25 percent could be added to that by hydro. However, I want to emphasize, we cannot license hydro projects if we have restrictive legislation by the Congress which prevents us from licensing.

DEREGULATION OF NATURAL GAS PRODUCERS

Mr. EVINS. The Congress wants to be helpful in most cases, but there is one area in which you have not convinced me. I will address myself to that now and see if you want to sell me again on deregulation. The Chairman of FPC is a very knowledgeable and informed man, but I

have not been sold on the idea that you ought to deregulate natural gas prices. The Congress has seen fit to regulate natural gas over the years. I think you must have sold the President on the deregulation of natural gas.

Mr. NASSIKAS. I have not seen the President for some time.

Mr. EVINS. You have not sold me, as one individual. Tell us, should we continue regulation of natural gas or in your view should there be deregulation in view of the energy crisis? It seems to me to the contrary. Now that we have the crisis this is the time to look over the shoulders of these large companies.

DEREGULATION OF NATURAL GAS PRODUCERS WITH MONITORING

Mr. NASSIKAS. May I answer your question this way: I believe we should continue regulating gas under flowing gas contracts, that we should deregulate new gas supplies committed to the interstate market, whether these new gas supplies are from the further exploration of flowing gas wells or whether they are newly dedicated from the intrastate market or newly dedicated from the Federal domain—from whatever source. I also believe that we should continue an overview, in effect, of the impact of deregulation along these lines. Impact—how?

What volumes are committed? At what price? From what areas? From what region, that we should file reports with the Congress as to the effectiveness of that experiment? That, secondly, there should also continue to be regulation in the sense of strict enforcement of anti-trust laws if we deregulate new gas. There should also be regulation by the Federal Trade Commission through enforcement of their responsibilities. I do not go along with the so-called administration bill that would deregulate new gas without an overview, that would eliminate our abandonment authority, that is, to determine the rate on a renegotiating flowing gas contract covering a previously dedicated well. Also we should retain the right to renew the reasonableness of purchase gas costs by regulated pipelines. They would have to get clearance from us before that is done. I do not believe we should simply deregulate new gas without the safeguards that I have mentioned.

REIMPOSITION OF REGULATION OF NATURAL GAS PRODUCERS

Finally—and this is perhaps the single most important point of all—there should also be the power granted to the Federal Power Commission for 3-5 years to reimpose controls in the event that we get into runaway prices to protect the public interests. There are standards that are set up on this in the administration bill where initially that authority was delegated to the Secretary of the Interior.

I don't know what the administration's current view is on this. I am telling you what my views are as chairman of an independent regulatory agency. I do not agree with this detail of the administration's bill. I do agree with the concept of deregulating new gas but continuing our regulation and under the concept that I am expressing to you the Federal Power Commission will be regulating natural gas for a good many years to come.

Mr. EVINS. Your position is that you might experiment somewhat with deregulation of natural gas from new explorations, but under flowing contracts, these would continue under regulation in interstate commerce.

Mr. NASSIKAS. Yes.

Mr. EVINS. Did you mention earlier that you want regulation by the Federal Trade Commission?

Mr. NASSIKAS. I do not think I was clear on that point. Antitrust enforcement is a form of regulation. To the extent the Federal Trade Commission is delegated authority by Congress in that area they ought to carry it out.

Mr. EVINS. The primary and principal responsibility for regulation rests with the Federal Power Commission, I know the Federal Trade Commission has antitrust powers but I do not know how extensively they are using it.

Mr. NASSIKAS. We have authority in our cases to determine anti-competitive effects. We do not have authority to determine whether or not there are violations of the—criminal violations—of the anti-trust laws. Incidentally, as far as I am concerned, I think it would be a far better and superior way to regulate if the Federal Power Commission were given plenary jurisdiction over antitrust effects for regulated utilities, instead of having this dichotomy between the Federal Power Commission and the Federal Trade Commission.

I realize how controversial the suggestion is. I made this through the years and I will continue to make it because I think it is right.

NATURAL GAS RATES

Mr. EVINS. Is the constant and rapid increase of prices for natural gas and other forms of energy simply inevitable, or are there any favorable developments which may offer the consumer some hope of relief?

Mr. NASSIKAS. The availability and prices of gas and electric service have become matters of widespread public concern during recent months as the public has listened to persistent appeals to conserve energy and has seen the prices of gas and electric energy rise more rapidly than ever before. The increases in gas and electric prices that have occurred and the causes of the current situation including energy conservation are related to the revenue requirement of the utilities, the role of rate design in energy conservation, and the outlook for the future. In general, my conclusions are that we have a long way to go to achieve the President's goal of energy independence for the United States by the 1980's and that we can expect substantial further increases in the prices of gas and electricity in 1974 and beyond.

The 1960's was a decade of relatively stable rates for electricity with a slightly downward trend reversing in about 1967 and increasing at an increasing rate since that time. By the end of 1972 residential rates had increased 15-19 percent above the 1967-68 level, while commercial rates had increased 18-23 percent and industrial rates 25-28 percent over the same period of time. During 1973 these rates continued to increase; the residential rate increase for that year was more than 7 percent. This is equivalent to at least a doubling of rates every 10 years. In some sections of the country, particularly in California and

in the Northeast, where oil is an important fuel for electricity generation, the rates of increase over the past year have been much greater. For example, the increase in Los Angeles was nearly 28 percent while rates in New York City increased by nearly 50 percent.

The principal cause of these rate increases over the past year seems to have been increases in price paid for fuels used for electricity generation, especially oil prices. For example, during the year ended January 1974, the price of oil purchased by Consolidated Edison Co., serving the city of New York, approximately tripled, while in New England and in California oil prices doubled. As a result of the widespread existence of fuel cost adjustment clauses under which electric utilities are able to automatically and almost immediately pass on to customers changes in the price of fuel used for generation, the escalating fuel costs have been rapidly reflected in the bills paid by consumers of electricity. For example, about 75 percent of the increase in the price of residential electricity in New York during the year ended February 15, 1974, was attributable to fuel adjustment clauses as compared with about 38 percent in Los Angeles and about 67 percent in Boston.

Currently natural gas is sold at the wellhead to interstate pipeline companies representing 70 percent of the national market at an average price of 25 cents per thousand cubic feet. A staff study prepared at my request shows that natural gas committed to the interstate market under all pricing procedures during 1971-73 totaled 3.1 trillion cubic feet at an average price of 32.85 cents per thousand cubic feet. The price of new gas commitments to the interstate market ranged on average from 28.41 cents in 1971, 29.67 cents in 1972, to 39.35 cents per thousand cubic feet in 1973. During the same period long range dedications under area rates declined from 52 percent of new commitments in 1971 to 44 percent in 1972 and down to 25 percent in 1973. As a result of our releasing small producers from area ceilings in 1971, there were additional long range dedications of small producer sales to the interstate market in 1972 approximating 19 percent of new commitment [231 billion cubic feet of 1,206 billion cubic feet], and in 1973 to almost 10 percent of new commitments [107 billion cubic feet out of 1,116 billion cubic feet].

With respect to our regulation of the transportation and sale for resale of natural gas in interstate commerce, the most significant development in this area of our jurisdiction is our adoption of Opinion No. 671 on October 31, 1973 (United Gas Pipeline), in which we departed from the traditional Atlantic Seaboard rate design used by most pipelines since 1952, in favor of a design giving less weight to large volume users. This and other recent actions of the Commission reflect our efforts to minimize and equalize the effects of the natural gas shortage. For example, in light of the present demand for natural gas (as well as all other energy supplies for that matter) and our limited supply of this valuable resource the Commission has undertaken a review in individual cases of the pricing mechanisms of interstate pipelines with the objective of establishing pricing policies to insure the conservation and fairest allocation of existing supplies.

In addition, we have adopted incremental pricing for pipeline sales of LNG and synthetic gas (SNG) supplements. The incremental approach assesses the costs of the project to those who receive the benefit

of the new forms of gas. Thus those who do not benefit do not subsidize those who do. On the other hand, some of the advantages of rolled-in pricing are (1) there is displacement of conventional gas to enable service to meet existing contract demands, (2) load factors are markedly improved, (3) there is a beneficial cash flow enabling the pipelines to provide better facilities and service to all customers, (4) there are reduced capital costs to the extent pipelines have improved overall financial conditions upon which investment risk is measured, and (5) the LNG supplement to gas supply will reduce the reliance on other fuels which are less advantageous in meeting our environmental objectives.

The Commission will face many important gas pipeline rate questions in the future. Besides addressing the continuing questions of appropriate fixed cost allocations, the FPC will be faced with questions pertaining to the further development and application of its incremental approach, the determination of who should pay for idle pipeline capacity in periods of curtailment, and the desirability of various automatic adjustment clauses which would depart from our normal test year approach for setting rates. The resolution of these issues will depend upon the applicability of the Commission's regulatory standards and objectives and in part on the specifics of each case as it comes before us.

PRODUCER RATES

Mr. EVINS. Last year you informed the committee about FPC's action to allow producers to apply for special relief from area rates to induce the recovery of natural gas which would otherwise be flared or vented. What has been your experience of the past year in this regard?

Mr. NASSIKAS. Commission Order No. 482, which provides for special relief from area rates to induce recovery of gas which would otherwise be flared or vented, was issued on April 12, 1973. Since that time three requests for special relief have been filed thereunder. We have granted two of these requests. The third is still under staff review. However, under the provisions of our Order No. 481, also issued on April 12, 1973, which provides for special relief in instances where reduced pressures, the need for reconditioning, for deeper drilling or other factors make further production uneconomical, 38 requests for special relief had been received as of April 1, 1974. Of these, 15 were filed to reflect the cost of compression, 6 were filed because of the need to drill new or substitute wells or rework existing wells and six filings involved saltwater disposal. The remainder of the requests were filed to cover various other needs. Nineteen of these requests have been approved, 6 withdrawn for various reasons and one rejected. The remainder of these requests are currently under staff review.

DEREGULATION OF NATURAL GAS SUPPLIES

Mr. EVINS. What is the current status of congressional consideration of deregulation proposals?

Mr. NASSIKAS. The Senate Committee on Commerce which has oversight of this Commission has been holding hearings at which various bills which would provide inter alia for deregulation of producer

price controls were the subject of consideration. There have been no hearings by the House Committee. The bills were of various types. One called for total deregulation (H.R. 3299, S. 371); others for deregulation of new gas (H.R. 7507, H.R. 2553, H.R. 480, H.R. 10638, S. 2048, S. 1549, and S. 2305), and for the deregulation only of small producers (S. 2143 and S. 2506). I testified before the Senate Committee on Commerce on October 11, 1973, and briefly commented on these legislative proposals. The committee has not reported on any of said bills as of this date.

Mr. EVINS. In your estimate, what would be the approximate level of rate increases if natural gas should be deregulated?

Mr. NASSIKAS. Assuming that new supplies of gas are deregulated, I would expect to see the price of such gas at the wellhead approach the competitive price levels of other fuels. This would result in new supplies of gas, that were previously considered either uneconomical to develop or marginal prospects, becoming available.

Mr. EVINS. The FPC has been granting a number of substantial rate increases recently in the area of natural gas. Why shouldn't the present regulatory system, which allows some control over prices, continue as opposed to deregulation of "new" natural gas?

Mr. NASSIKAS. The Commission in being charged with enforcing the Natural Gas Act, regulates wellhead gas prices predominantly upon cost evidence. However, its pricing policies have been among the contributing factors which artificially increased the demand for natural gas, reduced proven inventories to improvident levels to the detriment of our national energy interests, created deliverability problems, permitted gas utilization to less efficient end uses, and restricted the capital formation within the private enterprise system required to find and develop new gas supplies. Because of the energy situation, competitive fuels which otherwise could fill the gap are in short supply. Deregulation of "new" gas, together with a realistic Department of Interior timetable for leasing Outer Continental Shelf acreage, should provide the needed incentive to accelerate drilling for new supplies of gas.

PUBLIC VIEW ON DEREGULATION

Mr. EVINS. Recently, much of the general public and political sentiment appears to be moving toward the direction of a need for more regulation of the oil and "energy" companies. Do you feel that the Administration's proposal to deregulate natural gas is inconsistent with what the general public perceives as to what should be done in this situation?

Mr. NASSIKAS. Deregulation of new gas supplies would, in my view, be an effective stimulus to the industry's search for new reserves and encourage their development and commitment to the interstate market if in a competitive atmosphere, and I stated before the subcommittee on Antitrust and Monopoly of the Senate Judiciary Committee on June 26, 1973, that:

From my analysis, I would conclude that there is credible evidence to support the thesis that workable competition exists in the natural gas producing industry. * * * I further find no evidence of anticompetitive conduct by producers vis-a-vis the structure of the industry. I recognize there is some evidence of structural imperfections in the

industry, but not to the extent that deregulation of new gas prices, with appropriate monitoring and safeguards against anticompetitive conduct in any market area, should not be tried on an experimental basis, through legislation by the Congress, in order to establish prices through the operation of the laws of supply and demand in an inter-competitive fuels market.

Past Commission producer pricing practices have, in my opinion, been antithetical to the overall public interest. Excessive volumes of gas have been diverted from jurisdictional consumers to intrastate markets, including the combustion of large volumes to generate electricity, when alternate fuels could have been utilized. More and more risk capital is being committed to nonconventional gas sources at prices to the consumer double or triple the price levels from traditional domestic sources of pipeline gas. Low gas prices have significantly contributed to artificial demands for this premium fuel, and as supplies have declined, demand and upward price pressures have shifted to other fuels. Drilling activity in our continental resource base, both for oil and gas, has declined, with balance-of-payments and national security considerations becoming more important as increasing quantities of oil are imported to meet consumer needs. I submit that the "costs" to the Nation's energy consumers from continued regulation may be far greater than would result from a market-clearing price for natural gas determined by the impersonal forces of the marketplace appropriately monitored by antitrust enforcement by the Justice Department and the Federal Trade Commission.

IMPACT OF DEREGULATION ON FEDERAL POWER COMMISSION

Mr. EVINS. What would be the impact of deregulation on Federal Power Commission's manpower and budgetary needs?

Mr. NASSIKAS. As proposed by the administration, deregulation would apply to new supplies of natural gas, gas dedicated for the first time to interstate commerce, and gas sold under contracts where the primary term has expired and the parties have entered into a new contract.

This Commission would still retain regulatory authority over gas being sold under contracts that are still in their primary term. In addition, I believe we should retain abandonment authority in the instances where expired flowing gas contracts are renegotiated.

The Commission should also retain an overview of the impact of deregulation on the interstate market. In effect, the Commission would monitor the dedication of new supplies of gas from the various supply areas with respect to reserves dedicated, prices involved, other contractual terms. Reports on these new dedications would be made to Congress at regular intervals.

Further, if it becomes apparent that deregulation is resulting in runaway pricing, this Commission should have the authority to reimpose regulatory controls.

Accordingly, I believe that manpower and budgetary needs for continuing regulation of flowing gas contracts still in their primary term, processing abandonment of expired flowing gas contracts, and monitoring the effects of deregulation would probably offset the deregulation of new gas sales.

NATURAL GAS WORKLOAD

Mr. EVINS. Highlight and then provide details for the record, the amounts and number of rate increases approved by the Federal Power Commission in the past year.

Also, provide for the record the amounts and number of requests denied by the Commission.

Finally, provide for the record the amounts and types of rate increases that are pending before the Commission.

Mr. NASSIKAS. The Federal Power Commission regulates the price of natural gas in two general categories, pipeline rate applications and independent producer rate applications.

During 1973, the Federal Power Commission suspended 45 natural gas pipeline rate increases amounting to \$599,483,143 annually. Pursuant to Federal Power Commission regulations, these rate increases became effective subject to further Commission action including formal hearing proceedings and possible denial or rate reduction. In addition to the rate increase applications suspended during the year, the Federal Power Commission allowed without suspension 135 rate increases amounting to \$325,218,340 annually. Twelve suspensions involving \$28,865,473 were allowed—following formal hearing or through settlement—bringing the number of pipeline rate increases for 1973 to 192, totaling \$953,566,956. As of December 31, 1973, 98 pipeline rate applications involving \$1,029,295,408 were pending before the Commission.

The Commission suspended 229 independent natural gas producer rate increases totaling \$24,219,515 during 1973. These suspensions are subject to further Commission action including hearing procedures and possible denial or reduction in rate. For the same year, 1978 dockets were terminated, allowing \$103,283,409 in increases to become effective. In addition, \$11,757,433 in increases were either denied or withdrawn. As of December 31, 1973, the Commission had pending 283 independent natural gas producer rate suspensions involving increases totaling \$18,618,588 annually.

CURTAILMENT APPLICATIONS OF PIPELINE COMPANIES

Mr. EVINS. Let us talk about the backlog of cases. On page 6, it states 37 jurisdictional pipeline companies have filed with the Commission proposed curtailment plans. Eight of these filings have resulted in final Commission order. Twenty-nine are in final stages of analysis. What was the result of the eight orders? What did the Commission decide?

Mr. NASSIKAS. By order No. 431, the Commission requested pipeline companies that anticipated curtailed deliveries on their systems file tariff sheets setting forth a curtailment plan to effectuate the policy stated in that order or stating that their presently filed plan will accomplish that policy. In response, certain companies responded that their presently existing plan would be implemented. In those instances, the Commission noticed the filing and, when no objection was raised, accepted the filings without amplification. Those filings were made by Granite State, Michigan-Wisconsin, Eastern Shore, Mid-Louisiana, Valley Gas, and South Georgia. Two plans were approved by the Commission as the result of settlement agreements between the company and their customers. The companies involved were Natural

and Northern. The orders approving Northern's settlement agreement have been appealed to the court of appeals and are presently pending court review.

Basically the priorities which we have established run from human needs customers as the highest priorities, down to large users of natural gas as boiler fuel like the electric utility industry; which is the last priority. Let me give you simply a very brief rundown.

Mr. EVINS. Have these curtailment plans increased the workload of the Commission within the last year?

Mr. NASSIKAS. Very radically. When you are regulating with an abundant supply of a fuel or a commodity, the issues are very simplified as to pipeline regulation. We do not allow a pipeline to earn more than a reasonable return. We have to be sure that rate structures are not discriminatory. We have to be certain that the price will allocate that fuel reasonably. When we get into curtailments, we are rationing. We have been rationing natural gas for over 3 years. We started this in 1970, Mr. Chairman, when we identified the shortage in 1969. We started very fast to try to set up a review both from the electric power side and the gas side of what we should do about rationing gas.

CURTAILMENTS CONTINUED

We came up with eight or nine curtailment priorities. I do not have to read these in the record. They are set forth in our orders. But human needs customers are first, and then large commercial requirements are second. One example might be worthwhile mentioning. Take agricultural feedstock of natural gas, which is used for the manufacture of anhydrous ammonia in the fertilizer industry. This is a shortage of feedstock and there is a shortage of fertilizer in the United States. Of course, about 48 percent of all the fertilizer plant requirements are supplied by the nonregulated intrastate market and about 52 percent by the regulated interstate market that we regulate. The fertilizer new plant capacity is suffering from the lack of an assured supply of feedstock.

Mr. EVINS. The curtailment plans are very involved and most difficult and time consuming.

Mr. NASSIKAS. They are and we need personnel and funds to carry out our job.

NATURAL GAS WORKLOAD

Mr. EVINS. How about your customary workload. How many cases did the Commission decide last year, natural gas pipeline how many are pending, how many are in your backlog? If you could read into the record or supply for the record a table of the backlog of your normal pipeline regulation cases.

It may be supplied for the record.

Mr. NASSIKAS. Final action was taken on 266 (53 percent) of the pipeline certificate applications pending before the Commission during the 12-month period January 1973 to December 1973. As of

December 31, 1973, the FPC had pending 231 pipeline certificate applications. Approximately 20 percent of these cases have been in some phase of Commission action for at least 18 months. I have here a table which details our workload.

TABLE 1.—PIPELINE CERTIFICATE MATTERS INVOLVING CONSTRUCTION AND OPERATION OF FACILITIES

Facilities involved; quarter ending—	Pending Start of Quarter	Filed During Quarter	Issued During Quarter	Otherwise Disposed of During Quarter	Pending End of Quarter
Number:					
December 1973.....	207	91	55	12	231
September 1973.....	216	88	88	9	207
December 1972.....	163	64	49	2	176
Miles of pipeline:					
December 1973.....	3,867	499	122	563	3,681
September 1973.....	4,034	396	504	59	3,867
December 1972.....	3,524	614	304	7	3,827
Compressor horsepower:					
December 1973.....	240,056	17,752	18,950	3,760	235,098
September 1973.....	323,411	56,590	137,945	2,000	240,056
December 1972.....	202,430	118,210	38,530	-----	282,110
Estimated cost:					
December 1973.....	\$1,366,138,925	\$474,931,938	\$112,875,341	\$161,672,354	\$1,566,253,168
September 1973.....	1,991,025,439	315,236,313	489,228,927	450,893,900	1,366,138,925
December 1972.....	904,508,257	326,218,561	58,937,044	39,504,000	1,132,285,774

¹ Includes 13 budget-type certificates authorizing construction of facilities costing an estimated \$55,100,000. Such authorizations do not identify particular facilities to be constructed, rather they authorize construction of various facilities conforming to time period and dollar limitations imposed. Actual expenditures may not equal authorized expenditures.

Also, during 1973, approximately 60 percent or 148 pipeline rate applications pending before the Commission were completed. This compares with 77 percent completed in 1972 and 68 percent completed in 1971. As of December 31, 1973, there were 98 pipeline rate applications pending Commission action. This includes 31 proceedings involving curtailments. Since the initiation of curtailment filing, about eight curtailment plans have been accepted for implementation on a permanent basis. In addition, there were about 50 petitions filed for extraordinary relief from curtailment plans.

TABLE II.—PIPELINE RATE SUSPENSIONS—INVOLVING RATE LEVEL CHANGES—INCREASE OR DECREASE

	Number, quarter ending—			Annual dollar amount involved, quarter ending—		
	December 1973	September 1973	December 1972	December 1973	September 1973	December 1972
Suspensions pending start of quarter.....	91	86	86	\$959,139,486	\$761,937,044	\$687,308,310
Changes allowed without suspensions during quarter.....	159	18	35	239,635,167	8,191,673	6,078,695
Changes suspended during quarter.....	13	9	4	85,144,868	197,202,442	38,770,398
Disposition of suspensions during quarter:						
Allowed after formal hearing.....	2	1	-----	10,881,289	9,730,000	-----
Disallowed or withdrawn after formal hearing.....	-----	-----	-----	-----	-----	-----
Allowed through settlement.....	4	3	-----	4,107,657	3,773,851	105,202,232
Disallowed or withdrawn through settlement.....	-----	-----	24	-----	-----	175,485,959
Pending end of quarter.....	98	91	66	1,029,295,408	959,139,486	445,390,517

¹ Does not include 4 rate level decreases involving \$3,889,549.

NATIONAL GAS SURVEY

Mr. EVINS. You spoke about the National Gas Surveys, and certainly these are the essential tools of the Commission. You have to have the facts and the information on which to make your decisions. Is the national gas survey a continuing thing with the Commission? Can't you one of these reports for more than 1 year?

Mr. NASSIKAS. Yes, some of the reports can be used and we do not intend to duplicate them. But regulation is a continuing responsibility and particularly as to gas reserves.

Mr. EVINS. You say on page 10 of your statement that the era of cheap electricity, coal, oil and natural gas has passed.

Mr. NASSIKAS. Yes, sir.

Mr. EVINS. That is a very sad statement.

Mr. NASSIKAS. It is.

ENVIRONMENTAL CONSIDERATIONS

Mr. EVINS. What are some of the environmental difficulties confronting the Commission today?

GREENE COUNTY CASE ENVIRONMENTAL IMPACT

What is the result of the *Greene County* decision?

Mr. NASSIKAS. The additional workload imposed by that decision arises from the fact that we now have to prepare an independent environmental impact statement under section 102(2)(c) of the National Environmental Policy Act rather than circulating the applicant's statement which we used to do.

Mr. EVINS. In other words, formerly the applicant prepared his own statement. Under the Greene County decision the Commission must have a staff to prepare these statements independently.

ENVIRONMENTAL STATEMENT FOR ALASKA PIPELINE

Mr. NASSIKAS. Yes. We have over a hundred personnel who devote their time to environmental issues at the Federal Power Commission. Over a hundred personnel out of some 1,200 spending their time, exclusively, on environmental issues. I do not say they shouldn't be. It is Congress that passed the act. I endorse these environmental acts. However, we have to recognize that to prepare impact statements is a time-consuming task. Think of the pipeline down from Alaska. That is a new one. I don't have that itemized here in my prepared statement.

JOINT ENVIRONMENTAL STATEMENT FOR ALASKA PIPELINE

We are trying to prepare a joint statement with the Department of the Interior to avoid duplication because they have jurisdiction over the right-of-way, on Federal lands, and we have jurisdiction over the facilities themselves, the pipeline transportation, and the import, if it goes through Canada into the United States. If it is in the form of

liquefied natural gas, let us say going to a western tidewater point in Alaska and being liquefied going down to the United States, we still have jurisdiction over the facilities and the transportation of that gas to the United States. That kind of an impact statement is going to consume—I would estimate—somewhere between 30 to 50 man-years which would be required to prepare an adequate impact statement for the proposed gas transportation through competing applications, one for LNG and the other through Canada to the Midwest and Far West. We do not have the personnel to devote 50 man-years to the preparation of that kind of statement. Interior has assured me, and I have conferred on this matter with their top command, that they can make the personnel available.

We hope that we can expedite the preparation of that statement so that we can then determine whether the overall public interest warrants the importation, if it goes through Canada, or whether the LNG project should be cleared. We have that authority. It has been given to us by the Congress.

FPC 1974 APPROPRIATION AND 1975 REQUEST

Mr. EVINS. Last year this committee appropriated \$28,696,000 for the Commission. For 1975 you are asking for \$32,393,000, which is a \$3,697,000 increase. You made a statement in the beginning of this hearing that most of this is for GSA rental.

Mr. NASSIKAS. Plus 40 people.

Mr. EVINS. Looking at your table on page 2, you show an increase for hydroelectric power regulation of \$558,000, an increase for utility industry systems evaluation of \$345,000, for electric power regulation you have an increase of \$458,000, and here is a large one for natural gas pipeline gas regulation, \$1,092,000. There is an increase in every category.

Mr. NASSIKAS. Yes, sir.

Mr. EVINS. These are not confined, then, to your GSA space problem?

Mr. NASSIKAS. Yes; we do have increases other than for our GSA space rentals. They are as I stated on page 1 of my statement. These increases are \$922,000 for personnel and \$545,000 for travel, contractual services, supplies and printing. The increases, plus the GSA space costs, total \$3,697,000 and are distributed among the various programs as shown on page 2. There are no increases in addition to the ones I have enumerated. The table on page 2 simply shows all of the costs distributed among the Commission's programs.

CURTAILMENTS AND EFFECT ON WORKLOAD

Mr. EVINS. In view of the fact that your present and current emphasis is in the area of petitions for curtailment, could there be any diminishing of work in other areas?

Mr. NASSIKAS. Our workload has shifted from applications involving certification of major pipeline expansions to curtailment cases and requests for special and extraordinary relief. Although the total miles of pipeline constructed have decreased, the number of certificates, their dollar value and the manhours required for processing have increased.

There has been no decrease in workload. In fact, with filings involving the Alaskan gas pipeline, Canadian imports, and other supplemental supply sources (LNG, SNG, coal gasification) the workload is increasing significantly.

Mr. EVINS. You said in the early part of your statement that 20 years ago the Commission may have had a different mission than today. You have had many increases in your statutory authorities.

Mr. NASSIKAS. We don't have any decreases I know of. If I did, I would tell you so.

Mr. EVINS. I recognize that this Commission has a lot of problems, but we have competent people to solve them.

COMMISSION RESPONSIBILITIES

Mr. DAVIS. Mr. Chairman, we discussed the new thrust and the new responsibilities that had been placed on your Commission last year. Apparently, from your statement there has been no major change in the current year. You are just going ahead pretty well with the things that you did discuss with us last year.

Mr. NASSIKAS. Yes.

NATURAL GAS INDUSTRY SYSTEMS EVALUATION

Mr. DAVIS. One of the things that occurred last year, and maybe we need to get it clarified here: In the national gas industries system evaluation you went down from 31 to 13 positions.

What has happened here? Has there been a transfer of responsibility to another division?

Mr. NASSIKAS. During fiscal year 1973 the Commission undertook an extensive independent reserves analysis program of natural gas for the year ending 1970. That study occupied the full time of about 22 of our tactical and engineering personnel to review the raw data by the companies and make our own independent estimates of reserves. To carry out the program expeditiously, 18 of these employees were temporarily reassigned from our pipeline and producer programs. At the conclusion of the sampling phase of the program these employees returned to their regular program duties. Then our personnel were also engaged last year in some 35 to 40 different committees, task forces and advisory committees, where by regulation, as well as law, we have participants at those proceedings. They are public, but we have to have FPC participants and want to have them at these meetings. Now that study is done, that is the big gas survey with the 40 to 45 committees, plus the independent evaluation of reserves for 1970, we will be able to carry out a different kind of reserve study, I believe, that will not require this manpower to execute it. The number of committees, too, for the broader parts of our survey, for policy evaluation, will be conducted with smaller committees and with fewer committees. That is the reason for the reduction. We will utilize—I don't want to mislead you—in conducting any reserve analysis in addition to the 13 or 14 that you see here, because we do have expertise throughout our Bureau of Natural Gas and Office of Economics that will assist in this kind of a reserve study. Office of Accounting and Finance. They can be of material assistance to us.

SEARCH FOR DECREASE IN WORKLOAD

Mr. DAVIS. What opportunity do you have in your budget to search out areas where the projected workload is less? I ask that question because, basically, what we have before us today is a justification for the need of new people in many cases. We can find areas where there is one less person than before. Can you point out places where the workload has been substantially decreased?

I am basically talking about the concept of zero based budgeting. Do you pursue that concept or do you hang on at existing levels in most cases with an occasional expansion in terms of personnel?

Mr. NASSIKAS. To respond to the first part of your question, the Commission's annual budget is reformulated each year. We have a continuing workload which we are by statute required to meet and thousands of applications and filings by electric utilities, natural gas companies, municipalities, individuals, and various groups and associations which must be considered and disposed of as promptly as possible. We must therefore request the resources necessary to meet this workload. An examination of the workload shows that between 1973 and 1975 the workload in all major areas will increase on the average by 12 percent: applications for pipeline certificates by 19 percent; audits of utilities by 12 percent; and inspections of hydro projects by 19 percent. In our formal case work the workload increase is even greater, 23 percent more in fiscal year 1975, an increase from 370 to 454 formal cases which require sophisticated and exhaustive analyses by a multiplicity of professional disciplines. The number of rate filings both electric and natural gas continue at all-time high levels and are increasing, although the increase is not as dramatic as in other areas. The number of filings are high, over 3,900 electric rate filings and nearly 1,500 pipeline rate filings. Additionally, new workload is being initiated through the arising of new issues such as curtailment questions, conservation considerations, priorities of service, depreciation practices, the problems of gas supply, and of course the very heavy commitment to environmental considerations as required by the National Environmental Policy Act of 1970 and, for the Commission, the *Greene County* case decision.

We are attempting to handle this increasing workload and deeping issues with as minimum increase as possible, hence the request for 40 additional positions or only a 3 percent increase in personnel for 1975.

It is designed to supply adequate personnel to carry on our needs. Now, when you talk of decreases, it isn't necessarily a question of a decrease in workload, but rather perhaps more efficient management in utilizing our human resources. When we think of the Office of Accounting and Finance, for instance, there is no substantial increase in here for the Office of Accounting and Finance. This is largely due, I would say, to efficiencies in the management of that operation. I think we go the other way. Mr. Davis. We think in terms of whether this budget is going to prove to be adequate to meet our demands over the course of the next year. That may be quite questionable.

I would say this is about as barebones a budget as it is possible to conceive of with our regulatory responsibilities. In conservation, for instance, I think we could use certainly 15 or 20, very readily.

LOW BUDGET REQUEST

On the other hand, other departments of government have conservation responsibilities. I recognize that concept. I recognize a unified budget concept but I think the direction is the other way. I think if anything this budget is too low.

REGULATORY INFORMATION SYSTEM

We do struggle to try to effect savings. Well, the regulatory information system, for instance. Once that is operating, I think we will be much more efficient as a regulatory agency and I believe we should be able to evaluate programs and projects that are beyond our capability at this stage.

This will not mean reduced personnel because the programs that we will be conducting with our regulatory information system could not be conducted by people. It has to be people and a machine and programmed so that we can get our answers. That program is on target and we trust that in the course of the next year, to a year and a half, that it will be a model for other regulatory agencies. In fact, other regulatory agencies and departments of Government, including the Office of Management and Budget, have asked us about how this program has been developed and if we can assist them in developing theirs. We will be pleased to do so when we finish this one.

Mr. DAVIS. You can't offer us any indication that a rather substantial expansion of your automatic data processing capabilities, as provided in your request, is in any way a substitution of that equipment and that capability for personnel?

MANUAL REPORTING OF DATA FROM INDUSTRY

Mr. NASSIKAS. I shouldn't say in any way. I would say that when you have manual reporting for 43 reports. If the data can be filed with us largely on magnetic tape, there is no question about it that some of the manual operations can be discontinued with resulting savings in clerical personnel.

There will be other savings from the standpoint of the regulated industry too.

POLICY EVALUATION TEAM

The point I wanted to emphasize was that even though there may be some savings from that standpoint, we will have to expand our management of this program with some very competent and knowledgeable people at the management level, breaking this down into a policy evaluation team—that is what I have in mind here—to use the regulatory information system effectively.

We could go on manually, of course we could, and not ask for the extra \$1.5 million or \$1.7 million. The nature of our modern society is though that really we can't cope with the volume of work unless we become computerized and know how to use the information.

Actually I am very reluctant about asking for any increase in funds. I should think it would be a great achievement if someone could come into an appropriations committee and say, "I'd like a fourth less than you gave me last year."

WAYS TO REDUCE COMMISSION BUDGET NEEDS

I can't do it unless you decide to repeal some laws. If you deregulate natural gas that may end up with, as I have suggested, it may end up with somewhat less personnel for new gas.

On the other hand, to monitor it the way I suggest, we had better have the personnel to do it.

FEDERAL ENERGY OFFICE DEMANDS

Mr. DAVIS. Describe for the committee the FPC's support responsibilities in assisting the Federal Energy Office.

Mr. NASSIKAS. Following enactment of the Emergency Petroleum Allocation Act of 1973, the Commission by its order 497 of December 7, 1973 instituted a monthly reporting by all generating electric utilities of their projected electricity demands, and the specific energy resources such as oil, coal, natural gas, hydroelectricity or nuclear energy which they planned to use to satisfy the demands. The data on oil requirements were supplied to the Federal Energy Office and have been the basis for that Office's monthly determination of heavy fuel oil allocations.

The FPC staff analyzed the utility responses and other information to identify opportunities for substitution of hydroelectric or coal-based electricity for oil-fired generation, either on an individual utility system or by transfers of electric energy between systems, and supplied these evaluations to the Federal Energy Office. The staff also analyzed responses to the Commission's Order 496, by which electric utilities were directed to state the reductions in electricity consumption which they consider could be achieved by various conservation and load reduction measures, together with the recorded reductions in consumptions of electricity following the President's energy conservation address in November. From these analyses, and data in the FPC files on individual utility load growths in previous years, the staff provided advice to the Federal Energy Office on the amounts by which the utility load estimates could be reduced as a consequence of conservation, and on the associated reductions in their oil needs.

Inevitably, there have been a number of special cases of utility needs for oil deliveries, occasioned by unexpected outages, transportation limitations or local area protection problems. The FPC staff has extensively advised the Federal Energy Office on the merits of such special cases, both at the Washington level and by coordination between the respective regional offices of the Federal Power Commission and the Federal Energy Office.

In parallel with its assistance to the FEO in establishing oil allocations for electric utilities, the FPC also took the lead in encouraging the greatest possible transfer of coal-based electricity from the west and south into the northeast, to minimize oil consumption and avoid possible electricity shortages. Toward this end, several joint conferences were held by the FPC and the FEO with the affected utilities.

I will also note that FEO's efforts to promote reconversion of oil-fired plants back to coal was based in large part on data gathered by the FPC last year in anticipation of a possible fuel emergency.

Up to the present, the Bureau of Natural Gas' principal contribution to the operation of the FEO has usually been in the provision of nat-

ural gas data which are collected and/or aggregated only by the Federal Power Commission. On occasion, our personnel have been asked questions relating to the broader "energy" field where we have had access to particular data or possessed expertise on a specific subject. Data have been provided in response to formal requests and on an informal basis by telephone on various occasions.

Mr. DAVIS. Have you found it necessary to divert significant manpower from your other programs to fulfill your support responsibilities in assisting the Federal Energy Office?

Mr. NASSIKAS. Yes; in order to meet the demands of the fuel emergency, we were forced to use personnel normally assigned to other activities. The gathering, validating, organizing, and analyzing of data each month from almost 900 electric utilities is a massive task, and, although we made as much use as possible of outside ADP contract services, it still required a number of our good people to keep things moving in the right direction. No personnel have been added for specific work on the allocation program. At the current rate, we will devote about 10 man-years of effort to FEO, exclusive of the trained employees who have left FPC to join FEO.

Mr. DAVIS. Expand on the demands for personnel made upon you by the Federal Energy Office.

Mr. NASSIKAS. Bill Simon and I are great friends. From the Federal Energy Office's inception we have assisted that organization in carrying out their responsibilities. Apart from detailing people over there.

The first program was the allocation of residual fuel oil. A conversion program in identifying 26 plants that are immediately capable of conversion from oil to coal. With our identification, the 46 plants that are capable of being converted overall in the United States on a rather fast basis, this has all been work that we have done in the past and I am very happy we did it because it was available to assist the FEO when it was organized.

We detailed in the first instance one economist for 60 to 90 days to assist that organization in setting up a computerized program, which is somewhat redundant, by the way, and I have indicated you might need redundant control systems to prevent a nuclear catastrophe.

I am not entirely sure you need redundant systems to determine requirements. So we have our computer; they have their computer; they have our facts and figures with some modifications, in estimating their requirements.

That economist returned back to the Federal Power Commission and that was the detail.

Our top personnel and middle management, supervisory personnel, were approached from time-to-time by the Federal Energy Office to see if they were interested in changing the scene and going to the Federal Energy Office. I have no problem with that. If you want to staff and equip an energy office one of your most prolific sources of staffing I presume would be the expertise of the Federal Power Commission. Even if some of the offers were made a step or two above the grade which I am privileged to grant to our employees.

There are the equivalent of eight full-time FPC personnel, I am told, who have been and are still assisting the FEO by collecting data, making analyses related to fuel allocation, and otherwise providing advice. In addition, the preparation of analyses related to the fuel allocation

problem has required us to use \$25,000 to \$30,000 in contractual funds for automatic data processing plus funds for time on other agencies' computers. I also know of my own knowledge that there are several accountants, and other personnel who have transferred to FEO.

PERSONNEL TRANSFERRING TO FEO

There are 13 personnel who have transferred, or who will soon transfer to the Federal Energy Office. One very fine young man—and I recommended him—had a chance to secure a promotion in grade and transferred from our Comptroller's Office to the Federal Energy Office. I was very sorry to lose him but I don't think as chairman of this Commission I should deter people from advancing. I think I should help them, which I do.

The accountants are a special case in a way. The Chief Accountant, Mr. Drennan, who is chief of our Office of Accounting and Finance, informs me that there are nine accountants, primarily younger accountants, who are transferring to the Federal Energy Office. I assume with reference to some of their auditing work. I don't know this because I haven't talked to Bill Simon about it, but I assume this is for the auditing functions that they have.

ESTIMATED MAN-YEARS USED TO ASSIST FEO

One final point: Apart from personnel that are transferred, I haven't computed the staff time of our Bureau of Power or our other bureaus the man-years that have been spent assisting the Federal Energy Office in carrying out their responsibilities. The Commission's effort is very considerable. That is as it should be where you have divided responsibilities in the energy sector—the Federal Power Commission, with responsibilities over a third or so of your energy supply—not quite 25 percent—two-thirds of natural gas, and then take hydro, maybe 25, 26 percent of energy supply, really is quite directly regulated by the Federal Power Commission.

ELECTRIC POWER RELIABILITY RESPONSIBILITIES

Because of our reliability responsibilities under the Federal Power Act, we are told by Congress we must have an abundant low-cost supply of electric power throughout the United States with due consideration to conservation and efficient utilization of the resources. We carry that out.

We have a responsibility for fuels too in that sense. I believe you have to coordinate. I think it is in the national interest to coordinate and this is precisely what we try to do.

MAN-YEARS USED TO ASSIST FEO

Mr. DAVIS. What did you say the man-years of effort devoted to FEO was?

Mr. NASSIKAS. I won't even include my time. I believe Mr. Davis that I earlier estimated the figure to be about 10 man-years, based upon the staff's estimates.

FPC HYDROELECTRIC LICENSING

Mr. DAVIS. Now turning to the involvement of the Federal Power Commission in the authorization of new hydroelectric plants. Give us a summary of where you fit into that picture.

Mr. NASSIKAS. On hydroelectric?

Mr. DAVIS. Yes.

Mr. NASSIKAS. If a private utility wishes to secure a license for either a pumped storage plant or a conventional hydroelectric plant, an application is filed with the Federal Power Commission requesting that we issue a license for the operation of that plant.

As to federally constructed plants, we don't have jurisdiction to license those. Those are acts of Congress which are very special. Apart from the recent flurry of environmental activity—you have NEPA, Air Quality, Water Quality—apart from that, under the Federal Power Act, we have been conducting overall environmental reviews and examining public and private benefits on a comprehensive basis under section 10 of the Federal Power Act for many years before I even heard of the Federal Power Commission.

Mr. DAVIS. I am referring to the authorization of these projects. The calls that are made upon you for advice relating to proposed authorizations by the Public Works Committee and the Committee on Interior and Insular Affairs. Are you involved in those instances when they decide the questions of authorization that involve new hydroelectric powerplants?

Mr. NASSIKAS. We are asked for our views on all legislation that relates to water resources, that relates to the utilization of water whether it is navigable or non-navigable, or whether it has a power potential, whether it is on lands owned by Federal entities, or whether they are withdrawn lands from Federal lands. Yes. We also conduct reviews not only for that kind of authorization, but for the Atomic Energy Commission, on nuclear, examining alternatives.

COMPELLING ARGUMENT FOR HYDROELECTRIC LICENSING

Incidentally, today I think I should make this point, Mr. Chairman. I think it is an important one. I forgot it.

Today with the fuel shortage and trying to maintain a capacity for self-sufficiency, and because many of these hydro projects are very environmentally sound, it would seem to me that we have about the most compelling arguments in favor of domestic hydroelectric development almost since the founding of TVA in the thirties. That is how important I think it is.

FEDERAL HYDROELECTRIC PROJECTS

Mr. EVINS. I am glad to hear the chairman say that. Dr. Burns of the Federal Reserve Board says Public Works projects are too slow. He thinks it is better to crank out unemployment checks—that is in the recommendations for this year's budget.

I say public works are investments in America. They bring capital assets to the country and put power on the line.

Mr. NASSIKAS. I agree. I sit on the Water Resources Council and we have staff participating in this constantly. This is an interesting coun-

cil. Although its functions would be abolished if the Congress sees fit to establish a Department of Energy and Natural Resources, or a substitute. This is up to the Congress.

ELECTRIC POWERPLANT SITING

Mr. DAVIS. Who has the major responsibility with respect to the plant siting legislation? Do you have the big responsibility or does the Secretary of the Interior pretty well carry the ball?

Mr. NASSIKAS. The first year and a half that I came down to this great Capital of this Nation. I spent a large part of my spare time, such as I could muster, in serving with a White House Task Force on Plant Siting. Interior, any department you might want to mention, was involved in this.

We came out with some plant siting recommendations that I thought were sound.

ELECTRIC POWERPLANT SITING LEGISLATIVE PROPOSALS

Because the administration did not issue the kind of bill that I thought was in the national interest, I presented my own bill to the Congress of the United States in the fall of 1970. An excellent bill, if I do say so, and shortly thereafter—this was in the fall of 1970—around January or February, there suddenly emerged an administration bill that was largely along the same lines. Because if a policy is right, it is hard to change it.

Then there were hearings on that plant siting bill, and hearing after hearing. Needless to say, no legislation was passed on plant siting. Currently the Office of Management and Budget is reviewing plant siting legislation.

We participate in the drafting of plant siting legislation largely through our staff and try to assist and get our own input into the plant siting legislation.

NEED FOR CENTRAL PLANT SITING AUTHORITY

My view, of course, has been and is that in the event there is a centralized certificating authority established in the Federal Government to certificate and license plants where the States or a regional organization don't—this is the scheme of most of this legislation—that the Federal Power Commission should have that certificating authority and not the Department of the Interior. This is simply my homely view of the problem.

One more point: Siting is far broader than simply siting a hydroelectric facility today. Some of your energy systems like a nuclear plant licensed by the AEC, large coal plants, not licensed federally but, of course, subject to regulations, if they are on Federal or Indian lands. Also they are subject to Environmental Protection Agency regulations, as implemented by the States as to the kind of equipment they must have.

I don't know how far we will get on this, but there is an overall regulatory review being conducted by the administration. My view is there should be a centralized energy system licensing organization in the Federal Government; not several. There should be one.

In that licensing organization all of the competing public policies and conflicts should be determined. Whether they are environmental or energy, subject to appeal to the courts, just as anything the Federal Power Commission does in the way of licensing is subject to an appeal to the courts.

Mr. DAVIS. Has your office been requested by the legislative committees for your comments?

Mr. NASSIKAS. I believe they have requested that. I also believe there is some testimony. Some of it is at OMB.

NEED FOR PLANT SITING LEGISLATION

I cannot over-emphasize the importance of siting legislation. I believe that the electric utility industry—I don't know about the rest of the industry—I believe they are basically opposed—at least they have been—to this kind of centerist legislation. I think they are wrong. I think the electric utility industry now realizes they are spinning their wheels trying to set up a plant dealing with about 32 local regulations. The electric utility industry is today a regional problem and not a local franchises problem with small franchised territories in limited parts of the United States, with attendance at Rotary on Monday and where it goes later on I don't know.

Mr. ROBISON. When Chairman Ray of the Atomic Energy Commission was here she strongly recommended the siting legislation too.

Mr. NASSIKAS. I agree with her.

FPC AS A PRINCIPAL GOVERNMENT AGENCY RELIANCE

Mr. ROBISON. You say your agency is a point of principal governmental reliance in meeting U.S. energy problems.

I must confess over the years some disappointment in the capacity of Federal Power Commission to help us meet those problems. I don't criticize you nor your fellow commissioners nor your excellent staff for the work you do. It may be that your problem in this regard relates to the limitation of your legislative mandate. Do you want to speak to that?

Mr. NASSIKAS. I can express my own disappointment as to how effective the Federal Power Commission may be under the statutes we work with in establishing and determining policies to assure an abundant supply of electric power to start with, and to efficiently allocate our gas resources. Also, Federal-State responsibility is split.

CONGRESSIONAL APPROVALS FOR ENERGY PROBLEMS

Mr. ROBISON. We are trying to get ourselves organized finally, at least in the executive branch, for establishing Federal energy policy and supporting a Federal fuels policy.

We have the Federal Energy Office, which may soon, I hope, become the Federal Energy Administration. It has apparently taken some of your employees. Once it becomes the Federal Energy Administration it may take more of them, I don't know.

We may also have down the road a Department of Energy and Natural Resources, to which you refer.

FUTURE FPC ENERGY ROLE

How do you see, in this developing reorganizational picture, the future role of the FPC?

Mr. NASSIKAS. Certainly I envision that the Federal Power Commission will continue on with its electric power jurisdiction over bulk wholesale rates, the administration of the uniform system of accounts, and the responsibility for a reliable supply of power.

However, I will say this: coordination can go just so far. There has to be authority to determine, as the Congress assigned, for mandatory allocations, which I testified in favor of incidentally, testified in favor of mandatory allocation when this was not a particularly popular thing to do. I thought it was necessary.

The Federal Power Commission may or may not continue on independently licensing hydroelectric systems. As I said earlier, I think there ought to be a Federal—I don't know whether it is the Federal Energy Administration; I think not—I think a more practical regulatory scheme would be to combine the regulatory functions—regulatory functions, not research—of the Atomic Energy Commission and the Federal Power Commission and, as I said earlier, this would be an independent, economic regulatory agency where the appointments would be made for a term. Not a so-called independent executive regulatory agency which I believe is a contradiction in terms.

Mr. ROBISON. Thank you for your comments.

GREENE COUNTY CASE AND RELATED BACKLOGS

Let's switch to a specific case, the Greene County case. What is the backlog that you can identify of pending applications that directly stem from the Greene County case?

Mr. NASSIKAS. All of our gas pipeline certificates, all of our applications to import liquefied gas, or import from Canada or Mexico, as I said earlier, our licensing of hydroelectric plants which would, in the language of NEPA, "significantly affect the quality of the human environment," would be influenced by Greene County, as we have interpreted that decision.

Mr. ROBISON. Give us for the record some statistics on the backlog that came from the Greene County case.

Mr. NASSIKAS. As the result of the Greene County decision, nine statements prepared prior to the decision had to be redone. In addition, a portion of the existing backlog probably can be attributed to the increased staff effort that must be put into the preparation of all environmental impact statements due to the Greene County decision.

GENERAL ENVIRONMENTAL IMPACT STATEMENTS

Mr. ROBISON. You say in your prepared statement that you are moving toward something called a generic approach to this effort on your part. What does that mean?

Mr. NASSIKAS. Well, the idea of this is, for the Atomic Energy Commission it was said by the court of appeals in the District of Columbia that a generic review of the breeder reactor, would be necessary so it

could be determined in a rulemaking type review as to whether or not the principle of that kind of a reactor was environmentally acceptable.

Applying that principle to some of our own responsibilities, it would seem to me we could conduct, for instance, a generic review—that is, a review of the type of liquefied natural gas facility that is used for storage, that might be used in various parts of the United States in that one review we could determine the kind of facility which would meet safety and public convenience and necessity standards. That is what I mean by generic review.

Mr. ROBISON. I think it is a practical approach and if you want to supplement your answer for the record to save time feel free to do so.

Mr. NASSIKAS. Typically, nationwide siting problems and related land-use considerations for hydroelectric facilities and possible risk to human health due to the existence and operation of LNG facilities can be addressed as generic issues. Also a single environmental impact statement may be prepared where a number of applications affecting a number of projects in a single river basin have been filed. The single river basin environment impact statement eliminates the need to write a statement for each application. In the same manner, a single environmental impact statement is often prepared for a number of related applications for natural gas pipeline projects.

STORM KING MOUNTAIN PROJECT IN NEW YORK

Mr. ROBISON. Has the controversial Storm King project in New York State been caught in the Greene County situation?

Mr. NASSIKAS. No. The U.S. Supreme Court refused certiorari some time ago. However, when I say no, there is an appeal from our denial of an application for further review of that case before the Second Circuit Court of Appeals in New York. Whether or not Greene County is an issue in that appeal, I don't know. It may be.

Mr. ROBISON. Why don't you supplement your answer there too, would you please, and give me an up-to-date statement relative to its status?

[The information follows:]

The court in *Greene County* held that the Commission staff is required to prepare the detailed environmental impact statement required under section 102(2)(C) of the National Environmental Policy Act of 1969, 42 U.S.C.A. § 4321 et seq., prior to conducting formal hearings.

No party to the continuing Storm King litigation has asserted the applicability of *Greene County* to those proceedings. Indeed, the court in *Scenic Hudson Preservation Conference v. F.P.C.*, 453 F.2d 463 (2d Cir., 1971), cert. denied, 407 U.S. 926 (1972) stated:

In view of the exhaustive environmental findings which occupy a substantial portion of the Commission's opinion, and the Commission's explicit performance with the enumerated portions of the required statement, we conclude that full compliance with the National Environmental Policy has been demonstrated. Id. at 481.

Prior litigation in the Storm King proceeding had been seminal in the development of the National Environmental Policy Act, particularly the requirement for consideration of alternatives in environmental impact statements. Under the circumstances of the Storm King case, the court finally decided that it was appropriate for the Commission to issue its environmental statement in the form of an opinion.

Consolidated Edison is presently precluded from dredging and filling in the Hudson River pending the issuance of a permit under section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C.A. § 1344 (a). *Scenic*

Hudson Preservation Conference v. Callaway, 6 E.R.C. 1241 (S.D.N.Y., 1973). Consolidated Edison has appealed this order; *Scenic Hudson Preservation Conference* has cross-appealed. *Scenic Hudson Preservation Conference v. Callaway*, appeal docketed 74-1311, 2nd Cir., 1974.

Petitions to reopen the proceeding have been filed by *Scenic Hudson Preservation Conference* and the Hudson River Fishermen's association on grounds related, primarily, to the fishery, but also to scenic beauty and power economics. By order issued May 31, 1973, the Commission denied these petitions to reopen on the principal ground that the petitions for a hearing on the issue of fish protection were premature in the light of ongoing studies. The Commission noted that no "new evidence" was being advanced by petitioners only differences of opinion and interpretation by professional biologists in connection with matters already in the record. Appeals from this order and an order denying rehearing issued July 26, 1973, are pending before the court of appeals for the second circuit. *Hudson River Fishermen's Association v. F.P.C.*, appeal docketed 73-2558-59, 2nd Cir., 1973.

Supplemental petitions to reopen the proceedings filed before the Commission on December 18 and 19, 1973, by the same above-mentioned petitioners and recommending a gas turbine alternative to Storm King were denied by order dated February 5, 1974. In its order the Commission stated neither petition presented new evidence. The significance of the gas turbine alternative was argued before the court on February 11, 1974.

CONSERVATION OF ENERGY

Mr. ROBISON. On conservation results you told us about your effort along with other Federal agencies to help reduce electric demand. Your guideline was to get it down 10 percent. Now you also tell us in the budget you are asking for three people to conduct conservation research. A while ago you used the phrase "redundant." Are these people going to be redundant? Are they going to do research that other people are doing?

Mr. NASSIKAS. No, sir.

Mr. ROBISON. What are they doing?

Mr. NASSIKAS. In the first place, the chief engineer that we have and his assistant will be reviewing the engineering aspects of the use of electric power and natural gas and other fuels at points of production and consumption in terms of experiments to be conducted by our regulated industries in conjunction with our Federal Power Commission staff.

With three people it is impossible to conduct the experiments ourselves, nor do we believe we should be converted into a conservation research and development organization.

We do think that we have a responsibility, nevertheless, to review the programs of the utilities and to have our staff work then with them to conserve the use of energy. To an extent, if everything worked perfectly, there would be redundancy. I don't think everything works perfectly, either in the Federal Establishment or in private industry, and I, therefore, think we ought to have that limited expertise to see what we can do, and I think you are going to get a handsome return on your investment in conservation by giving us this money for the Federal Power Commission. I really mean this.

PRICE AS A CONSERVATION FACTOR

Mr. ROBISON. You are a good pleader.

Will they be looking into the electric power price structure as a factor in encouraging conservation?

Mr. NASSIKAS. This particular group in conservation would be in the periphery of that subject. On rate design, it is our basic bureaus, both Natural Gas Power and the Office of Economics and the Office of Accounting and Finance, to work on rate design, and we are trying at the present time to get into some innovative methods of rate design which perhaps will—well, for example, assigning costs on the basis of peak responsibility.

You build a plant, you build lines to serve a certain class of customers. Are they paying their fair share or aren't they? If we have conservation by residential users, they use less power and they are charged more. How can we more effectively allocate that burden as against other classes of users?

PUBLIC VIEW OF CONSERVATION PROGRAM

Mr. ROBISON. I am glad you brought that up because I think the thing that is disturbing a lot of electric consumers right now is the fact that they did turn their thermostats down last winter; they did turn off lights in the basement and rec room and what not that used to burn all day and all night. They did turn off the television set when the kids weren't watching.

Now what do they get? They get increased electric bills for using less energy. Something is wrong, and it discourages the conservation ethic we are trying to promote.

Do you have any comment?

FEDERAL POWER COMMISSION JURISDICTION OVER ELECTRIC POWER RATES

Mr. NASSIKAS. We have something to say about that, but I must add again, we have 7-percent responsibility. That is in dollar value, of bulk wholesale rates; 15 percent of the kilowatt hours. The States have the rest.

STATE-FEDERAL SYSTEM OF REGULATION AND FEDERAL POWER COMMISSION

You asked, Mr. Robison, and most appropriately, about how effective is the Federal Power Commission, and you expressed disappointment about what the Federal Power Commission really can carry out, whether it can really carry out its programs. I responded that under the statutes we have, it is most difficult, and I am disappointed, too.

If you have a State-Federal system—and I want to continue the State-Federal system, by the way—you get into these problems.

INVENTORY OF DEVELOPED AND UNDEVELOPED HYDRO SITES

Mr. ROBISON. You tell us you have an inventory of developed and undeveloped hydropower sites. This subcommittee has been very interested this year in undeveloped power sites, as well as additional sources of electrical energy.

Provide for the record some basic information relative to the undeveloped portion of the hydropower.

Mr. NASSIKAS. The inventory of undeveloped hydroelectric power sites is based on information available from industry sources and from various river basin surveys. The sites included have engineering feasibility. From an economic point of view, however, some have been shown to be justified while others have not received adequate or current analyses demonstrating justification. Also, some sites may be precluded from development by legislation establishing wildernesses, wild and scenic rivers, and similar areas. In total, there are over 1,400 identified undeveloped sites having a potential for the installation of approximately 120 million kilowatts of conventional hydroelectric capacity, capable of producing some 427 billion kilowatt-hours annually. Of these totals, sites in Alaska could provide about 32.4 million kilowatts, capable of an annual generation of 172 billion kilowatt-hours. The undeveloped amounts include 6.9 million kilowatts of capacity now under construction, capable of producing 14.5 billion kilowatt-hours annually. In addition to the sites for conventional hydroelectric development as noted above, there are numerous possible sites for pumped storage development, including projects now under construction that will provide about 6 million kilowatts of reversible capacity.

LANDS RESERVED FOR POWER SITE

Mr. EVINS. On page 3 of the "Hydro Regulation" section of the justification it states that "The United States . . . has approximately 15 million acres of land reserved for purposes of power development." What is the nature and potential of this 15 million acres?

Mr. NASSIKAS. Nearly 9 million acres of the approximate 15 million acres of public lands reserved for power development purposes are reserved for the potential Rampart Canyon Dam project on the Yukon River in Alaska. The remaining 6 million acres are scattered throughout the public land States.

The land withdrawals resulted from powersite reserves, powersite classifications and water power designations, created by the U.S. Geological Survey for the protection of the possible power value of streams, and pursuant to the filing of applications for FPC permits or licenses. According to available records, the public lands involved in the powersite reserves and classifications total about 14 million acres. An additional 1.3 million acres are withdrawn for projects that have been included in applications submitted to the FPC.

The power value of the lands in the withdrawals is the subject of a continuing program of review by the staffs of the Geological Survey and the F.P.C. In recent years, review of withdrawals affecting more than 2.4 million acres of public lands has been completed resulting in the recommendation that approximately 1.7 million acres be released from powersite withdrawal. In addition, the suggested plan of development of the Rampart Canyon Dam project was the subject of an extensive Federal study which found that the more than 5,000,000-kilowatt potential of the proposed project warranted retention of the existing land withdrawal.

Although most of the better hydropower sites have been developed, there are large potentials of undeveloped power. Development of much

of the potential hydropower could not be economically justified, but with the recent large increases in cost of fuels it is anticipated that studies will show economic justification of additional projects.

It should be noted that the powersite reservations do not preclude other uses or acquisition of the lands under the public land laws.

RELICENSING HYDROPROJECTS

Mr. EVINS. What has been the FPC policy with regard to relicensing hydropower facilities whose licenses have expired? In relicensing a facility the FPC must determine "whether the project is to be relicensed or a recommendation is to be presented to the Congress for takeover of the project by the United States."

What factors do you consider in evaluating this on a case by case basis?

Has the FPC recommended that any be taken over by the United States.

Mr. NASSIKAS. Implicit in the Federal Power Act is the concept that a licensee occupies or utilizes waters of the United States as a privilege and not as a right. Accordingly, sections 14 and 15 of the act provide that at the end of a license period the project may be "taken over" by the Federal Government.

Of paramount importance is a determination as to whether Federal ownership of a project would better serve the public interests than would private ownership. In some instances the special interests and functions of a Federal Agency might be more efficiently and economically served by Federal ownership.

Some of the factors considered in such a determination are the net investment in the project, the economic feasibility of continued operation, redevelopment, or expansion of the existing project; maintenance of water quality in the particular waterway; whether the project fits into a scheme of comprehensive development for the involved river basin; protection and enhancement of fish and wildlife; safety and adequacy of the existing project; development of adequate public recreational areas and facilities; aesthetics of project area; and the environmental impact of the continued existence of the project.

Federal agencies are made aware of the expiration of a license and availability of a project for "takeover" by the public noticing process, and by direct solicitation of recommendation for "takeover" from potentially interested agencies.

To date, the Commission has not recommended Federal takeover of any project. However, the FPC has received recommendations for "takeover" of two projects—the Chippewa Reservoir project (No. 108) located on the Chippewa River in Sawyer County, Wis., and the Escondido project (No. 176) located on the San Luis Rey River in San Diego County, Calif.

Recommendations for takeover of both projects were made by the Secretary of the Interior for the Bureau of Indian Affairs acting on behalf of Indian Tribes. Also, the Department of Agriculture, U.S. Forest Service recommended takeover of the Chippewa project. Both projects are presently involved in hearing proceedings to establish a record from which the Commission can determine whether to recommend to the Congress that either, or both, be "taken over."

DEREGULATION OF NATURAL GAS PRODUCTION

Mr. ROBISON. Mr. Chairman, I have more questions relating to deregulation.

Mr. EVINS. We will be happy to have the witness reply to those.

DEREGULATION

Mr. ROBISON. How can you advocate such a drastic step as deregulation—since at least the critics thereof think it drastic—before the FPC has in hand the kind of basic facts as to end use, and so forth, of this essential resource?

Mr. NASSIKAS. The pervasiveness and increasingly worsening nature of the natural gas shortage compels us to take effective action and to act in a timely manner. The effects of over 15 years of cost-based regulation can be readily seen—steadily declining reserves, a peaking out of production, diversion of large volumes of gas to the intrastate market and heavy curtailments of service in many parts of the Nation. Our forward-looking pricing and other policies of the last 4 years have led to a turnaround in exploratory activity and to dedication of increased supplies to the interstate market under higher, more adequate prices. The positive response of the industry to the relaxation of the constraints of inadequate pricing indicates that the industry may perform even better in a completely free market. It is my position that deregulation of new gas should at least be given a trial run to see if this course best serves our Nation's needs. Such a program should be carried out under the watchful eyes of both the Federal Power Commission and the Justice Department for a period of 3 to 5 years. This is the only way we will learn the response of supply to increases in the wellhead price of gas. More adequate knowledge as to the end use of gas and to the actual magnitude of reserves is essential for enlightened regulation, but the unavailability of these data should not preclude efforts to increase our domestic supply of natural gas. The information necessary to determine whether or not deregulation is desirable is not the sort which is lacking.

NATIONAL GAS SURVEY

Mr. ROBISON. Next, when will the National Gas Survey—authorized in 1971—be completed? You may already have touched on this, but let's have it again, with special reference as to whether or not it will also provide the FPC with the kinds of basic information I just asked you about, and whether or not you think it will buttress the arguments already advanced in support of deregulation.

Mr. NASSIKAS. Volumes I through V of the National Gas Survey are scheduled to be released between June and September this year. Specifically, volumes II and III are scheduled for June, volume IV for July, and volumes I and V for August. Supplementary reports will be released on a continuing basis, probably at the rate of three or four per year. These reports will seek to provide the latest available data as well as describe the latest developments in the industry. The survey will provide one of the largest stores of data and information on the natural gas industry and will certainly aid the Commission in the discharge of its duties. There will still remain areas in which data are unavailable or insufficient. We are constantly striving to obtain more

complete and accurate, and frequently entirely new, blocks of data to aid us in our regulatory responsibilities.

The information in the survey will not, of itself, strengthen the position of either opponents or advocates of deregulation. Those with preconceived notions on the subject will surely be able to find data to buttress their particular positions.

Mr. ROBISON. An FPC staff reply brief relating to an action concerning Belco Petroleum Corp., et al., makes several challenges to the contention that deregulation will allow competitive pricing and new venture capital. Page 12 of that brief mentions advance payments by pipelines to producers, and states: "High sums of capital have been loaned, generally interest free, to producers for the purpose of developing gas reserves."

Can you give us some idea of the nature and volume of these transactions?

Mr. NASSIKAS. The Commission's advance payment program permits pipelines to make interest-free loans to producers which are to be repaid in gas or other economic consideration within 5 years of commencement of repayment. After an advance is made, the unrecovered portion is allowed in the pipeline's rate base and the pipeline's customers pay a return thereon.

Advances made pursuant to contracts executed on or after December 29, 1972, may be made for gas exploration, development, and production. Advances made under contracts executed prior to November 10, 1971, may be made for exploration, development, production, and lease acquisition while advances under contracts executed on or after November 10, 1971, but prior to December 29, 1972, may be made only for gas development and production.

As of July 31, 1973, \$1,069,424,329 had been advanced by pipelines to producers operating within the lower 48 States. Of that figure, \$65,161,233 had been repaid by the producers to the pipelines. These advances resulted in the finding of 10.27 trillion cubic feet of proven reserves of natural gas and 9.57 trillion cubic feet of potential reserves of natural gas for use in the interstate market at a cost of approximately 3.6 cents per thousand cubic feet (Mcf) over the field price of gas purchased from these reserves.

COMPETITION

Mr. ROBISON. A considerable portion of the staff study I just mentioned is devoted to a discussion of the competitive nature of the petroleum and gas industry. After pointing out that most major natural gas producers are also the major oil producers the study concludes: "The petroleum industry is not structured so as to render competition workable. Concentration is high; the position of dominant industry leaders is quite stable; many of the major interstate pipelines, such as Tennessee, which buy natural gas from producers have ownership interests in the production business as well, and this renders their position in the market rather equivocal—to say the least—and, finally, there is a vast array of joint interlocking relationships which greatly encourage coordinated rather than competitive conduct" (pp. 35-6 of Belco study).

Do you accept this characterization? How can the public be assured of a competitive market under any sort of deregulation?

Mr. NASSIKAS. From my analysis, I would conclude that there is credible evidence to support the thesis that workable competition exists in the natural gas producing industry. Those who would advocate continued regulation have not sustained the burden of presenting evidence, that on a national basis, the industry is not workably competitive. I further find no evidence of anticompetitive conduct by producers vis-a-vis the structure of the industry. I recognize there is some evidence of structural imperfections in the industry, but not to the extent that deregulation of new gas prices, with appropriate monitoring and safeguards against anticompetitive conduct in any market area, should not be tried on an experimental basis, through legislation by the Congress, in order to establish prices through the operation of the laws of supply and demand in an intercompetitive fuels markets.

The Supreme Court in the *Permian Basin Area Rate Cases* (390 U.S. 747 at 757) noted that natural gas producers are "intensively competitive," and the fifth circuit has found "the market is at least structurally competitive." Furthermore, I concurred in the findings in *Belco Petroleum Corporation, Agent, et al.*, (F.P.C. Opinion No. 659) that there is "workable competition" in the natural gas industry. Although I dissented to the 45-cent rate and found that a 35-cent rate should have been prescribed.

Past Commission producer pricing practices have, in my opinion, been antithetical to the overall public interest. Excessive volumes of gas have been diverted from jurisdictional consumers to intrastate markets, including the combustion of large volumes to generate electricity, when alternate fuels could have been utilized. More and more risk capital is being committed to nonconventional gas sources at prices to the consumer double or triple the price levels from traditional domestic sources of pipeline gas. Low gas prices have significantly contributed to artificial demands for this premium fuel, and as supplies have declined, demand and upward price pressures have shifted to other fuels. Drilling activity in our continental resource base, both for oil and gas, has declined, with balance-of-payments and national security considerations becoming more important as increasing quantities of oil are imported to meet consumer needs. I submit that the "costs" to the Nation's energy consumers from continued regulation may be far greater than would result from a market-clearing price for natural gas determined by the impersonal forces of the marketplace appropriately monitored by antitrust enforcement by the Justice Department and the Federal Trade Commission.

The attainment of the Nation's economic, social, and environmental objectives will not be met by adhering to past energy policies, including unrealistic pricing of wellhead prices of natural gas. Congress should expeditiously consider legislation which would return to the marketplace the responsibility for setting wellhead prices of new gas. However, until Congress has amended the Natural Gas Act, we will continue to regulate within the constraints imposed by the Congress and the judiciary.

For your further information, I am providing for the record a copy of the Commission's decision in the *Belco* case which was issued May 30, 1973.

[Federal Power Commission Opinion No. 659 was referred to the committee for study.]

PRODUCIBLE SHUT-IN WELLS

Mr. ROBISON. A March 24, 1974, FPC study on offshore gas and oil leases indicates that a total of 168 offshore leases are classified as "producidle shut-in" leases of January 1974. The study explains that in order for a lease to be classified as "producidle shut-in," at least one well must be drilled on the leased plot and it must be determined that the lease is capable of being produced in paying quantities.

The study further explains that the 168 leases total 787,972 acres with bid bonuses totaling \$1,490,716,000.

Could you explain to the committee how much producidle gas is expected to come from these leases? Also, under the form of deregulation you have proposed, would not the consumer pay a considerably higher price for gas coming from these proven leases than the presently prevailing national average price for new gas?

Mr. NASSIKAS. The study was presented for the record of hearings before the Subcommittee on Activities of Regulatory Agencies of the House Select Committee on Small Business.

At the present time we do not know of the magnitude of the reserves underlying these producidle shut-in leases. The answer to this question is the object of the second phase of our investigation which will commence the week of April 14, and which will see the return of several FPC staff members to the offices of the U.S. Geological Survey in Metairie, La., to secure the necessary raw data with which to make our own estimate of reserves. We hope to publish our findings in a followup report within several months.

Under the form of deregulation I advocate consumers would pay higher prices for gas from these leases than the presently prevailing national average price for new gas. However, I would point out that the prevailing area rate in the offshore area, 26 cents per thousand cubic feet, is higher than the national average in any event, the latter being about 24.6 cents per thousand cubic feet during 1973. The important point here though is that unless producers can be assured higher wellhead prices than in the past, the interstate market may receive inadequate new supply increments. Another benefit of the course I advocate will be a stimulation of domestic exploratory effort to attain a capacity for energy independence rather than relying on more costly imports of liquefied natural gas from foreign nations or higher priced Canadian pipeline supplies.

Mr. ROBISON. This price question you raised needs further elaboration. It has been held that one possible consumer price per natural gas under deregulation would be 60 cents per thousand cubic feet. The FPC staff brief I mentioned holds that in the context of the Belco Petroleum request a 35 cents per thousand cubic feet price would yield at least a 15 percent rate of return to affected offshore producers.

I understand that there is disagreement over this estimate, but could you tell us what range of profits producers might expect in today's market if gas were selling to the consumer at 60 cents per thousand cubic feet?

Mr. NASSIKAS. Regrettably, I must refrain from answering this question since the range of profits of producers is a substantive issue in our pending rulemaking Docket No. R-389-B and the Belco case, Belco Petroleum, et al., Docket No. C173-293, currently pending upon appeal before the U.S. Court of Appeals for the District of Columbia Circuit,

styled *Consumers Union of the U.S. v. FPC*, District of Columbia Circuit No. 73-1792.

Mr. ROBISON. Last month, the FPC asked for public comment on a proposal to set a uniform national rate for interstate natural gas from "new" wells—those placed in operation as of January 1, 1973. Has there been litigation related to this proposal in the past, and would you explain the status of that litigation?

Mr. NASSIKAS. The proceeding you mention is designated FPC Docket No. R-389-B. It was initiated by a notice issued April 11, 1973. Subsequent notice issued March 21, 1974, requested comments on revised and updated staff cost studies and a staff report on nonassociated natural gas reserve additions reported by the American Gas Association. Initial comments are to be filed with the Commission by April 22, 1974, and responses to the initial comments are due on May 28, 1974.

There has been no litigation on this proposal, but the Supreme Court of the United States recently denied certiorari in a related case which affirmed the FPC's authority to establish rates by rulemaking.

Mr. ROBISON. Please detail for us the nature and intent of the FPC order in controversy, and please bring us up to date as to its present status, along with the status of any litigation it produced. In the same connection, it was charged—in one of such suits, I believe—that the FPC order was "illegal" because it had been made in "extraordinary secrecy," as it was alleged, without prior knowledge of the FPC staff and also issued without any advance notice or opportunity for public hearings.

What can you tell us as to this; and, in your answer, would you be so kind as to remind us, for the record, what the normal FPC procedures are for considering any such an order, including the requirement for public hearings?

Mr. NASSIKAS. I would be glad to provide that for the record.

[The information follows:]

In the spring and summer of 1973, the Nation's major interstate pipeline companies submitted evidence to the Commission as to each company's projected curtailment of gas supplies during the period from March 1973—to April 1974. Almost every interstate pipeline indicated that it would be forced to curtail a greater volume of gas during 1973-74 than in 1972-73. After analyzing this data and comparing it with information on the winter fuel situation compiled by other governmental organizations, we determined that a gas supply shortage of this magnitude would severely jeopardize the 43 million American consumers who are dependent on natural gas for heating and residential use. The Commission's past experience indicated that such a shortfall in supply would result in the forced closing of schools and factories, the denial of utility service to new customers, requiring electric utilities to use alternate fuels which are environmentally less desirable, and an upward price pressure on other sources of fuel to which consumers would be forced to turn.

In response to the evidence of this severe supply shortage threatening gas consumers during the 1973-74 winter season, the Commission promulgated Order No. 491 on September 14, 1973. The effect of this order was to extend from 60 to 180 days the term under which a pipeline experiencing a supply shortage on its system could make emergency purchases of natural gas without Commission certification. The Commission hoped that this longer period would make temporary sales to interstate pipelines more feasible to producers, thereby increasing the total gas available to the vital interstate market during the time of acute shortage.

When the Commission originally promulgated its 60-day emergency procedures 4 years ago, it relied upon specific language in the Natural Gas Act as authority for its action, section 7(c) of the act, 15 U.S.C. 717f(c), which requires certification of sales of gas in interstate commerce, contains this proviso:

[The Commission] may by regulation exempt from the requirements of this section temporary acts or operations from which the issuance of a certificate will not be required in the public interest.

During the 4-year period in which the Commission had utilized this statutory provision to allow pipelines to make temporary purchases of gas without first obtaining a certificate, no party had ever challenged our authority for such action under the Natural Gas Act.

Order No. 491 was originally issued without notice and comment. The Administrative Procedure Act specifically provides that notice and opportunity for a public comment may be omitted when such procedures would be "impracticable, unnecessary, or contrary to the public interest." In issuing order No. 491, the Commission believed that immediate action was required to protect the American consumers dependent upon the interstate gas supply during the impending winter heating season. It thus found that to delay any action that could avert a gas supply crisis until the full procedures of notice and public comment had been completed would, indeed, be "contrary to the public interest."

In response to allegations by certain consumer groups that our action was procedurally defective and without statutory authority, the Commission issued order No. 491-A on September 25, 1973. In that order we reaffirmed our conviction that notice and comments were not imperative as a matter of law because of the exigencies of the shortage of natural gas for the impending winter. Nevertheless, we invited comments to be filed by any interested party on or before October 8, 1973, and any responses to these comments could be submitted by October 17, 1973. The Commission stated that it would then issue a further order in light of those comments on or before November 13, 1973. We refused to stay the operation of order No. 491, however, on the grounds that the challenging parties had failed to demonstrate how the extension of our previously existing 60-day procedures to 180 days would cause irreparable harm to any segment of the consuming public.

The Consumer Federation of America and the Public Service Commission of the State of New York sought a stay of our order in the U.S. Court of Appeals for the District of Columbia Circuit. On October 3, 1973, that Court issued an order staying order No. 491 until final action by the Commission upon evaluation of the comments invited by order No. 491-A.

During the interval of September 26 to October 17, 1973, the Commission received comments or cross-comments from 24 parties. No party contested the Commission's finding that the Nation was faced with a severe shortage of natural gas for the 1973-74 winter season. All producers of natural gas expressed favorable views as to the efficacy of the 491 procedures in inducing increased sales of natural gas to the interstate market. Five parties challenged the Commission's action on essentially legal grounds, that is, the proper interpretation of the language in section 7(c) of the Natural Gas Act allowing certificate exemption for temporary acts. Nearly all parties believed that the Commission should reinstate its previously existing procedures for the issuance of limited term certificates. Such procedures had been stayed by order No. 491 as originally promulgated.

On November 2, 1973, the Commission issued order No. 491-B which modified order No. 491 in part, but reaffirmed the extension of the emergency purchase period to 180 days. In our order we referred specifically to the comments received which indicated that a 6 month exempted sale will induce greater volumes of gas into the interstate market that would otherwise normally be sold to the intrastate purchasers. This results from the fact, as many commenting parties indicated, that it is economically infeasible to undergo the mechanical changes required in a given pipeline system to take a new supply of gas for only 60 days, as our previous procedures allowed. A 6 month sale, however, would justify the expense of undergoing the necessary changes in order to make a temporary purchase.

In order No. 491-B, we reaffirmed our intention to continually monitor the prices pipeline companies pay for gas under the 180-day exemption. If any prices appear to be excessive, the Commission would treat this as costs unreasonably incurred and the pipeline will not be allowed to pass these costs on to the consumer through its rate filings with the Commission.

The Consumer Federation of America again urged that the Commission reconsider its order No. 491-B and stay its effectiveness in the interim. The Commission denied this request on November 21, 1973, in its order No. 491-C. In that order we again emphasized that immediate emergency sales to pipelines

are required if the American consumer is to be protected during the critical winter season.

Consumer Federation then sought a stay of our order by the U.S. Court of Appeals for the District of Columbia circuit. On December 10, 1973, the court granted the requested stay without opinion, and ordered an expedited schedule for filing briefs and hearing oral argument on the merits.

The Commission then petitioned the Supreme Court of the United States to vacate the lower court's stay of our order in view of the critical gas supply shortage currently plaguing our Nation. On December 20, 1973, the Supreme Court vacated the District of Columbia circuit's stay, and reinstated the effectiveness of our 180-day exemption procedures.

The final briefs of all parties were submitted to the District of Columbia circuit on January 30, 1974. The case is now currently awaiting oral argument before that court.

On March 1, 1974, the Commission issued order No. 491-D. This order terminated the 180-day emergency sale provisions effective March 15, 1974, and reinstated the previously existing regulations allowing emergency sales without certificate authorization for a period of up to 60 days. Our procedures allowing the issuance of limited-term certificates were unaffected by this order.

Mr. ROBISON. Chairman Nassikas, is it true that not only is there no Federal regulation of intrastate natural gas prices, but that fully a third of the Nation's gas supplies are consumed within the borders of the producing States—notably Texas and Louisiana—and that, as a result, much of that natural gas is “wasted” as it were as boiler-fuel and the like rather than being made available to the rest of the Nation for more-efficient uses? If such is the case, should Congress consider legislation to extend Federal controls to the intrastate area of concern?

Mr. NASSIKAS. The facts as you state them are accurate, and the situation does pose one of the most perplexing problems that we face in the effective discharge of our regulatory duties. We have recognized the importance of conserving our reserves of clean-burning natural gas for the highest priority uses, and have promulgated a list of end-use priorities to be followed by interstate pipelines during periods of curtailment. We have also solicited the help of State regulatory commissions in implementing these guidelines on an intrastate basis where we do not exercise any jurisdiction.

In the priorities of service thus established, gas consumers are divided into categories on the basis of end-use and their capability to meet requirements with alternate fuels, the latter specifically excluding propane and other gaseous fuels. Therefore, users of gas who are dependent upon this fuel to meet human needs but cannot readily shift to alternate fuels are placed in the highest category. Large commercial requirements and firm industrial requirements for plant protection, feedstock and process needs, and storage injection requirements for pipeline customers, comprise the next highest priority. Other firm industrial and interruptible requirements follow. Generally, interruptible industrial customers will receive lower priority than firm industrial customers, and will likely experience interruptions of increasing frequency and of longer duration. Large users of boiler fuel who may have alternate fuel capabilities available to them are given the lowest priority.

We are charged by the Congress and the Natural Gas Act to regulate. We are not regulating if we are compelled to accept a price offered by a producer in competition with the intrastate market—which cannot be sustained by evidence of costs approved by the Com-

mission, or in the absence of a rational basis for acceptance including unit costs of the project in addition to relevant economic factors.

If the unregulated intrastate market or producer-stimulated prices in excess of a workably competitive market control the price level to consumers in the interstate market above the level reasonably justified by costs, including a reasonable return, producers will receive windfall profits sanctified by orders of this Commission. I cannot endorse this kind of nonregulation and I am certain that my colleagues cannot either. It is not our mission to enable producers to be unjustly enriched at the expense of interstate consumers—even if our failure to certificate a sale may result in less gas for the interstate market. It is Congress that has imposed upon our Commission the duty to provide a permanent bond of consumer protection under the Natural Gas Act. If we are unable to prescribe prices under the Natural Gas Act to serve the interstate market, congressional change in the act is necessary.

FEDERAL CORPORATION

Mr. ROBISON. It has been suggested by some that we need a federally owned corporation to drill for oil and gas on public lands so as to provide a "yardstick"—much after the fashion of TVA, I suppose—for acquiring reliable data on oil and gas production costs and to spur private industry into greater competition. What, currently, is either your—or the Commission's—position on such suggestions?

Mr. NASSIKAS. Mr. Robison, I can only give you my own personal thoughts on this subject since our staff is now reviewing and analyzing a proposed bill on this subject and, therefore, the Commission has not yet spoken to this issue. I am opposed to the entry of the Federal Government into the field of development of natural gas and oil resources. The system of private enterprise has served the Nation well in the development of one of the Nation's leading industries which has supplied the continually increasing voracious demands of the American public for energy and at competitive rates. I believe that proposals for the creation of a corporation having the financial support and protection of the Government would have an adverse competitive effect upon private industry. This Government's participation in programs designed to overcome this Nation's energy problems should be directed to its leadership and input in the research and development necessary to provide the bases for self-sufficiency in the energy supply essential in the long term for national security and this Nation's financial stability. Government programs should lead the way and complement industry's efforts to conserve existing fuels and to develop other sources of usable energy from coal, nuclear, hydroelectric, geothermal, oil producing sands, and solar energy.

Our system, based upon attractive investment opportunity and return which has enabled this Nation to achieve the highest standard of living in the world can benefit from intelligent governmental direction. Apart from existing and proposed increased Federal participation and direction in the research and development of our energy resources, we need inter alia, a turn-around in our overseas commitments, expanded leasing in the Federal domain, and revision of our tax policies.

Mr. ROBISON. On page 14 of your prepared statement you touch on the valuable work the FPC, and other agencies, did in the recent energy

crisis to encourage transfer of electrical generating reliance, throughout the industry, away from oil- and gas-fired units and toward other fuel sources. What has been the overall result of this necessary effort, so far, especially insofar as the Northeast—with its previous dependence on imported oil—is concerned?

Mr. NASSIKAS. On January 13, 1974, Mr. Simon and I jointly announced that as a result of discussions with utilities and analyses by both the FPC staff and by utility groups, it appeared to be practicable to import as much as 20 million kWh per day into the Northeast and Middle Atlantic regions from other utilities which generate electricity primarily from coal, nuclear, or hydropower. These potential supplying utilities were located, for the most part, in other areas east of the Mississippi River.

Subsequently, we have been following the actual energy transfers, which at one point in January reached 18 million kWh per day but have since declined to a little in excess of 4 million kWh per day. The principal reason for the decline has been economic. The imported energy has been quite expensive because of wheeling charges and losses, and the oil allocation and energy conservation programs were successful in maintaining a balance between electricity supply and demand in the Northeast. Also, however, utility coal stocks were reduced and some States in the potential supplying areas placed restrictions on export of electricity to insure that no hardship would be placed on their citizens. I should note that a substantial amount of coal and hydroelectric energy has been made available from Canada, in excess of 10 million kWh per day, which has been of considerable assistance.

In February we surveyed the status of plant reconversions from oil to coal fuel. As of January 28, 1974, 13 boilers at 8 plants in the New England and Middle Atlantic States had been reconverted, saving approximately 45,000 barrels of oil per day. An additional seven boilers at four plants were scheduled for reconversion through May 1974, representing an additional potential oil saving of about 50,000 barrels per day. One additional plant which can burn oil or coal interchangeably is being operated exclusively on coal, saving about 5,000 barrels of oil per day. Thus, the utilities in the Northeast will have reduced their oil requirements by about 100,000 barrels per day as a result of shifting back to coal fuel. This is approximately one-half of the total saving estimated to be possible with all plants having a conversion capability.

MODIFICATION OF REGULATIONS AND ACCOUNTING PROCEDURES

Mr. ROBISON. On page 19 of your statement you say the Commission has "modified" its regulations and accounting procedures in an effort to encourage energy research and development investment by what you term "jurisdictional companies." Please give us some more detail on what has been, and can be, done here in the overall energy R. & D. field and then furnish us with some greater detail, specifically about the natural gas industry's own natural gas research plan.

Mr. NASSIKAS. The latest modifications to the Commission's regulations and accounting procedures designed to encourage research and development investment were adopted in Order No. 483, under docket No. R-462, which was issued on April 30, 1973.

Under the provisions of order No. 483 the Commission's rate regulations were amended to provide that electric utilities and natural gas

pipeline companies may request prior Commission approval of rate base treatment for R. & D. projects involving an investment of \$50,000 or more which, if approved, would not be subject to further Commission review in a rate proceeding. The rate regulations were also amended to provide that utilities and pipeline companies may recover in their rates on a timely basis R. & D. expenditures charged to operating expenses which are in excess of average R. & D. expenses during a specified period of time and earn a return on R. & D. expenditures which are deferred for future writeoff to operating expenses.

Order No. 483 amended our accounting regulations by addition of account 103, Experimental Electric or Gas Plant Unclassified, wherein utilities and pipeline companies are to record the investment in utility plant constructed as a research and development plant so that the plant may be operated for a period of time in an experimental status. The investment in such plant is considered as part of a pipeline company or electric utility's rate base on which a return is earned.

What can be done in the future to encourage R. & D. investment is now being explored with representatives of the electric and gas industries by the Commission's R. & D. task force. The FPC staff R. & D. task force has, since its formation earlier this year, met with representatives of the natural gas industry to examine possible procedures for implementing the "natural gas research plan" and with representatives of the Electric Power Research Institute to discuss their immediate and long-range research plans. The task force will continue to review and evaluate these cooperative industry research programs both as to their individual merit and as to their effective coordination within the natural energy R. & D. effort. The task force will advise the Commission as to any matters within our jurisdictional responsibility over natural gas and electric companies supporting these independent R. & D. programs.

The gas industry research plan was published in January of this year. It presents a specific research plan for the next 5 years and makes a general projection to the year 2000. The estimated cost for the first 5 years is \$2.3 billion for the national effort which is proposed to be supported both by the industry and Government. More than 82 percent of the effort relates to the development of new supplies, mostly for the development of substitute natural gas from coal, oil, oil shale, and solid wastes. The remaining effort is for transmission, storage, distribution, and utilization of gas.

The Commission has moved to clarify the status of research and development expenses in an effort to stimulate technological developments in the natural gas industry. The Commission issued on August 26, 1970, in Docket No. R-381, new regulations which revise and clarify the Commission's accounting treatment of research and development expenditures. These changes allow the regulated companies to recover legitimate research costs. This rulemaking resulted from the analysis of responses to the Commission's Order No. 322 which required annual reporting of research and development expenditures. These responses showed minimal research and development activity in the natural gas industry at a time when major supply problems and environmental concerns affect the industry.

The Commission has taken action to provide utility companies with a more informed basis for planning ways to meet their ever increasing

operating and financial needs by reducing regulatory uncertainty and providing consistency between accounting and rulemaking wherever possible and by clarifying the existing policies in these areas. For example, Commission Order No. 420 issued January 7, 1971, prescribes accounting treatment of land held for future use.

To encourage the greatest possible participation in research and development by electric and gas utilities, the Commission on December 13, 1972, asked for comments on revisions to its regulations. On April 30, 1973, the Commission issued Order No. 483 amending its regulations to allow gas pipeline companies to apply for advance FPC approval to include R. & D. expenses of \$50,000 or more in a project as a rate base item. Companies may also apply for authority to tack R. & D. expenditures which exceed amounts included in their rate base. The FPC also amended its accounting system to provide for costs associated with R. & D. plants operated in an experimental status. Rate treatment may be accorded for a company undertaking or its contribution to a joint project. Under the order, the definition of R. & D. is broadened to coincide with today's need for increased energy supplies.

I believe there are many other areas in which our Government can offer leadership and input in the research and development necessary to provide the bases for energy self-sufficiency. To repeat what I said in response to an earlier question, I believe Government programs should lead the way and complement industry's efforts to develop other sources of usable energy from coal, nuclear, hydro-electric, geothermal, oil producing sands and solar energy, as well as efforts to increase exploration and development of conventional oil and gas supplies.

With regard to your inquiry about the gas industry's research plan, I am supplying for the record a copy of this document, prepared by the American Gas Association, and entitled "Gas Industry Research Plan, 1974-2000." The first few pages of the report provide an excellent summary of the plan.

Mr. EVINS. Mr. Myers.

RESPONSIBILITY OF FPC FOR ASSURING ELECTRIC POWER SUPPLY

Mr. MYERS. It is not clear to me what responsibility or role the Federal Power Commission does play in needs of a particular area for electric energy. As an example, if one particular area of the country has a shortage of electric energy, do they ask you to give them assistance in getting additional electric energy and, if so, how do you go about that?

Mr. NASSIKAS. We have been requested to assist in getting power from one region on to the other, but in the normal way—that is "we," our staff has been—the normal way in which this develops is that where power is transferred, as it currently is being transferred through the operation of the integrated power pools between these regions. This has been done through this last winter from one or two or three regions of the country to another beleaguered region. The Commission regulates the rates of the transmitting utilities, of course. They have to be paid for the power they are transmitting. The rate at which they are paid and the method of assessing that payment is an issue in current proceedings before the Commission.

But, as for our directing a particular utility—let's say Florida Power & Light as an example—to transfer some of their power to Georgia, we don't basically have that authority.

We do have authority to order the construction of an emergency interconnection. We have been trying to integrate power operation in the Florida, Georgia region, so that Florida will no longer remain an electrical island. But energy transfers have been made in the form of fuel as well as electricity—like last winter, as an example, a fuel shipment destined for Florida Power was diverted to Boston Edison, by order of the Federal Energy Office. That fuel had been contracted at a certain price and then I guess the quid pro quo would have been to then pay Boston Edison back in fuel.

Well, to pay back in fuel might be five times the price of the original contract, I don't know, but FEO did not impose any requirement for replacement.

That was FEO not FPC.

ENVIRONMENTAL IMPACT STATEMENTS

Mr. MYERS. Has the *Greene County* case required a duplication in effort as far as the preparation of independent environmental impact statements is required?

Mr. NASSIKAS. No; it has not had that effect. But before the *Greene County* decision, we think we were preparing, in effect, an independent statement. We would review what the utilities prepared, but they were using the regulated utilities manpower resources to carry out our job so we wouldn't have to ask our people to do it.

The court found otherwise and we had to abide by the decision.

Mr. MYERS. You are making an independent analysis?

Mr. NASSIKAS. Under *Greene County* we have to prepare an independent analysis ourselves. The point is, what is the major Federal action which triggers the preparation of an impact statement? On a hydroelectric facility—we are the lead agency and we are the ones to prepare it.

Mr. MYERS. Does the Corps of Engineers have to prepare one?

Mr. NASSIKAS. Yes, if the Corps of Engineers were building a Federal dam, they would prepare one, but then, of course, we are not involved. However, there could be instances where we might be, let's say, flooding Federal lands. There could be instances—well, there are others involving coal gasification where we say we don't have jurisdiction over the construction of certain plants in the New Mexico area, where Interior, of course, controls the Federal lands.

There is another interesting case at the court where it is claimed by a group—and this is being litigated now in the circuit courts—they claim we have jurisdiction over any discharge or any use of waters which might in some way reduce the level of flowing waters and therefore we have jurisdiction over the construction of fossil fuel plants. We disclaim that. Let's see what the court says.

EQUIPMENT FUNDS FOR FPC

Mr. MYERS. What is involved in your request of \$318,000 for equipment?

Mr. NASSIKAS. The funds requested will be used for the purchase of two emergency power generators, at a cost of \$86,000, to operate the ADP facilities and the air-conditioning system under emergency conditions.

Forty thousand dollars will be required to purchase a total of 67 electronic calculators, adding machines, and typewriters to replace wornout equipment, and \$50,000 will be required to purchase office machines for new employees and provide microfilm readers for the Bureau of Power and Bureau of Natural Gas.

Eighty-two thousand dollars will be required for furniture for new personnel and replacement of wornout furniture and furnishings needed for offices and bureaus.

Forty thousand dollars will be required to purchase one large press (\$16,500), one small press (\$10,000), and replace an obsolete paper cutter.

Twenty thousand dollars will be required for library publications covering the professional disciplines of the Commission, including legal, economic, accounting, engineering, environmental, geological, managerial, and other publications.

COMMISSION SPLIT ON NATURAL GAS PRODUCER PRICES

Mr. EVINS. I know, Mr. Chairman, we all would like to ask many other questions.

I will submit at this point a statement from the Wall Street Journal, February 4, 1974, which says, "FPC shows deep split on extent gas prices should climb as intrastate demand grows." It also goes into deregulation. I will submit this for the record and ask you to give some answers.

[The document follows:]

[From the Wall Street Journal, Feb. 4, 1974]

FPC SHOWS DEEP SPLIT ON EXTENT GAS PRICES SHOULD CLIMB AS INTRASTATE DEMAND GROWS

(By a Wall Street Journal Staff Reporter)

WASHINGTON.—The Federal Power Commission appears sharply divided over how high natural-gas prices should rise to keep interstate and intrastate pipelines competitive during the energy crisis.

In a split decision, the FPC authorized an interstate pipeline to purchase natural gas at a record price of 55 cents per thousand cubic feet.

The action, affecting Southern Natural Gas Co., Birmingham, Ala., compares with the previous top price of 45 cents per thousand cubic feet approved by the commission last year and the average price of about 26 cents for natural gas currently sold across State lines. Intrastate gas isn't regulated by the Federal Government, but is believed to be selling for much higher prices.

The latest FPC order is one of several price increases cleared under a 1972 commission policy that allows producers to get prices in excess of FPC area ceiling rates if the prices are found to be in the public interest. Thus, approval of the 55-cent level is a further sign of a majority of the commission's willingness to let gas prices rise substantially to encourage greater supply for interstate pipelines when competition from intrastate consumers is increasing due to the energy crisis. The Nixon administration, with a similar objective in mind, wants Congress to deregulate all new gas prices, which would permit the FPC to scrap its case-by-case approach, but the lawmakers don't seem disposed to take such drastic action at this time.

Utilities served by Southern Natural Gas are expected to incur only a negligible price impact because the new 55-cent rate covers only a minor fraction of the

total gas Southern is buying under long-term contract. On a national scale, moreover, the three member majority of commissioners in favor of the higher rate asserted their action won't "be precedential in other rate proceedings."

However, the two dissenters—John N. Nassikas, chairman, and Commissioner William L. Springer—were particularly vigorous in their objections. Mr. Springer, in fact, took the unusual step of releasing his own press statement that described the "stinging dissent" offered by himself and his commission colleague. The release said the minority members had charged the commission majority with having "capitulated to the prescription of an industry-established price . . . rather than a just and reasonable rate by regulatory review."

Mr. Springer's statement also asserted that because the majority opinion wasn't supported by "substantial evidence . . . it would be reversed on appeal" to Federal court if one were made. The opinion of Messrs. Springer and Nassikas noted, however, that no one had intervened in opposition to the increase and thus a court appeal isn't possible to reverse "the majority's travesty of regulatory justice."

Two members of the majority, Commissioners Rush Moody Jr. and Albert B. Brooke Jr., responded with a statement of their own appended to the opinion. They said it's unfortunate it "substitutes passion for an honest recognition that reasonable men may differ in a case such as this." Ironically, the swing vote in favor of the record rate was provided by Commissioner Don S. Smith. He is the former Arkansas public service commissioner appointed to the Federal Power Commission by President Nixon last year after consumer groups vigorously objected to his initial choice as too close to the natural gas industry. The decision was Mr. Smith's first significant action since joining the Federal Power Commission.

The 55-cent rate applies to 571.9 million cubic feet of gas monthly that Southern has contracted to buy from four small producers—Mallard Exploration Inc., Devon Corp.; Eason Oil Co.; and Eschbia Oil Co.—operating in the big Escambia Creek field in southwestern Alabama. Mallard, which controls about half the field, claimed costs ranging from about 48 cents per thousand cubic feet to a high of more than 68 cents. The rate sought by the producers was the 55 cents granted by the Commission.

The Federal Power Commission staff, for its part, argued that the rate should be about 38 cents. One Commission staff source said, though, that if industry information on the cost of removing sulfur from southwest Alabama natural gas had been available at the time of the analysis, the staff recommendation would have been higher. In an initial decision in December, a Federal Power Commission administrative law judge would have authorized the sale at 50 cents per thousand cubic feet.

The three-man majority found the 55-cent rate to be "just and reasonable" based on the cost evidence presented. But within the Commission there was controversy over a telegram that Southern sent the Federal Power Commission Thursday, the day before its ruling. The message warned that unless Mallard received authorization for the 55-cent rate by February 1, "we have reason to believe that we will lose this supply and this project will abort."

Chairman Nassikas and Commissioner Springer attacked this "take it or leave it" telegram, but Commissioners Brooke and Moody said in their statement that the *Southern* case was placed on the agenda by the chairman for the "special meeting," which resulted in the final action.

Separately, the Federal Power Commission released a staff report showing that total supply deficiencies of major interstate natural-gas pipelines are expected to be 53 percent higher during the 12 months ending next August than they were in the year-earlier period.

The Federal Power Commission report indicates that major pipeline companies will have a net actual curtailment totaling 1.579 trillion cubic feet below their firm gas pipeline requirements during the year ending next August, compared with supply deficiencies totaling 1.031 trillion cubic feet a year earlier. The figures are based on reports filed by 36 major pipeline companies.

Mr. NASSIKAS. The article concerns a proceedings entitled the *Southern Natural Gas Company, et al.*, docket Nos. CP73-154, *et al.*, in which this Commission has granted rehearing, by order issued March 7, 1974. Since the matter is now pending before the Commission for its reconsideration, any comment would in my opinion be improper in view of the doctrine enunciated in *The Pillsbury Company v. F.T.C.*, 354 F 2d 952 (5th Cir. 1966).

FEDERAL POWER COMMISSION REVIEW OF FEDERAL ELECTRIC RATES

Mr. EVINS. The Bonneville Power Administration comes before the Federal Power Commission for its rate increases. The Southeastern Power Administration does the same thing; the Southwestern Power Administration also files for rate increases before the Federal Power Commission, and perhaps the Alaska Power Administration as well.

TENNESSEE VALLEY AUTHORITY RATEMAKING INDEPENDENCE

The only Federal power agency excluded from your review is the Tennessee Valley Authority. I have always been intrigued by this.

One of the things the Tennessee Valley Authority prides themselves on is their independence. They are not subject to review by anyone. Their rates have gone up seven times in 6 years, and the people are greatly concerned about it. I am thinking about sponsoring a bill to allow the Federal Power Commission to look over the rate change of the Tennessee Valley Authority the same as you do these other agencies.

My question is, what do you do in this process? What has been accomplished? What would be achieved if I prepared such a bill?

FEDERAL POWER COMMISSION REVIEW OF FEDERAL ELECTRIC RATES

Mr. NASSIKAS. Actually we review the rate schedules filed with us by these various administrations, and we affirm or deny them essentially on a revenue payout basis. Most Commission responsibility is under the Flood Control Act authority. I am not entirely sure how historically the process arose, where we are not simply given the square authority to determine a just and reasonable rate rather than approve or deny it.

Mr. EVINS. Has the Federal Power Commission affirmed the rate increases as submitted or have there been denials?

Mr. NASSIKAS. I would say some denials, but in my experience—let me take my own experience of almost 5 years now. While there have been some denials, I would say largely the rates have been cleared and approved by the FPC. I don't say this will continue to be so. Part of this has been that they have been reasonable schedules that have been filed. Some we have worked out, sent back, and they have revised them.

SEVEN TVA RATE INCREASES IN 6 YEARS

As to any bill you present, Mr. Chairman, I certainly believe that is entitled to deep consideration.

Mr. EVINS. You have another agency looking over this before the rates go into effect. The people in my area are concerned about seven rates increases in 6 years and they are looking for something to be done about it.

CONSERVATION PROGRAM

Mr. EVINS. Please explain why the FPC should have a conservation research staff.

Mr. NASSIKAS. In the Federal Power Act, the Commission is required

to regulate electric energy "with due regard to the proper utilization and conservation of natural resources." Conservation and efficient utilization of electric power, fuels, and natural resources have been longstanding concerns of the Commission. Both the National Power Survey and the National Gas Survey now incorporate considerations of conservation and efficient utilization of the natural resources required in the operation of the electric and gas utility systems. The Commission has recently issued several orders calling upon the electric utilities and gas pipelines to adopt programs to conserve fuels in their own operations and to assist their consumers in making more efficient use of energy.

As the demand for energy grows, and the difficulty of obtaining new energy resources mounts, the need to promote efficient utilization of the natural resources upon which energy production depends becomes even more important than in the past. Regulation of the electric power and natural gas industries will play an increasingly important role in these efforts. To assist the Commission to regulate so as to meet its statutory obligations regarding conservation, and to provide the regulatory framework within which utility growth can take place, the Commission should be apprised of the technical and economic latitudes for conservation measures. Moreover, the Commission must be informed of the way in which regulatory actions or legal constraints may influence the adoption of potential conservation measures. Dedicated staff efforts are required to meet the needs of the Commission in this area. The Commission expects that the staff efforts will also provide some technical leadership in indicating the ways in which utilities may apply their own resources to assist consumers to make efficient use of energy.

OTHER AGENCY CONSERVATION EFFORTS

Mr. EVINS. You said earlier in the hearings that other agencies were involved in this effort?

Mr. NASSIKAS. There are, now, several offices in the executive branch of the Federal Government, engaged in various aspects of conservation. Most of these have been established rather recently, and the data which they have compiled have, in certain instances, been of great help to the Commission. Also, the information on conservation, which has been developed in earlier staff work in the Commission, has apparently been of help to some of the more recently established efforts in this field. However, in order to discharge its responsibility as an independent economic regulatory agency, the Commission requires the staff capability to conduct investigations pertaining to conservation, explicitly designed to answer the questions of importance in regulatory decisions. In conducting such investigations, the Commission staff will use data and information available in other Government agencies, academic institutions, and elsewhere, and will conduct investigations of its own where that is required.

WATER RESOURCES COUNCIL

Mr. EVINS. On page 8-4, you indicate that the Commission participates in activities with the Water Resources Council.

What specifically do you do with the Council?

Mr. NASSIKAS. The Commission plays an important role in national water resources planning under our jurisdictional responsibilities in part I of the Federal Power Act. By statute, the Chairman serves on the Water Resources Council as a statutory member. The Commission staff serves on several committees and task forces of the Council concerning such matters as planning, policy and procedures, and assessment of the Nation's water resources supplies and requirements. It also takes an active part in all comprehensive river basin planning studies made under the aegis of the Council and takes the lead in the power planning aspects which include estimating future power needs; tentatively selecting the types of generating plants—hydroelectric, fossil-fuel or nuclear steam-electric, and others—to meet the needs; analyzing powerplant site locations; estimating the condenser cooling water requirements for steam-electric plants; and making feasibility studies of conventional and pumped storage hydroelectric developments. These planning studies are useful to the Commission in licensing non-Federal hydroelectric projects.

TRAVEL COSTS

Mr. EVINS. In both fiscal year 1973 and fiscal year 1974 the FPC spent less for travel than requested in the budget. Do you feel that the travel estimates for fiscal year 1975 are more accurate?

Mr. NASSIKAS. Our travel estimates for fiscal year 1975 are related to the kinds of issues and workload we anticipate in fiscal year 1975 which will involve travel by the staff. For example, in our natural gas pipeline program we must continue the national gas supply investigations and analysis work begun under the National Gas Survey which will require substantial travel, also environmental analysis of pipeline certificate applications requires onsite examination as do our hydroelectric project applications. Travel is required for the monthly inspection of hydroprojects under construction and inspection of projects already under license. The Commission's important and critical work with the electric public utilities involving the interchange of electric energy, electric power reliability and the National and Alaska Power Surveys also require substantial travel. Finally, our very important program of auditing public utilities and natural gas pipeline companies on a recurring basis every 5 years uses a very substantial amount of travel funds.

It is not possible to predict precisely what our travel needs will be; primarily because the Commission's work involves responding to applications and filings and issues arising there from over which we have no control, if it requires travel then we have to do it—if not then no travel is performed. May I add that travel requests at FPC are very carefully screened, including my personal review and clearance.

CONSULTANTS

Mr. EVINS. Please explain further the substantial increase in the need for consultants stated on page 11-3 of the budget justification.

Mr. NASSIKAS. We have found that our need for consultants has increased greatly as new issues arise in handling our substantive workload and in searching for ways to improve our analytical techniques.

As examples, utility plant depreciation has become such a frequent issue that we are seeking a consultant expert in the development or analysis of computerized plant mortality programs; and, environmental issues have created a great need for consultants because the problems are so varied that it is not practical to find much less employ the highest level of skill needed to handle every problem.

Beyond these areas, there is a general need to take advantage of advanced techniques of analysis in dealing with several areas of our work for which skills have not matured in our staff.

ADMINISTRATION

Mr. EVINS. On page 10-1 of the budget justification you indicate that 4 more positions are requested for a total of 44. Why are the four additional positions needed in fiscal year 1975?

Mr. NASSIKAS. The four positions referred to are to provide the Chairman and the Executive Director with two additional staff each to assist in coping with the increased substantive and administrative workloads resulting from a general rise in the pace of Commission activity, additional hearings before congressional committees, and a considerable volume of correspondence related to the activities of the Commission.

This increase will provide the Chairman with a third much-needed attorney to assist in analyzing substantive electric power and natural gas items coming before the Commission for decision, performing legal research related to internal and adjudicatory proceedings, and preparing material for use in appearing before congressional committees. The second position is needed to provide an additional secretary to assist with the administrative and stenographic workload.

The increase in the Office of the Executive Director will provide an additional junior grade equal employment opportunity technician to support the one equal employment opportunity officer, an assistant in the middle grades to help in coping with the myriad of executive and administrative problems. At present the Executive Director has no such assistant.

ACCOUNTING SURVEILLANCE

Mr. EVINS. I note on page 4-4 that you anticipate that the "regulatory information system will permit you to carry out accounting surveillance responsibilities with greater efficiency and dispatch." Explain.

Mr. NASSIKAS. The regulatory information system will make accounting data from the companies available by computer terminals to our professional accounting staff. Currently, a limited number of hard copies of companies' annual and monthly reports are used for many purposes by the accounting staff. In addition to being reviewed for accuracy and completeness, the reports are used for compiling data for publications and press releases, accounting research projects, special studies, congressional inquiries, and for determining compliance with the FPC's uniform systems of accounts. The inconvenience and difficulties of using a limited number of hard copy reports by various organizational units will be eliminated. In addition, the computational and analytical capabilities of the computer can be used

to maximum advantage in accounting surveillance activities. Computer capabilities will make information more readily accessible to our staff than previously and provide the means for accountants to make more sophisticated reviews.

STATE AND FEDERAL AIR QUALITY REGULATIONS

Mr. EVINS. \$3,438,000 is budgeted for "Electric Power Industry Systems Evaluation." I note on page 3 of that section of the justification that the FPC "has undertaken the task of evaluating the effect of State and Federal environmental control regulation" on the reliability of America's electrical power system. Highlight the results of this study.

Mr. NASSIKAS. In December 1972, the Federal Power Commission undertook the evaluation of potential effects of State and Federal air quality regulation's enforcement on the reliability of the Nation's bulk electric power supply. Quantitative information was accumulated through the National Electric Reliability Council on the ability of powerplants to comply with existing Federal, State, and local clean air regulations. To qualify further the data, the FPC had State and Federal air quality agency representatives review the supplied data associated with their particular State or region to verify if that agency agreed or disagreed with the utility projections that specified plants or units would or would not comply with air quality requisites in the years 1975 and 1977; and to supply corrective information if any omissions or errors were found in the reported data.

Following the receipt of information from State and Federal air quality authorities substantiating the completeness and correctness of the data, the 1975 and 1977 data for powerplants unable to comply with existing air quality emission standards were analyzed with respect to the potential effects of these plants unavailability on the bulk electric power supply by regions of the country and on a national basis for years 1975 and 1977.

A draft of the report was submitted for review and comment to the Environmental Protection Agency, following which, their comments were included in the final staff report. The results of the staff evaluation are that eight of the nine Councils show potentially adverse effects. The largest amounts of capacity not in compliance with air quality regulations, and therefore potentially unavailable to supply load, occurred in the East Central Area Reliability Coordination Agreement (ECAR), Southeastern Electric Reliability Council (SERC), and Mid-America Interpool Network (MAIN) Regional Councils in that order for both 1975 and 1977. These three Councils cover about one-third of the Nation's geography and are projected to provide 44.3 percent of the capacity and supply 44.9 percent of the nationwide summer peakload in 1975 and 1977. The 1975 and 1977 annual energy requirements for the three council areas account for 46 percent of the national total. Needed levels of installed reserve often fall in the range between 15 and 25 percent. Under the assumptions stated earlier, the three regions affected most would have negative reserves in 1975. In 1977, one region would face a negative reserve situation. These conditions could be expected in ECAR, SERC, and MAIN in 1975 and 1977, unless some variances were granted to permit operation of plants which otherwise would have to be shut down. Furthermore, U.S. reserves

would be 7.5 percent instead of 24.9 percent in 1975, and 13.8 percent instead of 23.1 percent in 1977. The report concludes that bulk power supply reliability will be significantly eroded if existing environmental regulations are strictly enforced. Legal conflicts exist regarding the enforcement of regulations. Other worthy alternatives to constant emission control are available. A concerted effort by the electric utility industry, government at all levels, concerned environmental groups, and other elements of society is still essential to achieving a solution to the complex problems which interrelate clean air quality, fuel supply, energy demand, and the adequacy and reliability of bulk electric power supply.

Mr. EVINS. I am always impressed with the chairman for his ability, knowledge, skill and expertise. He is a very informed man and he has a great deal of vigor. We commend you. We are always impressed, Mr. Chairman, with your appearance here. We thank you.

MONDAY, APRIL 8, 1974.

INTERSTATE COMMISSION ON THE POTOMAC RIVER
BASIN

WITNESSES

ADM. JAMES S. DIETZ, CHAIRMAN AND COMMISSIONER FROM
VIRGINIA

PAUL W. EASTMAN, P.E., EXECUTIVE DIRECTOR

Mr. EVINS. We will now hear witnesses from the Interstate Commission on the Potomac River Basin.

We have with us Adm. James S. Dietz, USN—Retired, who is chairman and Commissioner from Virginia, and Mr. Paul W. Eastman, Executive Director.

Gentlemen, I have had a chance to look over your budget justifications and your prepared statement. We are going to insert both in the record at this point.

[The information follows:]

The Interstate Commission on the Potomac River Basin (ICPRB) requests the addition of \$18,000 to the President's recommended direct Federal contribution of \$34,000 to the ICPRB proposed budget for the fiscal year ending on June 30, 1975, as described in the attached budget justification.

The ICPRB was established by compact among the States of Maryland, Pennsylvania, Virginia and West Virginia and the District of Columbia approved by Congress in 1940 with major amendments approved in 1970. The compact provides for three commissioners from each of the five signatories, appointed by the Governors and mayor-commissioner, and three Federal commissioners, appointed by the President. Initially its purpose was limited to water pollution control, but the 1970 amendments broadened its role to include all water and related land resources conservation and development. In view of the national emphasis on water quality with the enactment in October 1972, of the Federal Water Pollution Control Act Amendments (Public Law 92-500) and the additional responsibility it places on the States, water quality management activities continue to have priority and are being expanded.

Two areas of activity particularly are being expanded as compelled by provisions of Public Law 92-500. The first is the continuing water quality basin planning process under section 303 (e) of Public Law 92-500, and the second is the water quality surveillance and evaluation required under section 305 (b) to be submitted by the States to the Environmental Protection Agency (EPA) Admin-

istrator on January 1, 1975, and annually thereafter. (Public Law 92-500 also requires the EPA Administrator to transmit these reports to Congress, together with his analysis.)

Logically, EPA is insisting that the State activities in basin planning for pollution controls and the related surveillance and evaluation of the water quality effects be brought together in a basin framework where a basin-wide agency (such as ICPRB) exists. Both of these activities have been started in ICPRB during the current fiscal year. The additional responsibility increases the ICPRB budgetary needs for fiscal year 1975 and beyond as described in the attached justification.

All compact signatories are cooperating with requests for their formula-based shares of the ICPRB budget. (The redistribution of the shares is due to the change from the 1960 population census to the 1970 census as the basis for the formula.) Since fiscal year 1972, the direct Federal contribution has matched the largest of the signatory contributions due to the special Federal interest and responsibility in the Potomac Basin as well as the equal Federal representation on the Commission. Failure to do so for fiscal year 1975 will cause the Commission to delay until fiscal year 1976, or drop altogether, the second additional staff person needed for carrying out the activities previously described. Such an event would seem contrary to the congressional intent in Public Law 92-500 and congressional policy of full support for prompt solution for its "home" region's (Potomac Basin) problems and the Potomac Basin interstate compact concept with the equal (to each signatory) Federal representation.

Therefore, the ICPRB is requesting that \$18,000 be added to the President's budget request of \$34,000 for the direct Federal contribution to ICPRB activities for fiscal year 1975 (that is, a total of \$52,000).

INTERSTATE COMMISSION ON THE POTOMAC RIVER BASIN¹

BUDGET JUSTIFICATION FISCAL YEARS 1975 AND 1976

General

The general scope and emphasis of the Interstate Commission on the Potomac River Basin (ICPRB) work program were established in fiscal year 1973 following 1970 amendments to the compact and the adoption of new goals and objectives in 1971 and 1972. Modifications in the fiscal year 1974 work program currently underway reflected the impact of the 2 years of development, passage, and initial implementation of Public Law 92-500, the Federal Water Pollution Control Act Amendments of 1972 (FWPCA). The amendments made drastic changes in national goals, policies, regulatory authority, and procedures, and are causing major changes in State laws, regulations, and programs. Also important was the impact of the National Environmental Policy Act (NEPA) forcing reconsideration of past water resources conservation and development proposals in the Potomac Basin and the final phases of the Corps of Engineers north eastern water supply study (NEWS) which is due for completion at the end of fiscal year 1974.

The FWPCA and the NEPA have placed greater burdens on water program planning regulating and implementing agencies in evaluating alternative water pollution control and resource plans and projects, assessing their regional and basinwide interrelationships and involving the public in the decisionmaking and implementing processes. Both the magnitude and significant of these activities with basinwide or interstate impact have increased thus placing greater demands on the ICPRB as the only interstate agency with basinwide functions of evaluation, information dissemination, and coordination in the Potomac River Basin.

The major features of the ICPRB fiscal years 1975 and 1976 work program are designed to carry out these functions as support to the significantly expanded responsibilities of signatory water programs inasmuch as the ICPRB is by State statute an agency of each of the signatories. The supplementation and support takes the form of the following principal activities:

1. Program evaluation and coordination:

(a) Basinwide water pollution control information system maintenance and water quality trend analysis.

(b) Major water pollution point source control evaluation for interstate consistency.

¹ A compact of signatory States of Maryland, Pennsylvania, Virginia, and West Virginia and the District of Columbia approved by Congress with Federal participation.

- (c) Water pollution nonpoint source control evaluation (for example, sediment and nutrients from agriculture and other land use and disturbance activities) for basinwide balance and comparability.
2. Basin and interstate planning:
 - (a) Basinwide evaluation and coordination of subbasins continuous planning processes (that is, upstream main stem and tributary interrelationships with each other and downstream stretches and the estuary).
 - (b) Interstate areawide waste water management planning coordination (for example, Cumberland, Md., and Ridgeley, W. Va.; and Washington metro of Maryland, Virginia and District of Columbia).
 - (c) Integration of water quality with water and associated land resources planning (for example, groundwater management, floodplain management, public water supply, et cetera).
 - (d) Coordination and documentation of State and Federal agency water resources planning in light of basinwide perspective needs and goals.
 3. Research and project promotion:
 - (a) Maintenance of priorities from basinwide perspective for needed research and development work and liaison with university and other institution resources for its implementation.
 - (b) Liaison with and special assistance to those responsible for implementing major water quality and water resource related projects within basinwide framework plan (for example, obtainable public support, inter-governmental cooperation and environmental impact clearances).
 4. Public information:
 - (a) Publication of monthly Potomac Basin Reporter, Potomac Basin annual state-of-the-Potomac report, water quality trend report, accidental spill reporting program, basin organization and agency directory, proceedings of public meetings and seminars and basin legislative briefs.
 - (b) Sponsorship of public meetings and seminars on pollution control progress and special problems, information assistance to citizens groups such as Citizens Council for a Clean Potomac (and affiliated groups) and background and for the record information for news media on basin problems and progress.
 - (c) Maintenance of library of Potomac Basin information materials, photo files, educational movies, and exhibit materials for both technical and general reference purposes.

Program evaluation and coordination

Evaluation and coordination from an interstate and basinwide point of view is effective only with up-to-date and accurate information. Thus a major emphasis of the continuing ICPRB program in fiscal year 1975 and beyond will be assisting with the development of systems for compatible and readily exchangeable pollution control and water quality information among the signatories and Federal agencies. The ICPRB can best serve the signatories and the public by being the focus for coordination and exchange of information of basinwide or interstate significance. Also, only with such an information base can ICPRB be an effective link among the signatories necessary to provide joint action and a proper balance of power between them and Federal agencies. (Public Law 92-500, for example, extends USEPA authority over all State agency actions controlling water quality and related land use. In essence, the USEPA regulates State regulatory agencies.)

Trend analysis of water quality in the Potomac main stem and major tributaries is essential for determining the effectiveness of State control programs. Water quality monitoring points, frequencies, and methods therefore will be coordinated among the States through the ICPRB.

The review of water pollution control and water quality information systems of the signatories and the U.S. Environmental Protection Agency (USEPA) as to content, design, operational experience, and the assessment against basinwide planning and reporting requirements will have been completed by the end of fiscal year 1974. The achievement and maintenance of compatibility among the systems for easy exchange of readily comparable information for planning, regulating, and monitoring pollution control activities will take place through the coordinating medium of ICPRB committees and staff in fiscal year 1975 and beyond. Similar review and evaluation steps for water resources development and conservation information will be completed in fiscal year 1975 to determine to

what extent basinwide comparability and easy exchange of data can be achieved for these activities among signatories and Federal water resource agencies.

Basin and interstate planning

The highest priority for Federal, State, and local planning is being given to water quality and related land use. Hundreds of millions of investment dollars go into water pollution control facilities or are affected by regulatory restraints. (The Montgomery County, Md., regional plant construction cost alone is estimated at almost \$100 million and probably will be greater since the site still is indefinite after 2 years of controversy and construction costs increasing at 10 percent per year.) Water quality planning by the States and local governments must follow requirements of the new FWPCA as well as the USEPA guidelines. The latter provides for planning of tributary stream stretches and subbasins within a statewide framework. Interstate and basinwide coordination is left to chance unless the responsibility can be shouldered through a mechanism such as ICPRB. The USEPA has included the Potomac in their list of "priority" river basins and thus the ICPRB signatories are under special scrutiny for coordinated, cost-effective, and environmentally sound pollution control planning.

In 1973 a Potomac Basin Water Quality Planning Task Force was established and agreement will be reached on planning parameters and key control points on the main stem and tributaries. The evaluation of data sufficiency and comparability and the strategies for analyzing control alternatives and impacts will have been completed by the end of fiscal year 1974. The most difficult aspect of determining the effects of chosen alternatives on the key parameters and control points will carry over from fiscal year 1974 to fiscal year 1975 and beyond. Such planning is a continuous process requiring constant reassessment of projects and their basinwide and interstate effects during implementation. Thus an efficient continuous planning process becomes closely tied to the Potomac basinwide information system.

Water and associated land resources planning activities will have completed in fiscal year 1974 the steps of inventorying local, State, and Federal planning activities in the basin, synthesis of applicable the portions into a basinwide planning framework, identification of planning work of interstate or basinwide significance yet to be done, and the agreement by the signatories on a coordinated strategy for continuous documentation of water program and project development and implementation. Annual reassessment of the later in the light of changing laws, regulations, and goals and maintaining interrelationship with the States water quality planning processes will be a major activity of ICPRB in fiscal year 1975 and beyond.

Research and project promotion

These activities are continuous in nature, the specific research and project needs being determined by goals and needs of the signatories and Commission policy.

Public information

The publications of the Commission have become particularly popular with citizens groups, for example the Commission's annual State-of-the-Potomac report and special reports which include the Water Quality Planning Seminar Proceedings, the Water Related Land Use Planning Guide Book (both in press) and others listed previously. The public participation requirements of the FWPCA and NEPA as well as other Federal and State laws have greatly increased the burden on the signatories to provide information of all kinds, especially as related to planning, to citizens, and public interest groups. The public information activities of ICPRB previously described therefore have become a very valuable supplement to the water agencies of the signatories since they provide the essential basinwide and interstate coverage. The ICPRB public information mailing list increased from 4,800 to 5,900 in fiscal year 1973 and is expected to continue to increase at the same rate in subsequent fiscal years.

FISCAL YEARS 1975 AND 1976 BUDGET JUSTIFICATION SUMMARY

	Fiscal year—		
	1974	1975	1976
1. Program evaluation and coordination.....	\$48,000	\$58,000	\$70,000
2. Basin and interstate planning.....	50,600	61,000	74,000
3. Research and project promotion.....	24,200	26,000	28,000
4. Public information.....	46,600	50,000	69,000
5. Support staff and operating costs.....	111,600	120,000	139,000
Total budget.....	281,000	315,000	\$380,000
Total staff.....	11	12	14

¹ Increases in fiscal year 1975 include 1 additional staff member and associated costs in addition to an approximate 6 percent allowance for salary and other operating costs increases.

² Increases in fiscal year 1976 include 2 additional staff members and associated costs plus increases in printing, films and exhibits for dissemination of information on comprehensive planning and implementation activities in addition to approximate 6 percent allowance for salary and other operating increases.

FISCAL YEARS 1975 AND 1976 BUDGET JUSTIFICATION—CONTRIBUTIONS SUMMARY

Signatory States	Fiscal year—		
	1974	1975 ¹	1976 ¹
District of Columbia.....	\$33,500	\$33,500	\$40,700
Maryland.....	33,500	51,800	65,400
Pennsylvania.....	13,400	16,000	17,400
Virginia.....	33,500	46,600	58,400
West Virginia.....	20,100	20,100	20,100
Subtotal.....	134,000	168,000	202,000
Direct U.S. appropriation.....	34,000	34,000	65,000
USEPA grant.....	113,000	113,000	113,000
Total contributions.....	281,000	315,000	380,000

¹ Formula for distribution of contributions among signatories was revised primarily due to population changes from 1960 census to 1970 census.

Mr. EVINS. You are requesting an increase of \$18,000 over the budget request of \$34,000 for Federal contributions to the Interstate Commission on the Potomac River Basin.

Tell us in a few words why you need this \$34,000 contribution by the Federal Government and why an increase of \$18,000 is necessary.

Mr. DIETZ. Mr. Chairman, I regret that Mr. Sternberg was not able to be here today.

The Interstate Commission on the Potomac River Basin requests \$18,000 in addition to the \$34,000 recommended by the President's budget. The Commission was established by a congressionally approved compact among the States of Virginia, Maryland, West Virginia, Pennsylvania, and the District of Columbia in 1940. The compact was amended in 1970. It provides for three Commissioners to represent each of the five signatories, as well as three to represent the United States. Initially its purpose was limited to water pollution control. However, the 1970 amendments broadened the role to in-

clude all water and land-related resources conservation and development.

In view of the national emphasis on water quality as indicated by the Federal Water Pollution Control Amendments of 1972 the Commission assumed additional responsibility to coordinate water management activities among the States and expanded its efforts to comply with the requirements of the new law.

Mr. EVINS. How many members comprise the Commission?

Mr. DIETZ. There are three authorized from each of the five signatories and three authorized to represent the United States, a total of 18.

Mr. EVINS. How many vacancies exist?

Mr. DIETZ. There are at the present time 13 Commissioners.

Mr. EVINS. You have about five vacancies?

Mr. DIETZ. Yes; we have two vacancies in the U.S. contingent, two vacancies in Pennsylvania, and one vacancy in the District of Columbia.

Mr. EVINS. Andrew Jackson said one man with courage constitutes a majority so two or three of you can run this Commission; can't you?

Mr. DIETZ. We are doing it now, Mr. Chairman, with of course the assistance of a very competent executive director, Mr. Eastman.

Mr. EVINS. This compact has been approved by the Congress?

Mr. DIETZ. That is right.

Mr. EVINS. We are all concerned about water pollution and we are all concerned about the quality of the water.

I noticed an editorial in the Star on Sunday which referred to the Tidal Basin being polluted. What are you doing about that?

Mr. DIETZ. It has been that way but we think it is slowly getting better. We are arranging to make progress particularly in the Washington metropolitan area under the new authority of section 208 of Public Law 92-500. However, the Potomac in the Washington area is not ready yet for swimming.

Mr. EVINS. A compact was created but you really have little authority except to call this type of problem to the attention of the Environmental Protection Agency.

Mr. DIETZ. At the present time I am afraid under the existing compact we do not have regulatory authority. However, a new compact is proposed with such authority which has been approved by two of the existing compact signatories. We are working toward approval by the others.

Mr. EVINS. You need more statutory authority to clean up the Potomac River?

Mr. DIETZ. Yes, Mr. Chairman but right now we think we are working toward that goal of a clean Potomac under our existing authority.

Mr. EVINS. Are all the involved States contributing their quotas based upon population, or what is the formula?

Mr. DIETZ. All signatory States, including the District of Columbia, are contributing their portions. The formula recently has been revised to reflect the changes in population since the 1960 census.

Mr. EVINS. Why didn't the Office of Management and Budget comply with the formula requirement? Are you telling the committee they were short on the amount required under the formula?

Mr. DIETZ. For the past 3 years the Federal Government has contributed as much as the largest contribution of any of the States. This

year two States have gone ahead of the Federal Government and we feel it is justified for the Federal Government to match the largest of the contributions from the States.

Mr. EVINS. What did OMB say about your request when you appeared before them?

Mr. EASTMAN. They stated that they didn't regard the matching of the largest State contribution by the Federal Government as a legal precedent and therefore reduced our request by \$18,000.

Mr. EVINS. What are the two States that have increased their contributions?

Mr. DIETZ. Maryland and Virginia.

Mr. EVINS. The District of Columbia has come up to its quota in the past along with the other States, but Maryland and Virginia have increased their contribution. The Office of Management and Budget didn't think it was advisable to go along with Virginia and Maryland. Is that about the situation?

Mr. EASTMAN. That is correct.

Mr. EVINS. When was the Commission created?

Mr. DIETZ. 1940 although I hasten to add at the beginning of the operation in 1940 the Commission was not on anywhere near the scale it has assumed since 1970.

Mr. EVINS. Our efficient clerk points out that the Federal Government started out making a contribution of \$5,000 to this Commission, then it jumped to \$20,000 and now \$34,000. Do you expect to continue expanding or putting on more personnel?

Mr. EASTMAN. We had planned to have two additional personnel for next fiscal year; one to work primarily on accounting because of the expansion of our responsibilities and an economist because of the increasing significance of our planning role under the Federal Water Pollution Control Act for meeting new water quality and effluent standards.

As a result of the reduction in our request to the Office of Management and Budget, we will have to defer the position of the economist until a later year, or drop it altogether.

Mr. EVINS. The President and the Congress are concerned. I think the fact that we have adopted a compact indicates the States and people are concerned. Are there questions?

Mr. MYERS. It seems to me the States have increased their contribution by 20 percent this year and yet the Federal Government is being asked to increase its contribution by 90 percent. Is that correct?

Mr. DIETZ. The Federal contribution this year is \$34,000 and we are asking for an increase of \$18,000 to a total of \$52,000 for next fiscal year, that is fiscal year 1975.

Mr. MYERS. What is the \$65,000?

Mr. DAVIS. That is for fiscal year 1976.

Mr. MYERS. I am sorry I will ask that question next year.

Mr. EASTMAN. We had to include two future fiscal years because we use this same form for justification of our contributions from the five signatory States. The State of Virginia is on a biennial budget so we had to include fiscal year 1976 as well as 1975 in our budget projection.

Mr. MYERS. I will ask the question next year then. Could you provide more detail regarding the grant from EPA?

Mr. EASTMAN. Under the Federal Water Pollution Control Act Amendments of 1972 as well as prior to the amendments water pollution control program grants have been authorized for State and interstate water pollution control agencies. Each year each of those agencies makes an application to the Environmental Protection Agency and justifies its program elements and activities for partial support in the form of a grant from the Environmental Protection Agency.

Mr. MYERS. In response to the chairman's question a moment ago, do they ever ask for any accomplishments or any successes?

Mr. EASTMAN. Yes. In fact, we just had a review completed by the Environmental Protection Agency Regional Office in Philadelphia of this year's programs.

Mr. MYERS. And they were satisfied?

Mr. EASTMAN. Yes.

Mr. EVINS. Gentlemen, we thank you for your appearance.

Mr. DIETZ. We appreciate the opportunity, Mr. Chairman.

Mr. EVINS. The committee stands adjourned.

TUESDAY, APRIL 9, 1974.

APPALACHIAN REGIONAL COMMISSION

WITNESSES

DONALD W. WHITEHEAD, FEDERAL COCHAIRMAN
ORVILLE H. LERCH, ALTERNATE FEDERAL COCHAIRMAN
HARRY TETER, JR., EXECUTIVE DIRECTOR
FRANCIS E. MORAVITZ, DEPUTY EXECUTIVE DIRECTOR
BRINLEY J. LEWIS, BUDGET OFFICER

Mr. EVINS. The committee will come to order.

We have with us this morning the Appalachian Regional Commission.

Mr. Chairman, you may proceed.

Mr. WHITEHEAD. Thank you very much, Mr. Chairman. I would like to submit my full statement for the record but to summarize it right now, if I may.

Our budget request for fiscal 1975 totals \$295,240,000. The salaries and expenses portion of this request is for \$1,740,000. This provides \$290,000 for the Federal cochairman's staff and \$1,450,000 for the 50-percent Federal contribution toward the administrative costs of the Commission.

The \$293.5 million requested to carry out the Appalachian program represents an increase of \$23.5 million over 1974. It includes \$160 million for the highway program and \$133.5 million for all other than highway programs.

The \$160 million requested for the entire highway program includes \$145 million for development corridors, \$12.9 million for access roads and \$2.1 million for special planning efforts and administrative costs.

HIGHWAY PROGRAM ACCOMPLISHMENTS

Mr. Chairman, we'd like to report to the committee several significant accomplishments in the highway program achieved during the past year.

First, new corridors were designated in Alabama, Mississippi, and South Carolina, thus including for the first time all 13 States in the corridor system.

We have established revised State-by-State construction priorities, an important advance for the Commission. We have voted to permit Federal funding on four-lane construction at 70 percent. The Appalachian Act has always provided for Federal funding up to 70 percent, but until recently the Commission voluntarily restricted the Federal share on four-lane construction to 50 percent.

However, at the request of the States and to keep the Appalachian highway program funding equal with other Federal-aid highway funds, we are now funding at the 70 percent permitted by law.

In addition, Mr. Chairman, the States have made a commitment to maintain within Appalachia a level of highway expenditures at least proportionately equal to their past 5-year average.

We have also allocated, among the States, the remainder of the highway funds authorized through 1978 so the States can better plan and schedule their work.

By the close of 1975, we estimate that 2,600 miles of the 2,700-mile corridor authorized by the Congress will be committed, of which 1,530 miles will have construction either completed or under way.

We also estimate that about 750 miles of access road construction will be committed by the close of fiscal 1975, within the 1,600 miles authorized and the \$99.2 million allocated to this program.

AREA DEVELOPMENT PROGRAM

The area development program is a consolidation of four separate programs for which we are requesting \$125 million in 1975, an increase of \$19 million over the amounts appropriated in 1974 for the four separate programs proposed to be included under the single heading "Area development programs."

Under this consolidated program, Mr. Chairman, the Commission proposes to make a single allocation available to each State. This allocation will include an amount specifically provided for each of the subregions into which the State naturally falls. That is, northern, southern, and central Appalachia.

Within these allocations each State is expected to plan for and to propose those projects deemed essential to regional and State growth and development. The main difference from our current procedure is that the State will not be bound to predetermined allocations by individual programs. One State might feel it needs to place a larger proportion of its funds into vocational education projects. Another may find that the greatest need is for supplemental grants.

The States in the subregion will jointly agree on strategies for development of the subregion. Pursuant to these plans, the States would, as they do now, submit individual project applications for assistance under the ARC program. These projects, as before, could be of any of the four types included under the program. That is health and child development, mine area restoration, vocational education, and supplemental grants. The projects would have to meet the requirements specified under the particular section of the Appalachian Act as well as all commission regulations and guidelines promulgated under the act.

The Federal partnership and interest is thereby maintained by this and by the continuing requirement that all project actions require Commission approval, including the affirmative assent of the Federal cochairman.

AREA DEVELOPMENT FUNDS REQUESTED

We estimate the following needs for funds as they would have appeared in the categories previously used and as compared with 1974 appropriations. We estimate \$45 million in fiscal 1975 health demonstrations, for which \$43 million was appropriated in fiscal year 1974. We estimate \$5.5 million for mine area restoration projects, for which, \$4 million was appropriated in fiscal 1974.

We estimate \$28 million in vocational education projects for which \$25 million was appropriated in 1974 and we estimate \$46.5 million for supplemental grants in fiscal 1975 for which \$34 million was appropriated in fiscal 1974, a \$12.5 million increase.

In total we are requesting \$125 million for these area development programs compared to the \$106 million appropriated in fiscal year 1974.

These amounts represent the current estimates of the States as to their program needs and probable utilization of allocation. We would expect some changes from these estimates as the States find some individual projects cannot be funded because of local financing problems, changes in other Federal programs, or emergence of projects of higher priority.

The health demonstration program need is estimated, as I have mentioned, at \$45 million for planning, construction, equipment and operation of health and child development projects. The health portion of this program is estimated at \$23.7 million and includes some \$17.7 million for continuing 170 operating service projects and \$3 million for health construction and \$3 million for new health service projects. We are estimating a \$20 million need for child development of which some \$17 million is estimated as needed to continue funding some 200 existing and operating child development projects.

The mine area restoration program provides up to 75 percent of the costs of restoring abandoned mine areas. \$5.5 million is estimated for this program in fiscal year 1975, an increase of \$1.5 million over the \$4 million appropriated in 1974, to fund primarily surface restoration and acid mine drainage projects in some five States.

We estimate that \$28 million will be required in 1975 for the vocational education program to provide grants for the construction, operation, and equipment of vocational education school facilities. This \$28 million estimate includes \$5 million for operating and demonstrating projects, the same as 1974, and \$23 million for construction and equipment projects.

Under supplemental grants, \$46.5 million is estimated for the program whereby the Federal share of a grant-in-aid project may be increased to a maximum of 80 percent. In 1971 the Commission was authorized to provide so-called first-dollar grants or special basic grants, when there is insufficient basic money under regular Federal grant-in-aid programs. Increasing use is expected to be made of this feature in 1975. The primary cause for the estimated increase of \$12.5 million for this program results from the intense need for public

facility projects in the areas of water and sewer, sewage treatment, and solid waste disposal.

With the appropriation we are requesting today, Mr. Chairman, by June 30, 1975, we expect to have construction completed on 1,200 miles of the Appalachian corridor.

Mr. EVINS. That is completed through this year?

Mr. WHITEHEAD. Completed by the close of 1975.

Mr. EVINS. What is the current situation regarding the Federal contribution toward this program?

Mr. WHITEHEAD. The statute has always provided the Commission may fund up to 70 percent.

Mr. EVINS. I believe you funded at the 50-percent level on four-lane roads?

Mr. WHITEHEAD. Yes, sir. In the early days of the Commission it was decided to fund up to 70 percent on all highway work but four-lane construction. The heavy expenditures for four-lane highway construction was limited to 50 percent.

OTHER PROGRAM REQUIREMENTS

The \$8.5 million is requested for section 302 program activity in fiscal 1975 for the administrative expenses of local development districts and for research, demonstrations, and technical assistance programs. This will provide assistance to all 69 local development districts at a cost of \$4 million, fund a research and technical assistance program of \$2.5 million and provide \$2 million for education demonstrations and special demonstrations carried out by local development districts.

No request is made, Mr. Chairman, for appropriation for the housing fund for 1975, since unobligated balances on hand should be sufficient to carry out this program next year.

[The prepared statement of Mr. Whitehead follows:]

STATEMENT OF DONALD W. WHITEHEAD, FEDERAL COCHAIRMAN, APPALACHIAN REGIONAL COMMISSION

I appreciate the opportunity to appear before this subcommittee on behalf of the 1975 appropriation request for the Appalachian regional development programs and subregional budget approach. The budget request is for a total of \$295,240,000.

The salaries and expenses appropriation request is for \$1,740,000. This provides \$290,000 for the entire cost of the Federal Cochairmans' staff an increase of \$13,000. In addition, it provides \$1,450,000, an increase of \$235,000, as the 50-percent contribution toward the administrative cost of the Commission.

The major portion of the budget request is \$293.5 million requested to carry out the Appalachian programs. This is an increase of \$23.5 million over the 1974 appropriation. The request includes \$160 million for the highway program and an amount of \$133.5 million requested for the other-than-highway programs. I would like to summarize the major items concerning our budget request.

HIGHWAY PROGRAM

The largest single program in this appropriation is the highway program for which \$160 million is requested to fund both the Appalachian corridor system and the access road program. This budget request will bring appropriations for the highway program to a cumulative total of \$1,515 million, which is within the authorization of \$1,540 million through 1975.

The entire highway program during 1975 will obligate \$160 million, including \$145 million for development highways, \$12.9 million for access roads, and \$2.1 million for special planning efforts and administrative costs.

Over the past 12 months the Commission has completed a number of significant actions in the highway programs. About a year ago new corridors were designated in Alabama, Mississippi, and South Carolina, thus including all 13 States in the corridor system. More recently the Commission acted to establish revised State-by-State construction priorities and to permit Federal funding on four-lane construction at 70 percent, the same level now established by law for the non-interstate Federal-aid highway program. While the Appalachian Act has always provided for Federal funding up to 70 percent, ARC early in the program voluntarily restricted the Federal share on four-lane construction to 50 percent. At the request of the States, and to keep the Appalachian highway program funding equal with other Federal-aid highway funds, we are now funding at the 70 percent permitted by law. This Commission action was coupled with a revision and updating of our priority system so that higher priority highway segments from both a State and regional viewpoint would be advanced. In addition, the States have made a commitment to maintain within their portion of the region a level of highway expenditures at least proportionately equal to their past 5-year average.

The Commission also acted to allocate among the States the remainder of the funds authorized through 1978. By this action the States can better plan and schedule the work to be performed on priority highway projects over the next few years.

The Appalachian corridor system consists of 3,277 miles of highways, with 435 miles adequate and of which 2,692 miles would be authorized for construction. As of December 31, 1973, about 2,072 miles were in some stage of design, right-of-way acquisition or construction work, exclusive of preliminary location studies. Construction had been completed on 882 miles with an additional 407 miles under construction. By the close of 1975 we estimate that 2,600 miles of the 2,700 corridor miles authorized will be committed, of which 1,530 miles will have construction either completed or underway. The balance of the committed mileage will have right-of-way acquisition or design work initiated.

In addition to work on the Appalachian corridor system, short access roads can be assisted. These roads provide essential access to industrial sites or parks, educational facilities, important recreational areas or other sites having economic relevance, and are normally two-lane facilities of relatively short length. We estimate that about 750 miles of access road construction will be committed by the close of fiscal year 1975 within the 1,600 miles authorized and the \$99.2 million allocated to this program. As of December 31, 1973, 672 miles of access roads had been approved of which 413 miles were completed and 83 were under construction. By the close of fiscal year 1975 we expect that 560 miles will be completed with an additional 170 miles under construction.

AREA DEVELOPMENT PROGRAM

The area development program is the second largest Commission program and for which we are requesting \$125 million in 1975. This is an increase of \$19 million over the amounts appropriated in 1974 for the four programs proposed to be included under the heading area development programs.

In this program in fiscal year 1975 the Commission proposes to make a single allocation to each State. This allocation will include an amount specifically provided for each of the subregions in which the State falls. Three States, Tennessee, Virginia, and West Virginia are each in two subregions. Ten States are only in a single subregion. Within these allocations each State is expected to plan for and to propose those projects deemed essential to regional and State growth and development. The main difference from our current procedure is that the State will not be bound to predetermined allocations by individual program, such as health, supplemental grants. One State may feel that it needs to place a larger portion of its funds into vocational education projects, another may feel that supplemental grants should receive increased emphasis. The States in the subregion will jointly agree on strategies for development of the subregion.

Pursuant to these plans the States would, as they do now, submit individual project applications for Federal financial assistance under the ARC program. These projects, as before, could be of any of the four types included under the program, that is health and child development, mine area restoration, vocational education, and supplemental grants, and would, of course, have to meet the requirements specified under the particular section of the Appalachian Act covering those programs as well as Commission regulations and guide lines promul-

gated under the act. The Federal partnership and interest is maintained by this and the continuing requirement that all project actions require Commission approval including the assent of the Federal Cochairman.

I am describing elsewhere the variations among the subregions as to their general strategy for the investment of funds. In carrying out these strategies we estimate the following needs for funds as they would have appeared in the categories previously used and as compared with 1974 appropriations.

[In thousands of dollars]

	1974 appropriation	1975 estimate
Sec. 202, health demonstration.....	43,000	45,000
Sec. 205, mine area restoration.....	4,000	5,500
Sec. 211, vocational education.....	25,000	28,000
Sec. 214, supplemental grants.....	34,000	46,500
Total, area development programs.....	106,000	125,000

These amounts represent the current estimates of the States as to their program needs and probable utilization of allocations. During 1975 we would expect some changes from these estimates could occur as the States find some individual projects cannot be funded because of local financing problems, or other delays in being able to submit applications. In such case, other high-priority projects would be substituted by the State, which might change somewhat the amounts for each type of program. The proposed single allocation will permit us to readily respond to such changes in local needs and priorities as they relate to overall State development plans.

Funds for the area development program will be utilized to fund individually approved projects under the four programs as follows:

HEALTH DEMONSTRATIONS, SECTION 202

This program, for which \$45 million is estimated, provides grants for planning, construction, equipment, and operation of demonstration health projects, primary health care systems, and child development programs in selected areas throughout the region. Grants are made for up to 80 percent of construction and equipment costs and, during the first 2 years of services projects, may provide up to 100 percent of operating deficits of such projects. After those 2 years the Federal share may not exceed 75 percent of operating deficits for up to an additional 3 years. Projects funded include such health facilities as hospitals, diagnostic and treatment centers and outpatient services, home health services, and other projects designed to make medical services available to the residents of the areas. The health portion of this program is estimated at \$23.7 million. This includes some \$17.7 million for continuing approximately 170 currently operating service projects, and \$3 million for health construction and \$3 million for new health service projects.

The child development component includes infant and maternal care and nutritional services, day-care and infant and preschool education, and parent education. Demonstration programs will be conducted to provide, in conjunction with other State and Federal programs, a coordinated program plan for child development. We are estimating \$20 million for child development of which some \$17 million is estimated as needed to continue funding some 200 existing operating child development projects in fiscal year 1975.

MINE AREA RESTORATION, SECTION 205

Under the mine area program, Federal financial assistance is authorized for up to 75 percent of the costs of restoring abandoned mine areas threatened by subsidence or fire, or damaged by surface mining or acid mine drainage and which are required for the protection of built-up areas or which can provide much-needed level-land sites. Assistance is limited to publicly owned lands. An amount of \$5.5 million is estimated for this program in fiscal year 1975. This is an increase of \$1.5 million over the \$4 million appropriated for 1974 and is estimated to fund primarily surface restoration and acid mine drainage projects in some five States.

VOCATIONAL EDUCATION, SECTION 211

We estimate that \$28 million will be required in 1975 for the vocational education program to provide grants to States and local districts for assistance in the construction, operation and equipment of vocational education school facilities. Vocational education facilities are key elements in Appalachia for the training and upgrading of potential and existing labor force entrants in skills required in commercial and other vocations. The amount estimated for 1975 is \$3 million over the \$25 million appropriated in 1974. However, it represents a slight decrease in funding available for vocational education facilities since all vocational education funds are being shown under this head. Currently some \$5 to \$6 million of section 214 supplemental grant funds are utilized to supplement the vocational funds. During 1975 some portion of these vocational education funds may require the utilization of the section 214 supplemental authority, although no distinction as to that funding is made here.

The estimated \$28 million for fiscal year 1975 includes \$5 million for operating and demonstrating projects, the same as 1974, and \$23 million for construction and equipment projects.

SUPPLEMENTAL GRANTS, SECTION 214

An amount of \$46.5 million is estimated for the supplemental grant program primarily to assist Appalachian communities which have been unable to participate fully in regular construction grant-in-aid programs because of lack of local matching funds. Under this program the Federal share of the project may be increased to a maximum of 80 percent. The program in the past has been helpful in the attraction of State funds as well as a greater share of Federal grant funds into the Appalachian area. Although the Federal contribution may be as high as 80 percent, past experience has been that the total Federal contribution has been about 52 percent, and that Appalachian section 214 funds have comprised 17.7 percent of total program costs. In 1971 the Commission was authorized to provide special basic grants when there is insufficient basic money under regular Federal grant-in-aid programs to permit funding of projects. Increasing use is expected to be made of this feature which will probably result in an increase in the overall proportion of ARC funds to total cost.

The primary cause for the estimated increase of \$12.5 million for this program over the 1974 appropriation results from the need for about \$31.8 million for public facilities projects in the areas of water, sewer, sewage treatment and solid waste disposal. Through fiscal year 1973 1,752 projects had been approved for about \$295 million in ARC funds.

That concludes the description of the four programs included under the area development program activity.

SECTION 302 PROGRAM

The amount of \$8.5 million is requested for this activity which finances the Federal contribution toward the administrative expenses of local development districts and projects for research, demonstrations, and technical assistance programs aimed at satisfying regionwide, State, and district needs. During 1975 the Commission will provide assistance to all 69 local development districts at a cost of \$4 million, and will provide for a research and technical assistance program of \$2.5 million. The request includes \$2 million for demonstrations in the program areas of education and special demonstrations particularly related to multi-functional and multijurisdictional demonstrations developed and carried out by local development districts.

No request for funds is made for the housing fund for 1975. Unobligated balances on hand should be sufficient to carry out this program in 1975.

IMPROVEMENTS IN REGION

MR. WHITEHEAD. I have a short slide presentation I would like to show to the committee to illustrate some of the points made in my statement.

MR. EVINS. Very well.

Mr. WHITEHEAD. We have some good news, Mr. Chairman, to report to the committee.

Mr. EVINS. Your reports are always impressive.

Mr. WHITEHEAD. Some of these things are difficult to illustrate, but I have some important points to bring to your attention and to tell you of some advancements and good news in the region.

This chart shows for the first time in many decades a reversal in the outmigration from which the region has suffered throughout most of its recent history.

As you know, Mr. Chairman, Appalachia has been a fountain of outmigration for generations. This is the first turn-around in that picture to be reported in half a century.

During the decade between 1950 and 1960, for instance, migration out of the region was 12.5 percent. Between 1960 and 1970, this rate of outmigration was cut in half, but it was still substantially, 6.2 percent of the population migrating out during that decade.

Now, Mr. Chairman, for the first time in 50 years we can report a turnaround and we can see that a portion of an increase in the population's resulting from increasing immigration.

The number is small. The percentage is modest, 4.3 percent. Nevertheless, it is a universal of the trend we have seen over the past generation and we think it is increasingly significant for the potential of the region.

Mr. DAVIS. Is that consistent with respect to all three of your subregions?

Mr. WHITEHEAD. Yes it is, and I will show later slides to indicate that while there are variances in some parts of the region where these figures are more dramatic, it is a trend consistent throughout all of the region, which is an important point.

The second bit of good news lies in the emerging energy crisis and the potential that has for rehabilitation and recovery for large portions of Appalachia. The map indicates what a heavy percentage of the bituminous coal reserves of the United States underlie the Appalachian region. Mining is, of course, both a problem and an opportunity. It is a problem because it raises certain issues that must be brought up, including operational safeguards, taxing policies and so on, but the potential is there for an important resource that can benefit the citizens of Appalachia. Not just for increased employment, but for the increasingly skilled and high-paid employment required for operating a modern mine.

The Commission is attempting to refine its program to keep pace with these changes in the region and take advantage of them. For planning and budgeting purposes we are breaking down the region into several geographic components, hopefully to focus and concentrate our efforts, to make our development efforts a little more purposeful than they have been in the past, and to help us meet the statutory mandate given by the Congress that we invest our dollars where the return for the Federal investment will be the greatest and in those parts of the region having the most significant potential for future growth. I will explain later what I think that is.

NORTHERN APPALACHIA

Let's take a look at northern Appalachia. Northern Appalachia boomed during the latter 19th century due to three things. Its proximity to eastern markets, the availability of cheap transportation furnished by railroads and because of its rich natural resources. But later these advantages were lost, and by the mid-20th century, as railroads have declined and new technologies made older factors obsolete, a deterioration of the cities began and the degradation of the environment contributed to a downslide. Communities lost major employment sources, commerce declined, and the quality of the labor force deteriorated. As a result, we had a stagnating economy and a deteriorating physical structure. But in spite of these difficulties, northern Appalachia possesses certain basic advantages. Still close to major population centers, primarily outside the region, it has a basic urban structure that can be built upon and a considerable natural resource base.

So we see in northern Appalachia the same kind of migration trend, without such sharp changes, that we saw in the region as a whole. Northern Appalachia went from 9 percent outmigration in the 1950's, to 7 percent outmigration in the 1960's, with a current in-migration trend rate of 2 percent.

NORTHERN APPALACHIA PER CAPITA INCOME

What is the pattern of per capita income in northern Appalachia? Income is rising in terms of numbers of dollars. As shown by this chart, raises from 1950 income of about \$1,500 per capita to better than \$3,500 per capita in 1971.

I would point out, however, that the percentage of the northern Appalachian per capita income compared to the United States has remained relatively stagnant during that time; 88 percent in 1950 and it is only 89 percent today.

Mr. EVINS. Is there any significance that that chart is drawn on a \$2 bill?

Mr. WHITEHEAD. I do think there is significance. I think the basic reason is there has been an increase in dollars but no gain relative to its use, primarily because of inflation.

NORTHERN SETTLEMENT PATTERNS

The railroads determined the settlement pattern of northern Appalachia. The existence of the railroads permitted middle-sized northern cities to participate in and benefit from the industrial revolution in a way that wasn't possible for many areas of the country. This permitted small intermediate cities to link themselves up with each other in a pattern of settlement that we find existing even today. These railroads which determined the early settlement patterns are still important to Appalachia and their continued existence is still critical.

This is a schematic of a typical northern Appalachia settlement pattern. The green squares would represent the middle-size cities. For instance, Elmira, Altoona, Johnstown, Erie. Surrounded by an outlying frequently rural population which looks to the population center for virtually all of its public and private services. There is generally one

of these medium-size centers in each county which would be represented generally by the dark blue area.

Our job in this part of Appalachia then is to relate our investments somehow with each other to recognize that this is the kind of structure around which northern Appalachia has evolved.

ENVIRONMENTAL PROBLEMS

Environmental insults plague all of Appalachia, but in northern Appalachia a particular problem is cleaning up mine refuse, trying to prevent the subsidence of land and buildings into abandoned mine excavations, by drilling down from the surface to the old mines, trucking mine refuse to where it can be mixed in a plant with water to form a kind of slurry that can be pumped underground to provide surface-supporting material, while at the same time it cleans up a surface eyesore.

We are also converting open dumps to sanitary landfills. This is a necessary but not an easy operation. It requires not only time and money, but more important, community leadership. For instance, to find acceptable disposal locations is not an easy task. Not everybody wants a landfill in his backyard, and to negotiate an acceptable site is an important and difficult problem. It is also necessary to balance competing demands and devise the most economical collection route for a sometimes dispersed rural population, particularly in central and southern Appalachia.

Most important, it requires considerable finesse on the part of local leaders to negotiate multicounty arrangements for sharing costs of operating one of these landfills and sharing control of its operations.

HUMAN RESOURCES PROJECTS

Currently the ARC child development projects fund 350 child care centers throughout the region and in one way or another serve 125,000 children. But, important as those numbers are, they are no more important than the Commission's requirement that the planning for these projects integrate State level agencies in health, mental health, welfare, and education.

We require those agencies to work together cooperatively for the first time on the State and community level.

To upgrade the local labor force, we are building vocational and technical schools for secondary, postsecondary, and adult students throughout the region.

By last fall, Mr. Chairman, we had 300 such facilities open and in operation with some 200,000 students enrolled. Not confined to dead end curriculums in home economics or agriculture, but training for such job relevant courses as computer science, machine shop operations, modern printing employment, and skilled welding techniques among others.

Last year the Commission was given national recognition for a part of its health program when the Department of HEW selected one of our health councils in northern Appalachia for its own rural demonstration in emergency medical services. They made the selection in part, we are advised, because of the foundation and facilities, services and comprehensive planning sponsored by the Commission.

The communications console you saw links ambulance, hospital, sheriff, State police, with doctors and specialists to provide the emergency assistance needed.

SOUTHERN APPALACHIA

As northern Appalachia attempts to recover what it once had, southern Appalachia is building for the first time as it urbanizes and industrializes. Here population growth is the most pressing problem. Community infrastructure becomes inadequate. Housing is in short supply. Schools and hospitals are crowded and we need new construction to accommodate all of this. Because southern Appalachia is in transition from an agricultural and resource-based economy to growing service and trade sectors, it is expanding its manufacturing facilities.

This growth is accompanied by significant advances in population, housing and income. Here we have data on migration indicating a rate of 10-percent outmigration in the 1950's, dropping to 2-percent outmigration in the sixties, but a 6-percent net in-migration rate beginning in 1970.

Half of the population migration that we can measure is occurring in southern Appalachia.

How does its per capita income compare with northern Appalachia? In contrast to northern Appalachia, southern Appalachia has shown improvement relative to the United States as a whole. Not only is there a per capita dollar increase from something in the neighborhood of \$1,000 to better than \$3,000 per capita but even more significantly, relative to the U.S. average, southern Appalachia is increasing its proportion from 61 percent in 1950 to 78 percent in 1971.

SOUTHERN SETTLEMENT PATTERNS

The settlement pattern in southern Appalachia is much more complex; there is a much more sophisticated hierarchy of large metropolitan centers, some of them just on the fringe of the region, with intermediate cities and smaller towns and hamlets within the region's boundaries.

The familiar pattern results largely from the agricultural heritage of the South which supported the creation of small local markets for farm produce which in turn served larger markets which in turn supported even larger markets and commodity centers.

Our problem at the Commission now is to assist the South in achieving a balanced growth, to prevent some of the mistakes that have occurred in the North where population centers have become overcrowded. We have got to find a way to make our access road investments assist growth at the right time, in the right place and in the right way. That means building up with access roads, sewer and water systems, the second and third order of population centers.

We have got to supplement them with sewage treatment facilities and other infrastructure improvements necessary to create the conditions under which industrial parks will attract modern tax-paying, high-wage diversified industry.

But we must also tackle the harder problems to remove the present barriers to growth in southern Appalachia, throwing off the shackles

of ignorance and opening men's minds through education, just as we care for their physical needs in extended care facilities or hospitals since, in the last analysis, a physically, mentally and emotionally healthy populace will be required to select and support the enlightened leadership southern Appalachia's vitalization will demand.

CENTRAL APPALACHIA

To most people "Appalachia" brings to mind the severest poverty, the worst health, educational and social conditions as represented by the hard scrabble existence of the lone mountaineer.

But the problem is really more complex than that, Mr. Chairman. Central Appalachia's problems are created basically by its topography which has forced fairly dense population settlement on small pockets of land where the scarcity of flat developable land has prevented large-scale growth.

Central Appalachia is characterized by isolation resulting from the rugged terrain.

Commercial scale agriculture is prevented. Settlement is confined to narrow strips squeezed along the valleys between mountain and river, linked to neighbors by torturous winding roads like beads on a string. These factors dictate a development strategy which will create linkages between several smaller towns located in relative proximity to each other, so that collectively and in the aggregate they can provide the public and private services for an outlying rural population.

This means selective creation and improvement of the necessary infrastructure.

CENTRAL APPALACHIAN: MIGRATION AND INCOME

Fortunately central Appalachia shares the region's general migration reversal, but here it is even more dramatic.

From 33 percent net out-migration in the 1950's to 10 percent immigration rate thus far in the 1970's is a really stark, dramatic turnaround. This is important since 90 percent of the Commission investments in central Appalachia have dealt with people, and with human resources development; a strategy which will pay off, if the quantity and quality of labor, once a detriment to growth in central Appalachia, now becomes an attractive asset.

To bring its income figures even with the rest of the region, let alone the United States, central Appalachia must capitalize on the labor force improvement. It must now have an enterprise development strategy and look for the emergence of effective local leadership.

Here in central Appalachia, the per capita dollar income is not so great as in the rest of the region, either in terms of actual dollars, or in percentage of the U.S. average, but we still do see the general trend of improvement relative to the United States as a whole that we saw in the South. The income, from 50 percent of the national average in 1950 to 60 percent, is a better record in that respect than in the more stable northern Appalachia.

Within the corporate limits of one small city, developable land was so scarce, so badly needed, that an abandoned strip mine was leveled

off with ARC assistance and as part of an areawide plan a modern school built upon the reclaimed site.

With the support of this committee, ARC has been demonstrating techniques for cleaning up the region, for instance, in junk car removal. We have learned a lot in the past year. We have learned, for instance, it can be done, but requires strong support at the State level, both from the executive and legislative branches.

We are also, as you know, working to open up central Appalachia for better transport to jobs, to schools, to hospitals, by all means available, by air as well as auto, and eventually we hope to include rural mass transportation to bring travel costs within the reach of more central Appalachia.

Central Appalachia—contains some of our most advanced health planning and some of our health projects are classic textbook demonstrations of the primary care concept of providing medical care to dispersed rural populations by augmenting the services of scarce physicians through the use of allied health professionals in a single entry system linking hospitals, satellite clinics, home care, communications, all on an areawide basis, everybody working cooperatively together.

Now, the good news for our highway system is that one-third is now already completed and open to traffic. Half will be completed or under construction by June of next year, but we recognize we still have a long way to go and much to do.

HIGHLANDS APPALACHIA

The Fourth Appalachia is Highlands. It overlays the other three as it constitutes the Appalachian Mountain crests. Together with selected sites in Ohio and Mississippi, it will benefit from a special demonstration set-aside designed to capitalize on its natural beauty which gives it potential for recreation, tourism, and environmental development.

Its moods, its vistas, its seasons defy description and must be experienced to be believed.

Thank you very much for your attention, Mr. Chairman.

Mr. EVINS. A very impressive slide presentation.

I wish more could have heard you and seen your slides.

JUSTIFICATION MATERIAL

We will insert the justifications in the record at this point.
[The information follows:]

APPALACHIAN REGIONAL COMMISSION
SUMMARY OF APPROPRIATIONS BY ACTIVITY

(thousands of dollars)

	<u>1974</u> <u>Enacted</u>	<u>1975</u> <u>Estimate</u>	<u>Increase/</u> <u>Decrease</u>
1. Appalachian Regional Development Programs:			
A. Area Development			
Health Demonstration, 202	43,000		
Mine Area Restoration, 205	4,000	125,000	+19,000
Vocational Education, 211	25,000		
Supplemental Grants, 214	<u>34,000</u>		
Subtotal	106,000	125,000	+19,000
B. Research, Demonstration and LDD, 302	7,500	8,500	+ 1,000
C. Housing Fund, 207	<u>1,500</u>	<u>0</u>	<u>- 1,500</u>
Total, Other Than Highway	115,000	133,500	+18,500
D. Highway Program, 201	<u>155,000</u>	<u>160,000</u>	<u>+ 5,000</u>
TOTAL APPROPRIATION	270,000	293,500	+23,500
2. Salaries and Expenses:			
Federal Cochairman and Staff	277	290	+ 13
Federal Share of Commission Expenses	<u>1,215</u>	<u>1,450</u>	<u>+ 235</u>
TOTAL APPROPRIATION	<u>1,492</u>	<u>1,740</u>	<u>+ 248</u>
GRAND TOTAL	271,492	295,240	+23,748

GENERAL STATEMENT

The Appalachian Regional Development Program was established in 1965 to assist the Appalachian Region in meeting its special problems, to promote its economic development, and to establish a framework for joint Federal and State efforts in several directions, including the provision of basic facilities essential to the Region's growth. It was the expectation of the Congress that the Appalachian Region would generate a diversified industry and be able to support itself through the workings of a strengthened free enterprise economy. As reported later in this budget, the Region has been improved and strengthened partly through the efforts of this program.

The Appalachian Regional Development program has undergone some changes in emphasis over its history. A number of programs have been discontinued while others have grown in relative importance. These changes have reflected changes in other Federal programs as emphasis has shifted to reflect changing national patterns of governmental concern and as relative priorities in the Appalachian Region have changed. Similarly, there have been a number of changes in the manner by which funds for the Commission's programs have been authorized and appropriated. These have moved from individual program authorizations and appropriations toward multi-program authorizations and a single appropriation. This budget represents a further innovation in the Commission's continuing attempts to provide the funds and the Federal-State partnership mechanism to assist in the meeting of many of the Region's needs. It evidences this administration's commitment to provide Federal assistance in accordance with priorities of need established at the State and local level.

The budget proposes that funds for four Appalachian non-highway grant programs previously carried as individual items be provided as a single program for block allocation to the Appalachian States for implementing programs of area development. Emphasis will be placed on conducting area development activities within the three subregions and the overlaying Highland area of Appalachia by an allocation system permitting each Appalachian State greater flexibility in the types of projects undertaken.

The projects included under this Area Development program activity will continue to be of the same types as were previously conducted under the four separate activity headings, namely; health and child development projects, Section 202; mine area restoration projects, Section 205; vocational education facility projects, Section 211; and projects conducted under the supplements to Federal grant-in-aid programs, Section 214. The allocation system will permit each State to plan the utilization of its allocations by selecting the amount and type of projects, or project mix, as will best meet its State Plan for development in 1975. As at present, individual projects will continue to require Commission approval and will be administered and monitored by the appropriate Federal agencies. The highway program, Section 201; the housing program, Section 207; and the program for local development district support, research, and demonstration, Section 302 will continue to be administered as at present with no change in allocation or approval procedures.

This budget request is for a total of \$295,240,000 to carry out the Commission's program for the Region in FY 1975. The major portion of the request is for the appropriation "Appalachian Regional Development Programs" which finances the programs and assistance to the Appalachian Region. The estimate for these programs for FY 1975 is \$293.5 million of which \$160 million is for the highway program. The amount of \$133.5 million requested for programs other than highways provide \$8.5 million for the support of research, demonstrations, and local development districts (an increase of \$1 million over FY 1974) and \$125 million for the area development programs. The budget for area development programs is an increase of \$19 million over the amounts provided in 1974 for the four programs under this head. The 1975 budget request for the entire Appalachian Regional Development Programs appropriation will provide a total increase of \$23.5 million over the comparable 1974 appropriation, including a \$5 million increase in the highway program and a decrease of \$1.5 million in the Housing Fund, where no additional appropriations are requested for 1975.

The request for "Salaries and Expenses" which provides for the 50 percent Federal contribution for Commission staff and the full cost of the Federal Cochairman's staff is for \$1,740,000. This includes \$1,450,000 for the Federal contribution to the Commission's administrative expenses in 1975. The Act requires that the member States

and the Federal Government both contribute 50 percent of the cost. This Federal contribution will be matched by an equal amount from the 13 member states and will provide for a Commission Administrative budget of \$2,900,000 in 1975. The budget also includes an amount of \$290,000 for the expenses of the Federal Cochairman's staff in 1975.

Appalachian Regional Development Programs

The budget request of \$293.5 million for this appropriation consists of three items. The largest amount, \$160 million, is for the Appalachian Development Highway System authorized under Section 201 of the Act. This represents an increase of \$5 million over the appropriation for 1974 of \$155 million. The budget request of \$160 million will provide for approximately \$145 million of high priority development highway requests and nearly \$13 million of needed access road projects during FY 1975, and will continue the program for special planning studies for economic utilization in selected areas within the several States.

An amount of \$125 million is requested for the second item, Area Development programs. During 1974 a total of \$106 million was appropriated for four programs now proposed to be consolidated under this heading; health and child development, Section 202; mine area restoration, Section 205; vocational education facilities, Section 211; and supplements to Federal grant-in-aid programs, Section 214. The request will provide an increase of \$19 million over the 1974 appropriation. The program proposes a block allocation of funds to States for carrying out projects of the four types described above in a proportion determined by the States to provide the best project mix so as to best carry out their development plans during 1975, in accordance with the investment strategies devised by the States and as approved by the Commission to meet the problems common to the geographic subregions in which they are located.

The third item is the programs of support to research, demonstrations and local development districts for which the amount of \$8.5 million is requested. This is an increase of \$1 million over the amount appropriated for 1975. The increase is primarily for the increased level of support for the 69 local development districts in the Region.

No additional appropriations are requested for the final item, the Appalachian Housing Fund. It is estimated that unobligated balances on hand after providing for 1974 operations under this fund will be sufficient to fund a desirable level of program in 1975 without further appropriations. This represents a decrease of \$1.5 million from the 1974 appropriations.

The following table summarizes the comparable appropriation and obligation requirements for fiscal years 1974 and 1975.

Program by Section of the Act	(thousands of dollars)					
	FY 1974		FY 1975		Increase/Decrease	
	Obliga.	Approp.	Obliga.	Approp.	Obliga.	Approp.
201 - Highways	186,036	155,000	160,000	160,000	-26,036	+ 5,000
Area Development Programs:						
202 - Health Demonstration	50,872	43,000	---	---		
205 - Mine Area Restoration	14,875	4,000	---	---		
211 - Vocational Education	25,011	25,000	---	---		
214 - Supplemental Grants	38,026	34,000	---	---		
Sub Total	128,784	106,000	125,000	125,000	- 3,784	+19,000
302 - Research, Demonstration and LDD	10,510	7,500	8,500	8,500	- 2,010	+ 1,000
207 - Housing Fund	3,692	1,500	2,127	---	- 1,565	- 1,500
Totals	329,439	270,000	295,627	293,500	-33,812	+23,500
Less Use of Unobligated Bal. Balances Carried Forward to 1975 (Section 207)	-61,366	---	- 2,127	---	+59,239	---
	1,927	---	---	---	- 1,927	---
Appropriation	270,000	270,000	293,500	293,500	+23,500	+23,500

Summary of Budget Request for 1975

Section 201 - Highway Program (Page 11)

The appropriation request for FY 1975 includes \$160 million for the Appalachian Development Highway Program. This is an increase of \$5 million over the 1974 appropriation and when added to previous appropriations will provide a cumulative amount for the program of \$1,515 million and is within the authorized amount of \$1,540 million through 1975.

The requested appropriation language includes phraseology similar to past years establishing the amount of the cumulative appropriations as the limit on obligations. This language limits the use of budget authority to exclude the contract authority for FY 1976 which under the terms of the Appalachian Act would otherwise be available for obligation in the prior fiscal year, namely FY 1975.

The budget request will provide approximately \$145 million to high priority development highway projects, \$12,900 for access roads, and \$2,100 for the special highway planning program and administrative costs divided in nearly equal amounts. By the close of FY 1975 it is estimated that a total of 1,530 of the 2,700 miles of authorized corridors and 730 miles of access roads will have been contracted for construction and virtually all of the engineering design underway on the development corridors.

The Appalachian highway program is designed in conjunction with the Interstate system and other Federal-aid highways in the Region to open up areas with development potential where such development has been inhibited by lack of adequate access. The intent of the program is to improve these roads at a faster rate than could otherwise be accomplished through the use of funds available to the States through the use of the non-Interstate portion of the Highway Trust Fund. The development highways when completed are integrated into the Federal-aid highway systems.

Area Development Program (Page 24)

Under this activity \$125 million is requested for block allocation to the 13 Appalachian States for implementing a program of area development. The funds will be utilized by each State to provide during the fiscal year financial support for constructing and supporting those facilities and operations deemed most essential to the growth and economic development of the Region and the State.

Emphasis will be placed on coordinating area development activities within the Region by an allocation system permitting greater State flexibility in the types of projects undertaken with increasing attention to coordinated State strategies aimed at common problems within the four geographic subregion areas of Appalachia.

The projects which can be effectuated by States may include the appropriate project mix of four types of programs depending on the individual State Plans adopted within the context of the subregional program strategies. The four types of projects will be those within ARC legislative authority for which funds were separately provided in FY 1974 as follows:

	(thousands of dollars)
	<u>1974 Enacted</u>
Section 202 - Health and Child Development	43,000
Section 205 - Mine Area Restoration	4,000
Section 211 - Vocational Education Facilities	25,000
Section 214 - Supplemental Grant Programs	<u>34,000</u>
Total for 1974	106,000
Increase requested	<u>19,000</u>
Total for 1975	125,000

As before individual projects as authorized will be approved under these four programs upon application by the State member and approval of the Commission.

Section 202 - Health Demonstrations (Page 34)

Grants are provided for planning, construction, equipment and operation of demonstration health projects in selected multi-county areas throughout the Region. These comprehensive health development projects include hospitals, regional health diagnostic and treatment centers, and other health facilities and services. The demonstration program is envisioned to provide for a flexible non-categorical approach to the development of health demonstration projects through comprehensive community planning on a multi-county, medical trade area basis and implementation of that planning through service programs. Support of primary health care systems may also be provided for other areas.

The program will continue support for a child development component including infant and maternal care services, nutritional services, day care and infant pre-school education, nutrition, and parent education. Demonstration programs will be conducted to provide in conjunction with other State and Federal programs a coordinated program plan for child development.

Through FY 1974 grant support is estimated to have been provided 585 health operations and services projects, 127 health facilities construction projects and 370 child development operations projects. Under the terms of the Act, construction grants may be made for up to 80 percent of project costs. Support for operating and service type projects may be up to 100 percent for two years and 75 percent for three additional years.

Section 205 - Mine Area Restoration (Page 44)

Federal financial assistance is authorized for up to 75 percent of the cost of restoring abandoned mine areas damaged by subsidence, fire, or surface mining and which have potential for economic growth. Through FY 1974 it is estimated that financial assistance will have been given to 34 mine fire projects, 15 mine subsidence projects and 21 projects for surface restoration, oil and gas well sealing and acid mine drainage projects.

Section 211 - Vocational Education Facilities (Page 49)

The program provides grants to States and local districts for assistance in the construction, equipment, and operation of vocational education school facilities at both secondary school and post-secondary levels. Vocational education facilities are key elements in Appalachia for the training and upgrading of potential and existing labor force entrants in skills required in commercial and other vocations. Vocational education is particularly important to the Region because a smaller proportion of students continue their education beyond high school than is the average in the United States.

Through FY 1974 the program is estimated to have approved 495 construction and equipment grants and 88 grants for operating and demonstration projects. When those projects are completed it is estimated that we will have provided the region with facilities for approximately 190,000 secondary and 45,000 post-secondary students.

The funds provided here are in addition to funds that have been regularly available to States and localities through the regular Vocational education program administration.

Section 214 - Supplemental Grants (Page 55)

The supplemental grant program was initiated to assist the Appalachian communities which have been unable to participate in regular construction grant-in-aid programs because of lack of local matching funds. Under this program the Federal share may be increased to a maximum of 80 percent. The program in the past has been helpful in the attraction of State funds as well as a fair share of Federal grant funds into the Appalachian area. Although the Federal contribution may be 80 percent, recent program history has been that total Federal contribution has been slightly over 50 percent, and that Appalachian Section 214 funds have comprised about 18 percent of total program costs.

Under the 1971 amendments this program may also provide special basic grants when there is insufficient money under regular Federal grant-in-aid programs to permit funding of necessary projects. Increased use has been made of this authority in 1973.

Since inception this program has assisted 1,752 projects for a total of \$295 million. During 1974 grant assistance for 160 projects is estimated.

Section 302 - Local Development Districts, Research, and Demonstration (Page 61)

The amount of \$8.5 million is requested for this activity which finances the Federal contribution toward the administrative expenses of local development districts and projects for research, demonstrations, and technical assistance programs aimed at satisfying regionwide, State, and district needs. During 1975 the Local Development District program will provide assistance to approximately 69 such districts at a cost of \$4 million. The program will also provide for a research and technical assistance program, including State management assistance for \$2.5 million. The request includes \$2 million for demonstrations in the areas of education and special demonstrations particularly related to innovative multi-functional and multi-jurisdictional efforts of local development districts.

Section 207 - Appalachian Housing Fund (Page 69)

This program provides for several ways of assisting the Region in obtaining a larger share of housing for low- or moderate-income families. These include technical assistance grants for the organization of State housing corporations and local non-profit groups to encourage such housing construction.

Under the 1971 Amendments to the Act, grants may be made for site development costs and offsite improvements such as sewer and water line extensions where necessary for economic feasibility of the housing project. Grants for such purposes may not exceed 10 percent of the project cost. It is estimated that the program in 1975 will provide for approximately 6 technical assistance grants, 7 site development grants to assist approximately 7 projects, as well as 22 planning loans for approximately 2,500 housing units. Through 1973 there were approved 107 planning loans for some 12,000 housing units, of which some 7,600 units are currently anticipated to go to construction.

Salaries and Expenses (Page 75)

The request for \$1,740,000 for this appropriation includes an amount of \$290,000 for the Federal Cochairman and \$1,450,000 for the Federal contribution to the administrative expenses of the Commission.

The amount of \$1,450,000 consists of the 50 percent Federal contribution to the administrative expenses of the Commission and is matched by an equivalent contribution from the States. These amounts finance 88 staff positions of the Commission, additional positions for the administration of the LDD, research and health demonstration projects continue to be funded from those programs. Staff remains at 110 for 1974 and 1975, a reduction of 5 from the 1973 level.

GOALS AND OBJECTIVES

The Appalachian Regional Commission has as its overall goal the acceleration of economic and human resource development in a vast geographic region made up of West Virginia and parts of Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee and Virginia. Efforts to achieve this goal have focused on the development of Appalachia's human and natural resources, the provision of improved transportation systems and other basic infrastructure and, where necessary, the organization of new institutional structures to plan and carry out economic and social development programs.

Unique in its stature as an independent agency and its Federal-State-Local structure, the Commission operates on the premise that the people are in the best

position to identify their problems and that, given the proper financial and technical assistance, they are capable of solving those problems through a carefully planned and phased public investment and institutional development program.

The Appalachian program is, in fact, an experiment in which the people and their governments at every level have launched a cooperative effort to build a better way of life for the more than 18 million persons who reside in Appalachia.

The Appalachian Experiment

In his 1972 Message on Revenue Sharing the President stated in part:

Almost all of the success stories that can be found in rural economic development have occurred because local officials and private leaders have entered into a public-spirited partnership and have taken the initiative. We must do all we can to encourage such partnerships.

In the same address, the President also commented:

I believe that a major missing ingredient has been effective control of development programs at lower levels of government. Because we have relied so exclusively on Federal funds...too many decisions have been made in Washington and too few have been made in rural America...I believe we should return power to officials who are selected at the State and local levels.

The concepts embodied in the President's statement are similar to those upon which the Appalachian program operates. The Appalachian Regional Commission and its program have proved a innovative experience by devising new, more workable means for utilizing public funds in a way that is responsive to the needs and wishes to the people. The current budget proposes an extension of these policies by providing the States, and through them the communities and local development districts, with an increased ability to plan their overall development program with a minimum of artificial restraints.

Appalachian Commission Structure

The Commission is set up on the following basis: a Federal Cochairman (appointed by the President with Senate confirmation), and the Governors of the 13 States. Serving as counterpart to the Federal Cochairman is the States' Cochairman (the Governors each serve a six-month term in this position). The Act also provides for an alternate Federal Cochairman appointed by the President.

Each of the Governors names an official State Representative, along with an alternate, to assist him with duties relating to the Appalachian program and to represent him at Commission meetings. The Governors collectively have created the position of States' Regional Representative to give him a day-to-day voice in program administration.

Both the Federal Cochairman and the States' Regional Representative maintain small staffs to assist them with their duties. The Federal staff is supported entirely by Federal funds; the States' staff by State funds.

A program or project proposal can be brought before the Commission only by the State member involved. All formal actions require the affirmative vote of the Federal Cochairman and a majority of the State members. To facilitate continuing policy administration, however, the Commission has given authority, including project approvals, to an Executive Committee composed of the Federal Cochairman, the States' Regional Representative as voting members and the Executive Director of the Commission supportive staff as a nonvoting member.

The primary responsibilities of the Commission acting through its supportive staff and working with the States are:

- . To develop, on a continuing basis, comprehensive and coordinated plans and programs for the development of the Region;
- . To implement these plans through financial assistance, provided under the Act, for the appropriate programs and projects;
- . To provide technical assistance to the States and local development districts in implementing the Appalachian program; and
- . To serve as a focal point for coordination to Federal and State efforts in Appalachia.
- . To sponsor and initiate research on problems facing the Region.

The Investment Strategy

The Appalachian Regional Development Act mandates certain actions and procedures with respect to investment placement. The Commission was directed to concentrate its investments in "areas with a significant potential for future growth where the return on the public dollars invested will be the greatest".

Based on the reasoning that individual States are best qualified to determine those areas within their boundaries having the greatest potential for growth, responsibility for identifying such areas was given to the States. These growth areas have been assigned the highest priority for concentrations of public effort and investments under the ARC program. However, two important exceptions have been made with regard to this strategy: projects outside growth areas may be included if it is demonstrated that they will have a direct and substantial impact on a growth area; projects directed toward human resources development may be located in areas where they will serve concentrations of people even though the location is not a growth area. The justification for the latter is that such projects serve a regional development objective by providing the Region's population with the basic health and skills necessary to compete in the labor market wherever they choose to live. Secondly, the development of Appalachia's human resources in all portions of the Region is important to the development of growth areas, which are likely to draw on large portions of the Region for their labor force needs, either through commuting or the eventual shifting of population.

A prerequisite to making sound investments is planning, which to be effective, must be responsive to the needs and desires of the people. In order to achieve this responsiveness and to encourage planning that would result in a higher level of public services provided with increased efficiency through the achievement of economies of scale, a network of multi-county local development districts was created. These districts are governed by boards composed of elective officials, civic leaders and others chosen to represent the local population.

Local development districts (LDDs) are charged with responsibility for encouraging local governments to work together in assessing their needs and combined potentials, to prepare public investment strategies designed to meet the needs and develop the potentials identified, and to use their combined resources in accord with this strategy.

The reasoning and strategies developed by the LDDs are expressed in a planning document which is submitted to the Governor for incorporation into a State Appalachian Development Plan in accord with the overall development goals and policies of the State. The State plans then go to the Commission for review and approval. Once approved, the plan becomes the "road map" followed by the Commission and the State in policy decisions and in the actual implementation of programs and projects.

The Commission itself has opened a new channel between the Appalachian States and a multitude of Federal agencies. Appalachian funds, in many cases, are being used in conjunction with grants from other agencies and it is an important function of the Commission staff to provide the States and local development districts with the technical assistance necessary to help them meet qualifications for basic agency, as well as Appalachian, funds. Only through such multi-level planning and cooperation can the Appalachian or any program be responsive to the people it serves.

APPALACHIAN REGIONAL DEVELOPMENT PROGRAMS

SUMMARY OF REQUIREMENTS

(thousands of dollars)

Program by Section of the Act	Fiscal Year 1974		Fiscal Year 1975		Increase/Decrease	
	Oblig.	Approp.	Oblig.	Approp.	Oblig.	Approp.
201 - Highways	186,036	155,000	160,000	160,000	-26,036	+ 5,000
Area Development Programs:						
202 - Health Demonstration	50,872	43,000	---	---		
205 - Mine Area Restoration	14,875	4,000	---	---		
211 - Vocational Education	25,011	25,000	---	---		
214 - Supplemental Grants	38,026	34,000	---	---		
Subtotal	128,784	106,000	125,000	125,000	- 3,784	+19,000
302 - Research, Demonstration and LDD	10,510	7,500	8,500	8,500	- 2,010	+ 1,000
207 - Housing Fund	3,692	1,500	2,127	---	- 1,565	- 1,500
Other Programs	416	---	---	---	- 416	---
Totals	329,439	270,000	295,627	293,500	-33,812	+23,500
Less Use of Unobligated Balances	-61,366	---	- 2,127	---	+59,239	---
Balances Carries forward to 1975 (Section 207)	1,927	---	---	---	- 1,927	---
Appropriation	270,000	270,000	293,500	293,500	+23,500	+23,500

SECTION 201: APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM

(thousands of dollars)

	<u>1973 Actual</u>	<u>1974 Enacted</u>	<u>1975 Estimate</u>	<u>Increase/ Decrease</u>
Appropriations	\$205,000	\$155,000	\$160,000	\$ + 5,000
Obligations	182,607	186,036	160,000	-26,036

1975 Request

The budget for FY 1975 includes a request for an appropriation of \$160 million for the Appalachian Development Highway program. This appropriation request, when added to the \$1,355 million previously appropriated, will provide a cumulative amount of \$1,515 million. The request provides an appropriation increase of \$5 million over the \$155 million appropriated for FY 1974.

Status of Authorizations and Appropriations

The Appalachian Highway program has been funded since the 1971 Amendments to the Appalachian Regional Development Act by annual amounts of contract authority which are currently authorized through FY 1978. Through FY 1974 the Congress has provided annual appropriations equal to the cumulative amount of contract authority specified for that period. For FY 1975 the request of \$160 million will provide for the highest priority projects within the various States.

The following table shows the relationship on a current and cumulative basis of authorizations and appropriation requests through FY 1975:

(millions of dollars)

	<u>1973 Actual</u>	<u>1974 Enacted</u>	<u>1975 Estimate</u>
Authorizations:			
Cumulative	\$1,175.0	\$1,355.0	\$1,540.0
Current Year	180.0	180.0	185.0
Appropriations:			
Cumulative	1,200.0	1,355.0	1,515.0
Current Year	205.0	155.0	160.0

The annual amounts of contract authority authorized by the 1971 Amendments to the Act were also made available for obligation during the fiscal year immediately preceding the year of contract authority. Under this authority the Commission must, by December 31, allocate among the States the contract authority for the succeeding year. These allocations can be released for obligation by the States when authorized through appropriation acts and approved apportionments.

Status of Program Allocations

Prior to 1971 authorizations for the Highway Program totaled \$1,165 million (through FY 1973), of which the Commission allocated \$1,080 million for development corridors, and \$80 million for access roads. In 1971, the authorization for the Appalachian Development Highway System was amended to provide additional authority of \$925 million (through FY 1978) for a grand total of \$2,090 million. The Commission initially allocated only a portion of the new authorization providing an additional \$30.9 million for access roads, and \$435 million for the development corridors. Subsequently, \$11.7 million was transferred from access roads to corridors.

The Commission has recently acted to allocate among the States the entire authorized amount through FY 1978. This allocation of funds which distributes the remainder of the available development highway funds provides advance notice to

States and their highway officials of the approximate amount of funds which will be available against which they can prepare plans. With this notice they are able to better plan the future construction needs and to initiate at an earlier time the design work and right-of-way acquisition necessary before construction can begin. The following table summarizes the allocations of authorizations by the major highway sub-programs. These funds are further allocated among the States by fiscal year but can be adjusted among States so that unused allocations during a specific fiscal year for either access roads or development highways may be advanced to another state which is ready to proceed with construction. This aids in assuring continued progress in getting various portions of the system underway.

	(millions of dollars)			
	Thru 1973	Thru 1974	Thru 1975	Thru 1976
Total Authorized	<u>1,175.0</u>	<u>1,355.0</u>	<u>1,540.0</u>	<u>2,090.0</u>
Allocations by Program:				
Development Highways	1,080.0	1,247.0	1,431.0	1,974.8
Access Roads	88.7	99.2	99.2	99.2
Administration and Special Planning	6.3	8.5	9.8	16.0
Unallocated	---	.3	---	---

These amounts include adjustments made in 1973 to provide for inclusion in the Development Highway System of highway corridors in three states (Alabama, Mississippi, and South Carolina) which were not previously included. Partial financing of these corridors was established through a transfer of \$11.7 million of access road allocations from the three states and a commitment from the Commission of up to \$5 million annually beginning with the 1975 allocations. Development Highway allocations by states on this basis are shown in Table I following and for Access Roads in Table .

Program for FY 1975

The Commission is in the process of preparing with each state and its highway department a definition of highway project priority classifications. During FY 1975 highway project work will be selected by the individual states from the high priority projects that are consistent with the state's ability to schedule project work of either a design, right-of-way, or construction nature. During 1974, it is expected, as shown in the table below, that the states can obligate more funds on the development highway portion of the program than the allocation would indicate. As has been the practice in the past, unused allocations in the access road program may be temporarily borrowed at the close of the fiscal year to permit the development highway program to advance as rapidly as possible. Borrowed allocations are returned during the next fiscal year. The following tables reflect cumulative obligational estimates as compared with allocations through 1974 and 1975, and immediately following that, annual obligational estimates for the same years.

	Thru 1974		Thru 1975	
	Allocation	Obligation Estimates	Allocation	Obligation Estimates
Cumulative Status:				
Development Highways	1,247.0	1,266.0	1,431.0	1,411.0
Access Roads	99.2	81.3	99.2	94.2
Administration & Special Planning	8.8	7.7	9.8	9.8
Total	<u>1,355.0</u>	<u>1,355.0</u>	<u>1,540.0</u>	<u>1,515.0</u>

Annual obligation amounts:

(thousands of dollars)

	<u>1973 Actual</u>	<u>1974 Enacted</u>	<u>1975 Estimate</u>
Development Highways	173,614	164,958	145,000
Access Roads	7,760	18,168	12,900
Administration & Special Planning	1,233	2,910	2,100
	<u>182,607</u>	<u>186,036</u>	<u>160,000</u>
Balance from prior year	-8,643	-31,036	---
Balance to future year	<u>31,036</u>	<u>---</u>	<u>---</u>
Appropriation	205,000	155,000	160,000

The above funds will finance a program which, by the close of FY 1975 is anticipated to result in a total of 1,530 development highway miles and 730 access road miles either contracted for construction or already completed. Adding the additional mileage for which Engineering Design or Right-of-Way acquisition will have been obligated there will be by the close of 1975 a total of an estimated 2,600 development highway miles and 750 access road miles with obligation commitments. The following table summarizes the amount of highway mileage authorization which will be utilized as of June 30, 1975 as compared with the maximum mileage authorized under the Appalachian Act. It should be noted that the financial authorizations through 1978 would only be sufficient to fund approximately 800 miles of the up to 1600 access miles authorized, and full construction on approximately 1,730 of the 2700 development corridor miles authorized.

	<u>Development Corridor</u>	<u>Access Road</u>	<u>Total</u>
1. Maximum mileage authorized	2,700	1,600	4,300
2. Highway mileage utilized:			
(a) Highway construction underway or completed, June 30, 1975	1,530	730	2,260
(b) Highway mileage under design or right-of-way acquisition, June 30, 1975	<u>1,070</u>	<u>20</u>	<u>1,090</u>
Total, mileage committed	2,600	750	3,350
Mileage authorization uncommitted by 1975	100	850	950

Program Requirements

The Appalachian Development Highway System as approved by the Commission currently consists of some 3,277 miles, but 380 miles of highway on the System has been rated "adequate" and does not require improvement; 2,692 of the remaining miles have been authorized for construction assistance and are within the Congressional limitation of not to exceed 2,700 miles.

In the 1969 Amendment to the Appalachian Regional Development Act, it was noted that the cost estimates for completion of the System were increasing and that the authorizations would only provide the funds to construct approximately one-half of the nearly 2,600 miles requiring construction improvement. The 1971 Amendments provided no additional mileage but increased authorizations by about \$890 million with the intent to complete the Development Highway System. The Commission recognized the effects of the cost increases and adopted in its early years a policy of 70 percent Federal financing for the engineering, right-of-way, and construction of two-lane highways while providing only 50 percent Federal funds for four-lane construction. This policy has helped stretch out the mileage that could be constructed with the funds authorized and appropriated.

More recently, the Federal Highway Act has been amended to provide for a 70 percent Federal contribution on non-Interstate highways, an action which caused the Commission to review its current 50 percent policy on four-lane construction. We expect the Commission to return to the initial statutory limit and to permit an up to 70

percent Federal share on all highway projects. This action and the effects of cost increases over the years has made it even more evident that the Appalachian Development Highway System cannot be completed in its entirety within the authorizations available through 1978. Accordingly the States and the Commission are developing priorities for highway construction activity within the next several years which will best meet regional and State priorities. Actual accomplishments of these priorities will depend on the ability of State highway departments to schedule engineering design and right-of-way acquisition and to obtain necessary clearances relating to environmental impact and to relocation activities. A further complicating factor is the present uncertainty concerning the energy shortage and its exact impact on State gasoline tax collections which for the most part finance the State share of the project cost.

Table II summarizes status of mileage by State as of December 31, 1973. Nearly 882 miles are now completed with an additional 407 miles now under construction. By June 30, 1975, it is estimated that 318 miles now under construction will be completed providing a total, by that time, of approximately 1,200 miles completed.

Currently another 319 miles are in right-of-way acquisition stages, with engineering design underway on an additional 464 miles of highway. Most of this mileage will not be ready for construction until after fiscal year 1974. A total of 2,072 miles, or about 74 percent of the 2,689 miles requiring construction has had engineering design initiated.

Status - December 31, 1973

	<u>Miles in Category</u>	<u>Cumulative</u>	<u>Miles est. June 1974</u>	<u>Miles est. June 1975</u>
Construction completed	881.9	881.9	1,050.0	1,200.0
Construction underway	407.1	1,289.0	1,400.0	1,530.0
ROW in process	319.2	1,608.2	1,800.0	2,000.0
Design begun	464.1	2,072.3	2,300.0	2,600.0
Location studies begun	717.6	2,789.9	2,800.0	2,845.0

Purpose of the Highway System

One of the primary factors which has contributed to Appalachia's relative economic stagnation is its isolation. This impact results from the difficulties of transport in a rugged region. Roads have been expensive to build and in the past, roads have been built to "follow the topography". In the past, major national transportation arteries were built to by-pass Appalachia rather than go through it despite its large population. So what evolved in Appalachia was a system of winding roads following stream valleys and troughs between the mountains. And, in general, these roads were, more often than not, narrow two-lane roads that could be squeezed into the limited available space. This system profoundly discouraged commerce and industrial development -- slow roads, a great mileage due to the winding pattern, unsafe roads built to poor design standards, short sight distances, and extremely high construction costs. With the exception of some communities located on major east-west routes, i.e., the National Pike and Lincoln Highway, most Appalachian communities were not able to compete for large employers because of poor access to national markets and the fact that commutation was so difficult that the size of available labor pools was severely limited by the transport system itself.

Construction of the Appalachian System, complementary to the Interstate routes, previously authorized by the Congress, is regarded by the Commission as the key to an accelerated rate of economic growth in the Region. The designated System serves to encourage the location of new industrial and commercial enterprises in the Region. Of equal significance is the fact that many of these highways facilitate commutation from rural, but heavily populated areas to jobs in the major communities and cities.

The System is composed of the following routes: (see map following)

--Corridors A, B, C, and K together provide a north-south route located generally midway between Interstate 75 and Interstate 77, and connecting Atlanta, Georgia, and Chattanooga, Tennessee, with Asheville, North Carolina, and Cincinnati and Columbus, Ohio.

TABLE I
 APPALACHIAN HIGHWAY PROGRAM OBLIGATIONAL NEEDS
 State-by-State Summary

(thousands of dollars)

	Alloc. of Total Authors.	Obligated & prefinanced thru 1973	Cumulative allocation thru 1974	Cumulative allocation thru FY 75	Estimated State Obligational Capability through 74
DEVELOPMENT HIGHWAYS:					
Alabama	16,672	6,083	6,500	9,043	7,006
Georgia	43,855	22,275	24,579	27,948	25,772
Kentucky	325,148	212,461	231,997	258,521	277,708
Maryland	110,444	66,364	65,457	72,041	66,747
Mississippi	11,156	0	4,000	5,789	1,000
New York	214,325	136,370	145,777	167,104	181,497
North Carolina	96,225	58,726	65,949	73,610	66,742
Ohio	89,855	54,481	68,944	74,225	69,090
Pennsylvania	372,560	132,158	178,823	227,815	186,811
South Carolina	3,872	0	1,200	1,200	100
Tennessee	179,700	77,356	79,755	105,031	109,864
Virginia	88,057	65,514	59,159	66,462	68,254
West Virginia	422,931	320,927	314,860	342,211	330,122
Sub-total	1,974,800	1,152,715	1,247,000	1,431,000	1,390,713
Access Roads:	99,200	63,132	99,200	99,200	81,300
FHWA-Admin.-Misc.	16,000	4,790	8,500	9,800	8,500
Unallocated	--	--	300	--	--
TOTAL	2,090,000	1,220,637	1,355,000	1,540,000	1,480,513
Appropriations	--	1,175,000	1,355,000	1,515,000	1,355,000
Amount pre-financed	--	51,673	--	--	80,000
Unobligated Balances	--	6,036	--	--	--

TABLE II
 APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM
 MILEAGE SUMMARY

State	CUMULATIVE STATUS AS OF DECEMBER 31, 1973						
	Total Corridor	Eligible for construction	Location studies, design, RW construction completed/underway	Design, RW construction completed/or underway	RW construction completed or underway	Construction completed/underway	Construction completed
Alabama	156.6	73.6*	111.1	67.5	28.5	22.6	6.4
Georgia	88.0	85.7	85.7	29.2	29.2	26.6	14.2
Kentucky	585.9	422.0	422.0	405.4	326.2	242.1	145.7
Maryland	84.6	80.6	80.6	54.6	54.6	54.6	19.7
Mississippi	104.0	31.7*	104.0	63.9	0.0	0.0	0.0
New York	254.3	218.3	218.3	193.8	180.8	148.9	106.3
N. Carolina	206.2	196.8*	194.8	151.4	138.1	107.0	70.1
Ohio	294.0	201.4	201.4	177.1	160.4	99.3	85.4
Pennsylvania	504.7	452.1	452.1	285.5	152.6	132.4	86.8
S. Carolina	30.7	13.1*	0.0	0.0	0.0	0.0	0.0
Tennessee	340.9	326.1*	330.4	208.7	156.5	119.6	114.0
Virginia	200.9	176.0	176.0	150.5	131.7	121.1	98.4
West Virginia	426.4	414.2	413.5	284.7	249.6	214.8	134.2
TOTALS	3,277.2	2,691.6	2,789.9	2,072.3	1,608.2	1,289.0	881.9
Estimated status as of:							
June 30, 1974			2,800.0	2,300.0	1,800.0	1,400.0	1,050.0
June 30, 1975			2,845.0	2,600.0	2,000.0	1,530.0	1,200.0

1/ Of the total completed mileage, 876.3 miles have been opened to traffic.

*Only portions of Corridors V and W in these States are eligible for construction due to 2,700 mile construction limitation in the Act.

- Corridors D, E, and H provide east-west connections from Cincinnati through Central West Virginia to the Baltimore-Washington metropolis.
- Corridors J, F, G, and S provide routes extending north from Chattanooga, Tennessee, to Interstate 75 south of Lexington, Kentucky, and extending from Interstate 75 north from Knoxville to Charleston, West Virginia.
- Corridors Q, R, and I provide an east-west connection from Interstate 81, southwest to Roanoke, Virginia, to Interstate 64 east of Lexington, Kentucky.
- Corridor L provides a north-south connection through central West Virginia, connecting Beckley, West Virginia, and Interstate 79 near Sutton, West Virginia.
- Corridor M provides an east-west route across Pennsylvania, connecting Interstate 76 near Pittsburgh and Interstate 81 near Harrisburg, Pennsylvania. This corridor parallels and upgrades U.S. Route 22.
- Corridors N, O, P, and U provide a north-south route from Corridor E in Maryland to Interstate 80, and via Interstate 80 to New York City on the east; also connect Williamsport, Pennsylvania, with Elmira, New York.
- Corridor T provides an east-west route midway between Interstate 80 in central Pennsylvania and Interstate 90 across New York State, beginning at Erie, Pennsylvania, and crossing the Southern Tier counties of New York to Interstate 81 at Binghamton, New York. This corridor parallels and upgrades State Route 17 in New York.
- Corridor V provides an east-west route across northern Mississippi and Alabama connecting Interstate 55 west of Oxford, Mississippi with Interstate 24 near Chattanooga, Tennessee. (59 miles in Mississippi and 44 miles in Alabama are eligible for ARC aid.)
- Corridor W provides a north-south route primarily in Appalachian South Carolina connecting Interstate 85 near Greenville, South Carolina with Interstate 26 near Hendersonville, South Carolina. (13 miles in South Carolina eligible for ARC aid.)

The Interstate Highway System will be of great value to Appalachia. Its primary effect, however, will be to provide high speed through routes between large population centers outside the Region. When the Interstate Highway network was developed, the major routes through and in the Region--I-70, I-40, I-81, and I-75--tended to follow the well-established corridors and did not open up isolated, but heavily populated areas which had been historically bypassed. Moreover, except for the Interstate System, allocation of Federal-aid highway funds was not based on cost of construction, a factor which greatly discriminated against the Region where the cost of building a highway through the mountains was high and where useable and desirable land for right-of-way is at a premium.

While there is widespread evidence, in Appalachia and elsewhere, that building a highway alone will not by any means guarantee automatic economic and social growth to the towns and cities which lie in its path, good access to national markets is an essential pre-requisite to growth. The highway and other transportation improvements must be accomplished, however, by concerted efforts to upgrade health, education, community services, and the quality of an area's environment.

For these reasons, a network of Appalachian Development Highways was recommended by the President's Appalachian Regional Commission in 1964. The system was to serve as a framework along which other investments in education, health, housing, and community development would be placed to provide maximum access for the people in surrounding areas. In some cases, existing alignments would be used, in others, new highways would have to be constructed. But, in any event, the system was to be capable of carrying traffic at an average travel speed of 50 m.p.h.

The States and the Commission realized in the early years of the Appalachian Program, that authorization would not be sufficient to complete the entire system. And, as additional engineering, inflated costs, new safety standards, and relocation benefits were added in, the discrepancy between such needed improvements and funds available has widened. A policy was established to improve the poorest sections of highway first. Each State thus established road building priorities. In some cases long stretches of road will be built, while in others short segments of only several miles in length are first to be built. By establishing such a priority system, the best possible physical continuity is achieved during the over all construction program. While the accomplishments of the program if plotted on a map might appear to be disparate and disconnected sections, in actuality each corridor can be represented by segments of highway in varying conditions, but, in most cases, providing a continuous system. For the nearly 900 miles completed and some 380 miles not requiring construction, this would appear on the map as modern highways. The remaining corridor mileage would vary as to its condition. Generally the least modern roads and those in the worst condition would have been improved first. The General Accounting Office has recommended that priorities be established by corridor rather than by adequacy. After careful consideration, the Commission has rejected this recommendation as inconsistent with conduct of the over all regional development program.

The Commission recently completed a review of the Appalachian Development Highway System with respect to certain key policy issues. These issues were:

1. A review of the existing priority system, how general priority rankings were assigned and an assessment of State and Regional needs.
2. Adoption, if appropriate, of a revised priority system based on new criteria.
3. Review and adoption of general rules for allocation of funds.
4. Review and adoption, if appropriate, of a revised policy for the Federal share of total project costs.

When the Commission was created Congress provided it with the authority to fund all highway activities at a 70/30 Federal-State ratio even though the basic Federal-aid highway program (excluding interstate) was being funded on a 50/50 basis. Since the Commission was concerned at the outset with rising cost it elected to restrict itself to allow 70/30 funding for all preliminary engineering, acquisition of right-of-way, and construction of two lane roads. The construction of four-lane roads was to be on a 50/50 basis in order to build more miles within authorizations then available. However, recent Federal-Aid Highway Acts provided for a transition from 50/50 to 70/30 on the regular Federal-aid highway systems on July 1, 1973 and an anticipated "crunch" in state matching funds for a number of Appalachian states raised serious questions as to whether existing ARC policy might adversely effect construction of the Appalachian Development Highway System. The responses to this concern from the States strongly favor return to 70/30 in all phases of the highway program and the Commission is likely to take this action prior to FY 1975.

In 1972 the states, working with the Federal Highway Administration, prepared revised cost estimates for the Appalachian Development Highway System, generally following the procedures for preparing interstate cost estimates. These revised cost estimates were utilized, along with an evaluation of prior allocations, in helping to arrive at a set of general rules for allocating among the states the remaining unallocated funds authorized by the Congress through FY 1976.

The development of a new priority system for the Appalachian Development Highway System was a major program effort in 1973. In addition to the 1972 Cost Estimates, each state furnished the Commission with a general view of its priorities on a year by year basis. The Commission developed many different sets of socio economic and highway data, studied various interrelationships and in November, 1973 adopted the general rationale for assigning priorities to highway activities on segments of the Development Highway System. The Commission staff has been working with representatives of the states and their highway departments to reach agreement on a set of priorities that will meet both regional objectives and the individual highway objectives and needs of the States. Under this system priorities are being assigned

to each highway activity every segment of the system. Thus, a top priority may be given to engineering or right-of-way acquisition to move the system forward, even though it would be known that time or funds would not permit construction of that segment by 1978, the last year of authorization. Special emphasis has been given to the various state line crossings in the priority system as these are considered by many to be one meaningful measure of the regional nature of the program.

Socio-Economic Effects

In discussing the specific impact of the Appalachian Development Highway program, two additional facts must be remembered: first, since the Appalachian and Interstate Highway System were designed to complement each other, it is difficult to sort out the contribution of either partner alone; and second, neither highway system has been completed. However, some early effects of the combined highway programs are already visible. In addition, informed estimates cannot be made of the impact these new highways will have on the future of the Region when the network is completed.

The major economic effects of the highway system are those dealing with changes in employment and industrial growth. Between 1965 and mid-1970 total employment in the Region increased by over 545,000. Perhaps even more significant, employment in manufacturing, contract construction, wholesale trade, and most services increased at a greater rate in Appalachia than in the U.S. as a whole. One important reason for the growth of employment in manufacturing was the large number of new plants which have been located in Appalachia since 1965. A previous ARC study showed that more than three-fifths of all new industrial locations are within 20 minutes of the new highway, and almost one-half were within 10 minutes travel time. This same study identified 1,149 new plants since 1965, representing over 200,000 new jobs. In the coal region of southwestern Virginia, for example, a development complex is being developed on a site at Duffield adjoining the highway. Several new manufacturing plants have already located there. The construction boom stimulated by this and other Appalachian efforts in the local area has generated a housing shortage in an area previously subject to severe out-migration. Construction of new housing is now a major priority along the highway.

Many community leaders have told ARC staff that beginning in the late 1960's much more economic growth has occurred and many had major problems in finding more workers and in meeting the demand for housing. Almost all of the communities had responded positively to their new locational advantages by undertaking the following action:

1. They had created an industrial development agency with authority to acquire large tracts of land and were developing these tracts as industrial parks. These industrial sites, which were acquired in advance of specific and immediate needs, were in most cases located near highway interchanges. The more successful communities were developing two or three such parks, each containing several hundred acres.
2. They were keeping ahead of their public service needs. Major expansions of water systems had either been recently completed or were in the process of being constructed, with full utilization of financial assistance from the Appalachian Regional Commission and other agencies.
3. Many of the cities were participating in multi-community planning and development programs.

Another major purpose of the Appalachian Development Highway System is to facilitate commuting and to provide the basis for developing new economies of scale for the delivery of social and governmental services. If rural people are to have the same quality of health and education opportunities as those living in urbanized areas, for example, these services must be provided over areas large enough in population and tax base to be able to support them. This can be accomplished only if people living in the areas to be served can reach the services within a reasonable period of time. An efficient transportation network is an essential underpinning for new plans for improving social and other services in Appalachia.

But these new opportunities could not be created unless local jurisdictions were willing to pool their resources and build area schools, area hospitals, area sanita-

tion systems, and area water systems. Such an area approach must also deal realistically with the urban and rural changes wrought by the automobile.

The multi-county local development districts are an important ingredient in helping to plan locally these developments. In each of these districts a center, or centers, has been identified as the hub from which many specialized services can be provided in the future to the surrounding rural areas. In all but a few cases, these centers are strategically located on the Appalachian or Interstate Highway Systems. Like the spokes in a wheel, these highways radiate out through the districts, linking the rural hinterland areas to the center, and linking the centers with the rest of Appalachia and the U.S. On this framework of highways, a network of social services is being built step by step.

At present the Commission is reviewing its entire transportation program to see what changes should be made if the program were to be continued. This will definitely emphasize the highway system, but careful attention is also being given the Appalachian needs for rail, air, water, pipeline, and rubber-tired mass transportation. Both passenger and cargo needs are being studied along with rates and regulation of the various modes. Interest in rural mass transportation has picked up rapidly in all of the Appalachian states in the last two years and a number of projects and services are being funded out of 302 funds.

Access Road Program

While the Development Highway Program is a system planned in advance, the local access road program, like other Commission grant-in-aid programs, consists of separately approved projects. Access roads are projects that must have an economic relevance which can be demonstrated much as a vocational school, water or sewer line, hospital, or airport project. An access road is normally a short road or bridge, often less than one or two miles in length, which provides essential access to an industrial site or park, a regionally important recreation area, an educational area, or to a commercially important timber production area. They are normally two-lane facilities and Federal assistance may go up to 70 percent of total cost.

After passage of the Appalachian Act of 1965, the Commission reserved \$35 million for this type road with an additional \$35 million reserved after passage of the 1967 Amendments to the Appalachian Program. Following the enactment of the 1969 Amendments, the Commission allocated an additional \$10 million thus providing a total of \$80 million for access roads. The Senate Public Works Committee Report on the 1971 Amendments indicated additional need of about \$50 million. In order, however, to retain funds required for the Development Highway System the Commission allocated an additional \$30.9 million for access roads. This was subsequently reduced by \$11.7 million by transfer to the Development Highway System of a portion of the additional allocations for Alabama, Mississippi, and South Carolina. This will provide a cumulative total of \$99.2 million which was fully allocated by FY 1973. The authorization provides a limitation of construction of up to 1,600 miles of roadway. It is estimated that approximately 800 miles of access roads or about one-half of the limitation on mileage in the Act will be constructed within the \$99.2 million allocated.

Present indications are that approximately \$81 million will be obligated through 1974, which would provide a balance of nearly \$18 million for future years. It is estimated that \$12.9 million will be required for obligation in FY 1975, leaving a balance of unallocated obligations at the end of FY 1975 of \$5 million. Table III indicates by State the status of the access road program. Through December 31, 1973, 249 projects requiring \$81.4 million of Federal assistance had been approved, of which \$68.9 million was obligated for construction. Some 413 miles of access road projects were completed, and an additional 83 miles were underway. Thus, of 672 miles of approved projects, 496 miles, or 74 percent were either underway or completed.

TABLE III
 APPALACHIAN ACCESS ROAD PROGRAM
 FINANCING AND ACCOMPLISHMENTS
 (thousands of dollars)

<u>State</u>	<u>Total Allocation</u>	<u>Cumulative Obligations thru 6/30/73</u>	<u>Approved Projects 12/31/73</u>	<u>Estimated Obligations thru FY 74</u>	<u>Estimated Obligations thru FY 75</u>
Alabama	\$ 19,030	\$ 15,448	\$ 18,737	\$ 16,900	\$ 19,030
Georgia	4,134	2,271	3,097	3,000	4,134
Kentucky	5,129	2,124	2,922	3,700	5,129
Maryland	2,326	1,059	1,960	2,200	2,326
Mississippi	9,558	7,042	8,866	8,800	9,558
New York	4,242	557	2,692	2,400	4,242
North Carolina	4,723	1,618	3,375	3,000	4,723
Ohio	5,022	2,281	3,856	3,700	5,022
Pennsylvania	14,130	7,916	11,785	11,200	14,130
South Carolina	12,731	9,360	9,431	10,500	12,731
Tennessee	7,284	5,573	6,480	6,400	7,284
Virginia	3,667	2,807	2,889	3,300	3,667
West Virginia	<u>7,224</u>	<u>5,076</u>	<u>5,299</u>	<u>6,200</u>	<u>7,224</u>
Sub-Total	99,200	63,132	81,389	81,300	99,200
Less slippage					<u>-5,000</u>
TOTAL					94,200

STATUS OF MILEAGE

	<u>Through 12/31/73</u>	<u>6/30/74 Estimates</u>	<u>6/30/75 Estimates</u>
Mileage completed	413	470	560
Construction underway or completed	496	640	730
Miles approved	672	750	780

Statutory Limitation on Miles -- 1,600 miles thru 1978

Summary of Allocations and Obligations:

	<u>Thru 1973 Actual</u>	<u>Thru 1974 Enacted</u>	<u>Thru 1975 Estimated</u>
Allocations	\$99,200	\$99,200	\$99,200
Cumulative obligations		81,300	94,200
Annual obligation	7,760	18,168	12,900

Administrative and Other Costs

Administrative and other planning costs to be incurred through completion of the program are estimated to be \$16 million of which \$9.8 million is estimated to be required through 1975. Administration of the program is primarily through the Federal Highway Administration which handles the details of the construction program in much the same manner as the Federal-aid highway program. For this purpose, the program finances a staff of 36 persons primarily in field offices of the Federal Highway Administration. These funds are also utilized to fund technical advice to the Commission through an independent consulting firm. During FY 1975, administrative costs are estimated at about \$948 thousand of which \$868 thousand provides for detailed administration of the program in the Federal Highway Administration. Total administrative costs allocated through FY 1975 are estimated at \$6.0 million.

An additional amount of \$3.8 million will have been allocated through FY 1975 primarily for special State planning projects related to highway and corridor utilization. The Commission has since 1972 allocated among the States an annual amount of up to \$1 million for use in extending highway planning to accommodate and stimulate concentrated development projects at varying locations along the development corridors and other major highways to realize the highway's greatest potential for development and protect the highway investment.

To date planning projects have been approved in 11 States with objectives thus far related to each State's differing needs. In Georgia, it will assist in comparing the potential effect of various alignments of Corridor A on the natural resources and economic development potential of the Appalachian portion of the State. Maryland plans to maximize the economic and recreational development opportunities of the proposed National Freeway (Corridor E), in addition to Corridors II and O, through an evaluation of alternative alignments. Alabama has initiated a similar study along some 171 miles of the recently designated Corridor V which extends from the Tennessee line near Chattanooga, Tennessee, to Red Bay, Alabama, at the Mississippi line. Mississippi is considering a continuation of this same type study along Corridor V from the Mississippi line near Red Bay, Alabama, through Tupelo, Mississippi, to I-55, a distance of approximately 104 miles. North Carolina is investigating the economic benefits which would result in upgrading US 19E from US 23 near Mars Hill to the Tennessee line, along with corridor development studies in four growth centers.

Pennsylvania, Virginia and Mississippi are carrying out projects through their regional planning agencies with each project primarily oriented to the identification and development of plans for highway-related sites. South Carolina is seeking to insure the orderly economic development of the Cherokee Scenic Highway with particular emphasis on the scenic and recreational opportunities.

Other projects are underway or have been approved for Kentucky, New York and West Virginia.

Sec. 201: Appalachian Development Highway System
FHWA unless otherwise indicated

OBJECT CLASSIFICATION (in thousands of dollars)

	19 73 actual	19 74 estimate	19 75 estimate
Personnel compensation:			
11.1 Permanent positions.....	511	550	568
11.5 Other personnel compensation.....	---	1	1
Total personnel compensation.....	511	551	569
Personnel benefits:			
12.1 Civilian.....	43	49	50
21.0 Travel and transportation of persons.....	44	60	60
22.0 Transportation of things.....	---	1	1
23.0 Rent, communications, and utilities.....	23	25	25
24.0 Printing and reproduction.....			
25.0 Other services.....	150	160	160
25.2 Services of other agencies (ARC).....	72	80	80
26.0 Supplies and materials.....	---	1	1
31.0 Equipment.....	1	2	2
Subtotal.....	844	929	948
41.0 Grants, subsidies, and contributions.....	181,763	185,107	159,052
99.0 Total obligations.....	182,607	186,036	160,000
<u>PERSONNEL SUMMARY</u>			
Federal Highway Administration			
Total number of permanent positions...	36	36	36
Full time equivalent of other positions			
Average paid employment.....	33	36	36
Average GS grade.....	9.3	9.3	9.3
Average GS salary.....	\$14,908	\$15,440	\$15,624

AREA DEVELOPMENT PROGRAMS

(thousands of dollars)

	1973 <u>Actual</u>	1974 <u>Enacted</u>	1975 <u>Estimate</u>	Increase/ <u>Decrease</u>
Appropriation	123,500 ^{1/}	106,000	125,000	+19,000
Obligations	117,532	128,784	125,000	- 3,784

^{1/} Includes \$11 million supplemental Tropical Storm Agnes for mine area restoration program.

Appropriation Request

The appropriation request for the Area Development program represents a proposed new program activity which combines programs previously shown under four activities. These four activities and the amounts appropriated and obligated for each during 1973 and 1974 follows. Program activity for 1973 and 1974 for each of these programs is discussed following the material on the Area Development program for 1975.

	FY 1973		FY 1974	
	<u>Approp.</u>	<u>Obliga.</u>	<u>Approp.</u>	<u>Obliga.</u>
Section 202 - Health Demonstration	48,000	41,511	43,000	50,872
Section 205 - Mine Area Restoration	13,000	10,949	4,000	14,875
Section 211 - Vocational Education	25,500	26,009	25,000	25,011
Section 214 - Supplemental Grants	<u>37,000</u>	<u>39,063</u>	<u>34,000</u>	<u>38,026</u>
Totals	123,500	117,532	106,000	128,784

Consolidation of these four programs under one program head and the accompanying allocation to the States as single block allocations will provide the States with the opportunity to plan their 1975 investment program without the prior categorical restrictions. This allocation system will be much like a block grant in that the States can then establish their priorities and plan the amount that can best be invested in 1975 as between vocational education facilities, health facilities, water, sewer or other community facilities, mine area projects, etc. It retains the Federal partnership and interest by continuing to require that individual projects in the plan meet the Federal standards for such projects as have been established by the other Federal agencies and the continuing requirement that all project actions receive Commission approval including the assent of the Federal Cochairman.

The budget requests an increase of \$19 million over the \$106 million appropriated for 1974 which will assist the Region in extending the bases for further improvement of its economic growth and prosperity. While the Region has improved since the initial enactment of the Appalachian legislation it still continues to lag behind the rest of the nation in its economic growth and prosperity as is shown in the data provided by the 1970 Census.

In 1970 Appalachia had 9 percent of the nation's population after having experienced a 2.7 percent population increase from 1960 to 1970. However, at the same time the nation's population increased 14.5 percent, the Region was experiencing a net out-migration of 1.1 million people. During this same period, overall conditions in the Region improved with per capita income rising to \$2,520, or approximately 80.3 percent of the U.S. level. Yet only three of the Region's 397 counties had per capita income levels above the national average, and the incidents of low-income population in the Region was 32 percent above the national proportion of low-income families. Also, while improvements were noted in other social economic indices, the Region lagged in education and health attainments. For example, the Region still has 32 percent college graduates and 18 percent more high school dropouts. The infant mortality rate was 5 percent higher than the U.S. rate.

Background

Historically, there have been a number of ways in which the Commission's non-highway funds have been authorized and appropriated. Initially, the 1965 Act provided a separate authorization limit for each program and funds for that program were appropriated directly to the agency responsible for its administration. In the case of Section 211 this was the Secretary of HEW; in the case of Sections 214 and 302 it was the Secretary of Commerce. Some of the problems of this approach became evident in the 1967 appropriations when the budget for Appalachian programs was scattered among nearly a dozen different appropriations. Then in 1967 Congress amended the Act to provide that appropriations for all programs would be made to the President within specific limitations for each program as defined in various sections of the Act. Accordingly, appropriations for 1968 and 1969 were made to the President in lump sum, although the Appropriations Committees generally indicated in their reports the amounts intended for each section of the Act.

In 1971, Congress made another major change by removing previous section-by-section program limitations and enacting a single authorization limit for non-highway programs. Appropriations continued to be made in total with Committee intentions specifically stated for each individual program. The stated aim of the Public Works Committees in enacting lump-sum authorizations was to give the Commission maximum flexibility in determining priorities for the investment of these funds.

Paralleling the changes in authorizations and appropriations styles have been changes which the Commission has made relating to the allocation of funds. Beginning with a system which provided formula allocations for virtually all programs, the Commission has dropped those allocations in some areas (Sections 205 and 302); it has changed the formula in other cases; it has broadened inclusion of new states and areas; and it has in some cases made allocations without formula. In short, it has been a constant search for better ways of making the funds available to the states and to make our budget more responsive to the changing nature of Federal grant programs.

The advent of new federalism and revenue-sharing philosophy occasions a new look at the Commission's approach to its allocation process, to the decision-sharing of the State/Federal partnership concept, and to its regional growth strategy.

The Commission is seeking funds in a manner that will permit block allocations to the states and the execution of state and area development policies. The area development policies would apply to three generally homogeneous subregions comprising Appalachian and a fourth area, the Highlands, that overlays the subregions and that is defined to include major recreational attractions to the Region. The subregions are labeled here as Northern Appalachia, Central Appalachia, and Southern Appalachia. A statement of the proposed approach follows, along with a description of the subregions and an analysis of past investment trends and development strategies.

Statement of Approach

The Appalachian States have endorsed the concept of Area Development as an adjunct to state and local development district planning and programming. This endorsement was predicated on an experimental approach to funds allocations and project funding procedures which is elaborated below. The endorsed approach has four interrelated components:

1. block allocations rather than categorical allocations
2. state allocations
3. subregional and area allocations
4. subregional development strategies

These components have their antecedents in the past performance of the Commission, but represent a significant change which is directed towards closer alignment with changes in domestic programs. While the approach is experimental to the Commission,

at the same time it offers a testing ground for more state and local involvement in program management and in setting priorities outside of relatively rigid categorical allocations.

Block Allocations--In the context of the budget request, the Commission proposes that funds appropriated for Area Development programs be made available to the states through block allocations. Under this procedure, the allocation of funds by investment activity (health, vocational education, mine area restoration and basic or supplemental facility grants) would be a direct expression of state and subregional development strategies, rather than an expression of categorical allocations. Individual projects would continue to be approved under the requirements of the Act and would have to meet the policies of the Commission as expressed in the ARC Code.

State Allocations--From the budget request of \$125 million, \$82.4 million would be block-allocated to the states. In determining the amount going to each state, the Commission would use a formula approach that would reflect, to a large extent, relative levels of program and state allocations if no changes were made in the previous appropriation level and past allocation procedures. The obligation of these funds would be based on state and district development plans with no predetermined controls on funds distribution to subregions. This "base" allocation would represent 80 percent of last year's funds for each state. Each state would also receive an allocation for subregional development projects.

Subregional and Area Allocations--A total amount of \$40.6 million would be set aside for area development programs and projects consistent with subregional development strategies. Of this amount, \$2 million would be used to fund demonstration projects in the overlapping Highlands Demonstration Area. The remaining \$38.6 million would be divided by state portions of each of the three subregions.

In order to apportion the \$38.6 million in subregional funds, a mathematical model adapted from the allocation formula used in the Section 214 program was prepared. The allocation factors produced by this formula would have resulted in percentage shares of 40.33 percent for Northern Appalachia; 16.08 percent for Central Appalachia and 43.59 percent for Southern Appalachia. This model was modified in one respect to provide an additional factor of extra compensation for Central Appalachia. That factor was taken as an expression of the per capita income lag between Central Appalachia and the regional average. The per capita income for the Central Appalachian subregion is \$1,880 as compared with \$2,701 for the rest of the Region, or approximately a 44 percent difference. The adjusted factors provided 36.93 percent, or \$14,255,000 to Northern Appalachia; 23.16 percent, or \$8,940,000 to Central Appalachia; and 39.91 percent, or \$15,405,000 to Southern Appalachia. The state-by-state percentages are shown on Table I and the estimated 1975 state allocations (subject to minor adjustments) on Table II.

Subregional Development Strategy--Funds made available from subregional allocations would be expended for projects specifically geared to implement subregional development strategies. The strategies would focus on development opportunities that are manifest in a subregional basis. As indicated in the discussions that follow, sets of strategies are emerging along with identification of prime development opportunities, which if capitalized on could help overcome Appalachia's lagging areas. The subregional allocation would permit a pooling of funds to meet just such opportunities.

Definition of Subregions

Although all of Appalachia shares common problems and potentials, there are important differences among different parts of the Region. In recognition of the differences and in order to prevent over generalization about regional conditions, it has been convenient to present economic and other reports according to four subregions--Northern Appalachia, Central Appalachia, the Highlands, and Southern Appalachia. However, it became clear in efforts to obtain workable boundaries for the original four subregions that the Highlands subregion could not be differentiated on the basis of differing geographic, economic, and demographic criteria. In a sense, the Highlands subregion was drawn largely on functional criteria--primarily the interest in broad, but unique, environmental and rather specific recreation and tourism area characteristics. As a result, the Highlands area actually was an overlay

TABLE I
State Allocation Percentage Shares By Subregion

	<u>Northern</u>	<u>Central</u>	<u>Southern</u>
1. Section 214 Formula	40.33%	16.08%	43.59%
2. Adjusted Formula	<u>36.93</u>	<u>23.16</u>	<u>39.91</u>
3. State Percentage Share of Subregion:			
Alabama			21.88
Georgia			15.53
Kentucky		46.70	
Maryland	10.64		
Mississippi			14.04
New York	16.29		
North Carolina			15.80
Ohio	17.93		
Pennsylvania	39.45		
South Carolina			12.94
Tennessee		19.16	12.49
Virginia		18.41	7.32
West Virginia	15.69	15.73	
TOTALS	100.0%	100.0%	100.0%

TABLE II
 Estimated 1975 Allocations By State
 (millions of dollars)

State	Base Allocation	Subregional Allocations			Total Allocation
		Northern	Central	Southern	
Alabama	\$ 7,622.0	\$	\$	\$ 3,370.6	\$ 10,992.6
Georgia	5,710.3			2,392.4	8,102.7
Kentucky	6,361.3		4,175.0		10,536.3
Maryland	3,617.4	1,516.7			5,134.1
Mississippi	4,894.6			2,162.9	7,057.5
New York	5,743.3	2,322.2			8,065.5
North Carolina	6,641.4			2,434.0	9,075.4
Ohio	6,097.6	2,555.9			8,653.5
Pennsylvania	10,514.2	5,623.6			16,137.8
South Carolina	6,155.3			1,993.4	8,148.7
Tennessee	7,564.3		1,712.9	1,924.1	11,201.3
Virginia	4,095.3		1,645.9	1,127.6	6,868.8
West Virginia	<u>7,383.0</u>	<u>2,236.6</u>	<u>1,406.2</u>		<u>11,025.8</u>
Subtotal	\$ 82,400.0	\$ 14,255.0	\$ 8,940.0	\$ 15,405.0	\$ 121,000.0
Highlands Demonstration					2,000.0
Administrative Costs					<u>2,000.0</u>
Total					\$ 125,000.0

of area with these characteristics, but covering parts of ground with the same characteristics as parts of the other three subregions.

The "overlay idea", however, has provided an effective solution. As a result, what is now being proposed is to recognize the three subregions--Northern, Central, and Southern--and to treat the fourth area as the Highlands Demonstration Area. In this area, the Commission would simply propose set-aside funds for concentration on demonstration projects to capitalize on the opportunities to develop an environmental, recreation, and tourism program. All parts of the Region would lie within the three subregions for each of which the affected states would formulate broad development strategies and projects geared to the particular subregional objectives, problems, and opportunities.

The result is that each of the three Appalachian subregions is distinct as a geographic unit and with distinct income and population characteristics. Only four of the 70 local development districts are in more than one subregion; 66 are entirely included in one or another subregion.

NORTHERN APPALACHIA is the largest subregion geographically and in population; with 9.73 million population (1970), it includes 53 percent of the Region's total and has 43 percent of its land area (83,581 of 194,871 square miles). It is the most urbanized (55 percent of the people urban in 1970) and has much the highest average population density (116 per square mile). Socioeconomic deficiencies are least and living standards the best in the Region, although there are numerous hill and mountain counties in the southern segment of the subregion in southern Ohio, westernmost Maryland, and most of West Virginia.

Population growth in the 1960's was negligible in the Northern subregion (0.3 percent increase) and out-migration for the decade amounted to 640,000. The most urbanized portions of the subregion in south central New York, Appalachian Pennsylvania, and northern West Virginia are highly industrialized, but with many older industries which came in the railroad era. In sharpest contrast are many of the hill and mountain counties which have not experienced significant industrialization (except for mining in some areas) or urbanization.

CENTRAL APPALACHIA is almost entirely a mass of dissected hills and low mountains with narrow valleys; it extends diagonally across almost the entire width of the middle portion of the Region. Primary production from forests and coal mines, along with subsistence agriculture, have been the mainstays of the Central subregion economy; Central Appalachia has a per capita income level only about 60 percent of the nation (1970 census). With 9.6 percent of regional population, it extends over nearly one-sixth of the territory; thus average population density is relatively low (55 per square mile). Central Appalachia is most distinctly defined by its high index level of socioeconomic deficiencies. It includes 85 counties, all of the Appalachian parts of 13 LDD's, and portions of four other LDD's which are split with other subregions.

Only 21 percent of the Central subregion's population of 1.74 million was classed as urban in 1970; none of the urban areas were large, and most of the urban population lived in small towns. The subregion experienced sizeable population declines in both the 1950's and the 1960's, with large out-migration of population due to the sharp decline in coal mining employment and the limited economic potential of other sectors of the subregional economy. Early population estimates of the 1970's suggest that this trend may be gradually changing and the subregion might gain population in the 1970's.

SOUTHERN APPALACHIA extends from the mountains of highland Virginia to the margins of the Coastal Plain in Alabama and Mississippi, with 6.73 million population (1970 on 79,384 square miles of land; 37 percent of the Region's people and 41 percent of its territory). Urbanization is less than in the North--46 percent of the population of the Southern subregion (1970) but as elsewhere in the South, the proportion is growing. Population density averages 85 per square mile, somewhat below the regional mean.

Socioeconomic indicators of deficiencies average somewhat above the regional value, but there is an extremely wide variation between the most developed metropolitan counties and the rural or mountain counties.

Population growth is the outstanding characteristic of the Southern subregion: a gain of 9.7 percent, or 593,000 persons which accounts for more than the total Region growth of 486,000 in the 1960's. Much of the subregion is industrialized with emphasis on textiles, clothing, chemicals, and wood-products industries. Southern Appalachia, along with many parts of the South, has had a developing economy in the last two decades, with urbanization increasing and incomes advancing relative to national averages.

Subregional Development Strategies

Focusing on total economic development needs and the basic policy stated in the Appalachian Regional Development Act, that efforts be concentrated in areas with a significant potential for future growth and where the expected return in public dollars invested will be the greatest, the Commission has developed a two-fold policy. This development policy emphasizes the concentration of investment in areas with growth potential or in areas having substantial impact on such areas, while making health and education services and facilities available to people within the Region regardless of their location, so that they can be equipped to participate in society and the economy, and thereby contribute to the economic growth of the area.

While the Commission and the Appalachian States have pursued these overall strategies for the development of the Region, the varying conditions within subregions have resulted in modifications and adaptations responsive to economic and social needs. Both the development objectives and strategies and the investment of funds pursuant to them, illustrate this responsiveness to varying conditions.

A review of the Appalachian development objectives and strategies stated in the State Appalachian Development Plans and programs and an examination of actual investment made by the states in the three subregions, provide a basis for a further refinement and clear recognition of a subregional approach to budgeting and decision-making for development programs.

Four broad categories of expenditures have been analyzed covering the period from FY 1966 through FY 1973 with respect to the distribution of ARC funds by category of investment among the subregions and the historical distribution of ARC funds in the subregions over the same period. The four program categories are: Natural Resources, Health, Education, and Community Facilities.

Northern Appalachia

The parallel between the historical patterns of investments in the Northern and Southern subregions is striking, particularly with respect to community facilities and education expenditures. But the motivations for these investments are in strong contrast. Northern Appalachia's development strategy meets head-on the changing character of industrial growth from that of a much older industrial order to accommodating new industry in areas where available job skills and the supporting community facilities structure do not meet the needs of new industry or older firms attempting to diversify their product lines.

It is highly significant that over 95 percent of the total ARC funds invested in community facilities such as water, sewer, airports, transit and other supporting capital improvements have been allocated in the Southern and Northern subregions and that between the two the investments in such facilities is almost equal. The difference between the two in expenditures for public facilities is the higher emphasis in Southern Appalachia on new systems and expansion of existing systems into new areas as compared to a higher concentration on replacement or major renovations of existing systems in older communities caught up by the changing character of industrial development in Northern Appalachia.

In the natural resources category of investment, over 75 percent of the total investments in natural resources (largely under Section 205 mine restoration) have been made in the Northern subregion, particularly in Pennsylvania. At the inception of the ARC program, the initial basic concern in Pennsylvania was to get the major mine fires under control in the older built-up areas. The Commonwealth had been engaged with limited state and local resources in attempting to address this most basic environmental problem. Fortunately, in Pennsylvania the Legislature had early addressed the issues of public ownership of lands, the exercise of eminent domain,

and other problems inhibiting implementing a sound mine fire control program. The Appalachian program accelerated these efforts with the result that most major mine fires have been extinguished. In fact, the current state policy gives first priority on the reclamation of surface-stripped areas for industrial park development.

Ohio's Appalachian Region is entirely within the Northern subregion and exhibits many of the economic characteristics of the older industrial areas and their surrounding countryside. Community development, therefore, is of high priority. The specific priorities for investment has been given to water and sewer facilities, education, health, and airports. At the outset of the ARC program, Ohio set as a basic objective the construction of at least five major area vocational-technical training centers strategically placed so that the residents of all 28 counties would be within commuting distance. Today, Ohio's Appalachian training program is considered to be among the most successful undertaken in the Region.

Also of special significance is the attention being given in Ohio to the skills required to support improved health conditions in southeastern Ohio. Health manpower training and paramedical skills are important features of vocational programs accessible to Ohio's Health Demonstration Area and other sections of the subregion.

Of current concern is the developing multi-million dollar power generation complex on the Ohio River near Pomeroy in Meigs County. It is anticipated that this development program alone will generate over 5,000 permanent new jobs in southeast Ohio. The communities that relate to the living and social needs of this new work force must assure adequate water supply, sewage treatment, transportation and health facilities. Some of the health and community capital investments that have been made in Gallia and Meigs counties, as well as other areas, relate to this kind of new industrial growth. Again, there is an older community structure in need of adjustment to serve new industrial growth. Again, there is an older community structure in need of adjustment to serve new industrial growth.

The strategies in New York, West Virginia and western Maryland in utilizing ARC funds in the areas of those states within the Northern subregion are basically similar. The investments that have been made in the Northern subregion in community facilities, education (particularly vocational training), and health have been basically designed to accelerate direct employment expansion wherever possible through new industrial growth or industrial redevelopment.

In summary, although Northern Appalachia occupies a relatively satisfactory economic position compared to the other subregions, it has experienced a generally less satisfactory pattern of growth. A number of older, established small and medium sized communities and cities have deficiencies in public services and facilities because of the shifting economic base and the difficulty in making a transition. Development strategies have and will continue to emphasize post high school and adult occupational training to assist in adapting to new job opportunities. In addition, emphasis has been placed on environmental problems arising from past industrial and mining activity and on the need for community facilities and governmental organizational and financial reforms. Actual investments have been spread relatively evenly among the four major program categories of natural resources, health, education and community facilities, with emphasis on educational investments and community facilities.

Central Appalachia

Central Appalachia, because of its unique characteristics, has presented special problems in designing effective development strategies. Because of the widely dispersed population, concentrated zones of poverty, and sharply limited economic base, adaptations to the growth area strategy here were necessary with emphasis on regional provision of services. Meeting the needs of this largely rural population is beyond the capabilities of the existing service structures within the relatively few sizeable centers of population. The existing communities have extremely limited financial capability to provide community facilities. Limited industrial development and "growth potential" have dictated an emphasis on health and education facility investments to serve the Appalachian population and prepare them for industrial jobs as they became available.

Accordingly, the pattern of investments in Central Appalachia presents sharp contrast to the other subregions in terms of distribution of ARC aid among the four categories of investments. Primary emphasis in the Appalachian Development Plans of the four Central Appalachia States has been placed on human resources programs. Over 90 percent of program investments in the subregion have been concentrated in health and education areas.

All four States have invested in primary health care delivery centers. Tennessee has concentrated on construction and the modernization of hospitals with expanded out-patient services which can become a part of a network of primary care delivery centers as well as a system of public health centers. In Kentucky, the support has been provided for coordinated systems of emergency care, supportive services for non-institutionalized persons, and community health services. Health expenditures have also been made to overcome health manpower shortages as well as their mal-distribution. Comprehensive health demonstration areas within the subregion have contributed to the development of all the health programs.

Almost a third of the investments in the subregion have been made in education programs. In Tennessee, the objective has been to provide strengthened educational programs. Investments in vocational facilities with training geared to skilled manpower shortages, received priority. In order to improve skills and expand job opportunities for West Virginia's labor force, priority has been assigned to the development of a network of vocational education schools and improvement in the State's institutions of higher education. In both Kentucky and Virginia, the first stage educational priorities of providing vocational education opportunities within the reach of all residents, is nearing realization. Both States are currently reevaluating the past strategies and developing new second-stage approaches.

In Central Appalachia, the smallest investment in the Region has been made in community facilities. Along with continued improvement in the operation of educational and health facilities, this is the area which will receive particular emphasis as programs are reassessed. Significant investments in community facilities, which to date represent less than 4 percent of total ARC aid in the subregion, are necessary to realize the objective of supporting urban centers. In Kentucky, for example, a need has been indicated for concentration on access roads, rural transportation systems, low- and moderate-income housing, and water and sewer facilities. In Virginia, priority will be assigned to those public facility investments which will stimulate industrial development. Kentucky, Tennessee, Virginia and West Virginia anticipate increased emphasis on recreational development through the provisions of public facilities.

As has been seen, a major emphasis has been placed on the need to provide health services to a population beyond the reach of conventional health delivery systems and on upgrading educational facilities and programs. Coupled with this has been a recognition of the need for accelerated growth in urban centers to provide adequate services and employment opportunities.

Southern Appalachia

In responding to the potential for industrial development within Southern Appalachia, investment strategies have stressed vocational education facilities and programs and community facilities designed to support urbanization and industrialization of the area. Over half of ARC investments in this subregion have been for vocational education and community facilities.

Major programs of high school and post-high school vocational and technical training tailored to fit the needs of the new industries locating within the area have been buttressed by a relatively heavy investment in community facilities designed to respond to the pattern of industrial location in moderate-sized metropolitan areas and medium-sized cities.

In South Carolina, early emphasis was placed in a system of technical institutes directly responsive to the needs of diversified industrial development. In emphasizing the potential diversification of the economy, a dual post-secondary system--community colleges and vocational-technical institutes--now offer courses emphasizing the development of new skills related to job opportunities.

In the Tennessee portion of the subregion, priority has been given to education investments for the construction and modernization of vocational facilities where training is geared to current shortages in skilled manpower.

The main objective of Alabama's investment strategy has been industrial development emphasizing manufacturing industries. Vocational and technical training has been given the highest priority among the State's human resources programs.

In Georgia, the development strategy has given first priority to investments to accommodate the rapidly industrializing area of north Georgia. Support for vocational-education facilities providing job training for new skills related to the pattern of industrialization has been emphasized.

All the States in Southern Appalachia can be expected to support community facilities, including water and sewer and transportation facilities such as airports and access roads, to serve new industries, and to accommodate growth clustering in small and medium size communities. In South Carolina and North Carolina, water and sewer studies and plans have been developed for the Appalachian part of the State and implementation will continue on those parts of area-wide systems that will accommodate growth. Similarly, in Tennessee, water and sewer and transportation investments will be concentrated to increase potential for industrial development and improve access to service and trade centers. Investments in health facilities and programs will stress environmental and preventive health services with an emphasis on delivery systems and primary care.

Administration of Program

Under the proposed Area Development program the Commission will continue to approve individual projects under the terms of the applicable sections of the Act: health demonstrations, Section 201; mine area restoration, Section 205; vocational education facilities, Section 211 and supplements to other grant programs, Section 214. These individual projects, as in the past, are then administered and monitored by those Federal agencies which, under the Appalachian Act, have been given the responsibility for administration of the project details. The Commission reimburses these agencies for their cost in administering the program, which for 1975 is estimated at \$2 million as follows:

	(thousands of dollars)	
	1974 <u>Enacted</u>	1975 <u>Estimated</u>
Health Projects:	\$ 1,299	\$ 1,252
HEW	(804)	(902)
ARC	(495)	(350)
Mine Area Restoration (Bureau of Mines)	700	520
Vocational Education (Office of Education)	53	53
Supplemental Grants (Agriculture & others)	50	100
Contingency	<u>0</u>	<u>75</u>
	\$ 2,102	\$ 2,000

SECTION 202: HEALTH DEMONSTRATION PROJECTS

(thousands of dollars)

	<u>1973</u> <u>Actual</u>	<u>1974</u> <u>Enacted</u>
Appropriations	48,000	43,000
Obligations	41,511	50,872

Program for 1975

During 1975 this program will be conducted as part of the Area Development program previously described. Funding will be provided for the ongoing operating type health and child development projects which have been initiated in Appalachia in previous years and new operating and construction projects will be initiated. Under the proposed Area Development program States will utilize allocated funds for projects as authorized under this Section for the overall demonstration of the value of adequate health to the economic development of the region through continued provision of health and child development services and facilities to the people of the Region.

Program Objectives

Under Section 202 the Commission may make grants for planning, construction, equipment and operation of demonstration health and child development projects in selected areas throughout the Region. The program is designed to provide for a flexible non-categorical approach to improvements in health and child development through a process involving comprehensive community planning on a multi-county medical trade area basis and implementation of that planning through service programs and where applicable the construction of the necessary medical facilities. Particular attention has been given to the fostering of regional comprehensive health planning and the establishment of a variety of primary health care delivery systems. Since the 1969 Amendments the Commission has encouraged its child development programs with special emphasis on the young child and particularly those of pre-school age. Child development projects are also "child-serving" projects and include projects providing assistance for medical services, day care, infant and pre-school education, nutrition, parent education and child group programs.

Program for 1974

The health and child development programs have operated since 1972 on the basis of a single combined annual allocation of funds to each State. Under this system the State has the ability to program its funds among health and child development projects as will best accomplish its objectives during a particular time period. During 1974 we estimate that these State programs will result in a program as between operating, continuations and construction projects as follows:

	(thousands of dollars)	
	<u>1973 Actual</u>	<u>1974 Estimate</u>
Comprehensive Health Development		
Operating projects continuation	19,919	14,500
New operating starts	7,336	12,000
Construction grants	3,460	1,300
	<u>30,715</u>	<u>27,800</u>
Black lung program	1,539	680
Child Development		
Operating project continuations	10,528	22,800
New operating starts	5,430	1,100
	<u>15,379</u>	<u>23,900</u>
Administration and evaluation	894	1,500
Sub-Total	48,527	53,880
Less project savings and recapture of prior year obligations	-7,016	-3,008
Total Obligations	41,511	50,872

Comprehensive Demonstration Health Program

The Commission's role in health is to "demonstrate the value of adequate health facilities and services to the economic development of the region." It has done this, in cooperation with the States and agencies of the Federal government, through a program of grants and technical assistance, and by acting as an "honest broker", or middleman, in helping translate the theory of new health approaches into the practical results of local accomplishment. Although the health status of people in Appalachia has improved since the inception of this program, their status is still lower than the nation's as a whole, in some places dramatically lower.

The means Congress provided in the law to carry out the health program have been, by deliberate design, flexible. The Commission can fund construction or equipment grants up to 80 percent, and planning and operating grants up to 100 percent or cost for the first three years, and 75 percent for the following two years. Not all of these sometimes experimental projects have been successful, but all have contributed to the invaluable learning process that can only come from actual test, not in laboratory simulation, but as real operations run by local people, who work to assure their projects shall have the best possible chance of success.

In pursuit of its broad goals, the Commission continues to fund a wide variety of health projects: dental brush-in, nutrition, mosquito control, emergency room expansion, ambulance purchase, pediatric nurse training, are some of the "simple" ones. Others get more complicated: telephone linkage between rural health providers and a university teaching center; coordinated network of home health agencies; shared computer hospital information systems; shared use of core professional staff for a network of day care centers for the mentally retarded.

The Commission's health policies recognized early that with this flexibility must come concentration. One of the first Commission decisions was to confine this flexibility to Comprehensive Health Demonstration Areas (CHDA) - multi-county units in the Appalachian parts of selected States. By FY 1974, the program had evolved so that 12 of the 13 Appalachian States had these CHDA's - one State chose another way to invest its health dollars.

The Commission further decided in 1970, to fund only two types of projects outside the CHDA area: health planning agencies and primary care despite the pressures of other health needs in Appalachia. The decision was widely endorsed by such varied groups as the American Medical Association and the National Conference of Governors.

In practical terms, the process of originating, approving, assisting and managing this variety of projects has produced a unique kind of negotiating that generally results in what might be termed "involved compromise" -- a working arrangement in which all parties are involved in doing what's possible to make the project succeed. The process has evolved over the years into a management strategy for responsibility and decision-sharing that might well be examined closely by Federal agencies moving into new federalism.

Projects usually originate on the local level through health priorities set there and must then earn the active endorsement and support of the State government for funding within the States allocation. Finally, they must withstand technical scrutiny by the Regional Office of DHEW and the Commission's health staff. The whole process puts heavy demands on the professional competence, the breadth of outlook, the planning and budgeting capabilities of all parties at every level.

The interdependence mentioned above is a key component of the Commission's approach. It has meant that a major emphasis of the current rural program is to demonstrate health delivery systems that will work in largely rural Appalachia. In practice, local health development groups working with the Governor's office, ARC and DHEW staff, have:

- Extended the services of existing physicians through use of allied health professionals in home health care, satellite clinics, health education, communications networks, and other outreach.

- Been responsible for judicious placement of new facilities and renovation of existing ones.

- Complemented these with manpower training and recruitment programs adding the right number of the right kind of needed personnel.

The objective has been not simply to increase the numbers of services, but to put together comprehensive health systems that are accessible to the entire population. The same health approach, over the years, has developed certain characteristics unique to each sub-region. All, for instance, have substantial investments in primary care, both in and out of the CHDA's. Investment in CHP have been heaviest in the Central and Southern Appalachian counties since most northern counties had already gained CHP support from DHEW.

There are CHDA's in all of the sub-regions. Those in Northern Appalachia have concentrated ARC investments in primary care, home health and emergency medical services. Even in recent years, Southern Appalachia has made its largest investment in traditional health care facilities: hospital, community-based mental health centers, sheltered workshops and manpower programs. Central Appalachia, the area with the most obvious needs has also had the largest share of the health investments. The most noticeable regional projects have been here, some crossing state lines in the provision of services. In Central Appalachia home health care and solid waste disposal management have become region-wide through ARC investments. Mental health care on a community level has become similarly widespread, and many of the counties have invested substantial amounts in environmental control programs such as mosquito and rodent control and tuberculosis control.

The Commission's health activities continue to make a strong contribution to the economic development and viability of Appalachia. Its project investments are not only designed to improve health, but to provide employment in service projects that will have a continuing influx of health reimbursement dollars. Increasingly, the Commission is emphasizing the need for capable management of these projects and a practical approach to what will be financed by third party sources: Medicare, Medicaid, private insurance, etc.

The early years of hospital construction projects assisted in providing the base. This was augmented by service projects designed to bolster the limited services provided by hospitals, and also open up access to the health system. The Appalachian Regional Hospitals system although not initially constructed through ARC funds is a good case in point. The hospital itself or community organizations over the years, have used ARC funds to initiate service projects necessary to round out health

delivery: home health care, emergency medical services, respiratory screening clinics family planning, health education. This approach is helping to move Appalachian areas toward equality with the whole American health system, at the same time provide significant economic benefits for the areas.

The Examples

Any innovative approach to health must take into account an important fact: there is already a "health system" operating in the area, and it has been around as long as the area has been populated. The system may be of varied value but it is there. New projects, new systems do not often move into vacuums. They must adapt to, improve, supplement, compete with, or bring major change, to the existing system.

Below are some examples of ARC-funded projects. Most have involved substantial work within the Appalachian region by the States, by the Commission and by DHEW. Several have drawn on outside technical assistance to solve highly intricate or complex problems. None has been simple.

Lawrence County Rural Health Teams, Alabama. The Lawrence County Project, Moulton, Alabama, is an effort to adapt delivery of health services to rural communities by the development of a model system using all of rural Lawrence County as a health care laboratory. Designed to respond to the unique characteristics of this particular rural county the model is applicable in areas where health resources and services are quite different. It is premised on the attending physician seeing the patients the first time they enter the system to assure that patient care is physician-directed. Continuity of care is provided at the primary, secondary and tertiary care level by the Lawrence County physicians delegating responsibility upward to specialists or downward to physicians' assistants and others.

The emphasis is on preventive care, stressing family practice and ambulatory services. Local practicing physicians are on the faculty of the University of Alabama Medical Center and person from the University is attached to the primary care centers. Physicians' assistants recruited from medical corpsmen are screened and trained both at the University and in a practical setting. These and other types of health workers join the family care unit team, whose captain is the local family physician. At full service these teams will reach 27,281 people.

Orange Grove Center for the Retarded, Hamilton County, Tennessee. Organized in 1970 with ARC funds, this center now provides an alternative to institutionalization for the severely retarded in a thirteen-county area of Southeast Tennessee and Northeast Georgia. There are 2,500 on a waiting list for admission to State institutions for the retarded and handicapped in this area. The center offers a comprehensive community program, established through cooperation with other health and education agencies in the counties. Since it is an outpatient care center, including day care for 30 to 60 children, it increases community involvement, while substantially reducing the cost of care.

Recently the center added a program for the blind retarded along with preventive dentistry services, and expanded its parent counseling services. Other accomplishments include increased public awareness and support of such services to the extent that ARC is now supporting only ten percent of the total budget. This type of project has been recommended by federal agencies, such as the DHEW, as well as the President's panel on Mental Retardation, and the Tennessee Comprehensive Mental Retardation Plan.

Hot Springs Health Program, Madison County, North Carolina. A primary care health delivery system in rural Madison County, North Carolina, serves approximately 5,500 persons in the western part of the county. It provides outpatient medical and dental care through a series of small community clinics, the majority of whose clients have never received any dental care. Nearly one-quarter of the population has had no physical examinations in the last nine years. Most families have incomes of \$3,000 per annum or less and are geographically isolated from health care services.

A team approach is utilized, with services being rendered by family nurse-practitioners, other paramedical personnel such as nurses' aides, and dental hygienists and assistants. During the first six months of operation the emphasis was on improvement, expansion, and extension of services. During the second six months two outpost clinics were established, offering extended services including pediatrics, obstetrics and gynecology, and dental care. Linkages are now being developed with health resources in Asheville.

Garrett County Maryland, County Health Officer. Before 1972, the services of the Allegany County Health Officer had been used on a one-day-per-week basis. This project provides a full time resident MD, who, in addition to normal duties for a health officer, is organizing supplements to existing health services by encouraging formation of an association to attract young physicians and offer an inducement for them to remain in the area. Garrett County's physician to population ratio (one per 3,500) is the lowest in the Appalachian part of Maryland. Consequently, health services delivery and initiation of new health-related activities form welcomed part of health officer's job.

In-Service Continuing Education, Rome, Georgia. The Floyd Hospital program of continuing education is serving a network of seven rural community hospitals in five counties, was designed in 1971 to improve the quality of rural patient care by providing a mechanism for continually upgrading the training of the health care providers. The increasing complexity of operations weighs particularly heavily on rural isolated hospitals, for they have less frequent exposure to the practice of complicated techniques, yet the need to have staff well prepared is none the less urgent.

The majority of the current education programs, which rotate among the rural hospitals, are in personal nursing, but staff are now planning to expand them to include programs for other allied health personnel. During the past year, 73 different programs were presented. These ranged from one to 160 hours each and reached approximately 4,375 professionals.

Kentucky Regional Solid Waste Management, Bell County. The final phase of the Regional Solid Waste Management Plan for the counties of the Southeastern Kentucky CHDA, Bell County Solid Waste project has now completed closing, covering and planting 14 acres of open dumps. In addition, project staff have opened a sanitary landfill that is processing 190 tons of solid waste per week. The project director, an environmental sanitarian has begun skillfully negotiating support for financing the rural and the urban collections from the tax revenues of this central Appalachia coal-mining county, where the county income is among the lowest in Appalachia and demands upon revenues still far exceed the resources. This project director has rotated from county to county in the 16 county CHDA, implementing the solid waste management plan that grew out of the original objectives set by the CHDA Council in 1968. Except for organizing rural bulk collection, the entire plan should be implemented this year. Approximately 40 percent of the rural waste is now collected versus 65 percent of the urban waste.

Southeast Ohio Emergency Medical Services. Southeast Ohio Emergency Medical Services, a demonstration project covering seven counties and 3500 square miles, has begun to provide rural Ohio with a complete emergency medical service system. When SEOEM is operational, no injured resident of the area will be more than twenty minutes away from professional medical care. In recent years funeral directors, because of government regulations, rising costs, and service boundary restrictions, sought to withdraw their emergency services, leaving four counties with no service at all. Under the demonstration project, SEOEMS has opened fourteen of seventeen emergency stations in the seven-county area. A central headquarters, now under construction, will house the all-important communications dispatch center, linking the victim to medical care. After a call to the dispatcher via single toll-free number in any of the counties, an emergency vehicle is sent to the site. These vehicles are equipped with up-to-date emergency equipment ranging from resuscitators to rescue-extrication gear capable of lifting an 8000 pound load from a victim.

Emergency Medical Technicians have been trained under the SEOEMS project, in emergency victim care on site and in transit, in cooperation with the Ohio Division of Vocational Education, and will be trained in care for the victim upon entrance to

the hospital emergency room, by the Ohio Hospital Association and the Department of Health and Education. Medical professionals have long recognized that it is often the quality of care provided by the emergency attendant which determines whether a victim lives or dies.

Emergency room staffing and improvement are also vital parts of the SEOEMS system. It provides funds to hire emergency room physicians, improve emergency room facilities, and to develop and improve ambulatory-patient centers. A final aspect of the SEOEMS system is a community education effort to let the county residents know what the SEOEMS can do and to become aware of accident prevention. To accomplish this, SEOEMS staff members visit schools and organizations to speak on the system and its services. The SEOEMS demonstration which has always been a model for the rest of Ohio, was selected as a National model for rural Medical Services by DHEW last year.

Child Development Program

Section 202 of the Appalachian Act was amended in 1969 to provide grants for child development on the same funding basis as those provided for planning, construction and operation of health projects. In the reports accompanying the 1969 Amendments, the Congress directed that the Appalachian child development program serve as a "national laboratory" for coordinated child care.

In the effort to carry out the "intent" of the Congress the Commission has concentrated on two major goals. The first goal has been to foster planning and operating experience essential to manage and administer a program of comprehensive child development services. This goal was established because of the universal need in all states to develop the capacity of State and local communities to make effective use of existing Federal programs having resources available for services to young children. The Commission was also anticipating the launching of major national program in child development, which made the need for capacity building more urgent.

A second major goal was to encourage the development of a series of demonstration projects in each of the Appalachian States. The flexibility of a demonstration program would provide States with the opportunity to develop program models that would be comprehensive in nature, yet responsive to needs determined by States and local communities. At the same time, this approach would enable States to establish program criteria suitable to their goals and objectives, observe and test models as to their relative effectiveness and to develop alternate strategies within the program.

During FY 1973 the Commission approved a significant change in the allocation procedure for programs funded under Section 202. Previously, allocations had been made separately to Health and Child Development. The change in procedure provided a single allocation, thereby enabling the State to build a more flexible program designed to serve the health and developmental needs of all the people within that allocation, there is flexibility for the Health program to provide Child Development services, while the Child Development program is able to provide real coverage for the families of the young child rather than targeting primarily on the child. Experience has demonstrated that this new procedure has not changed significantly the spending pattern of the States in either program. It has permitted a more flexible use of the funds provided each State.

Program Operations

All Appalachian States have established a State Interagency Committee to plan and implement their programs. The Committee is the focal point for coordinating the efforts of the several State agencies, including health, education, mental health, and welfare which deal with young children and their families. These services generally had been fragmented and categorical, reducing effectiveness and leaving great gaps in the delivery of services.

As a result of the FY 1971 projects approved by the Commission, services were provided to 20,000 children and their immediate families. 125,445 children will be reached by one or more services funded in FY 1972. Of these, 12% are receiving

comprehensive day care in center or home-based programs. Approximately 5% of the day care children are handicapped, and their day care includes special services to meet exceptional needs.

Planning for fiscal year 1973 was made exceedingly complicated by the uncertainty over regulations governing Title IV-A of the Social Security Act. The net effect was to limit the scope of operation in those States most immediately affected. For example, FY 1972 projections indicated that ARC projects would generate an additional \$51.7 million, most of it Title IV-A funds, under the original regulations. The actual amount generated in FY 1973 was \$9.5 million for continuations and \$.5 million in new projects.

According to the original FY 1972 predictions, approximately 353 sites were to be established or expanded and over 5,000 local positions required to provide services in projects funded through the Child Development program. Given the changes in Title IV-A, the number of sites have been reduced.

The FY 1971 total served accounted for 1% of the children 0-5 in the region. At that time it was anticipated that in FY 1972 programs would expand to serve 5%, and in FY 1973 expand to serve 7%. The possible 145,445 children funded by the FY 1971 and FY 1972 programs above constitute 7%. Final census figures will be available around mid-March, since many projects approved in FY 1972 have only begun late in FY 1973.

Program Categories

Basically, all Child Development projects approved for support from Section 202 fall into three basic categories: 1) planning, technical assistance and training; 2) research and demonstration; 3) comprehensive child development services.

1) Planning, Technical Assistance and Training.

The planning, technical assistance and training projects are designed to build the capacity of State and local units of government to undertake planning activities, which will integrate, as feasible, local, State and Federal resources and focus them on the development needs of children and their families. These planning activities are carried out under the direction of State Interagency Committees. The process is designed to create improved planning and management of all State resources and services focused on this population.

Technical assistance and training activities are designed to implement State plans and to strengthen the capacity of local communities to manage and administer the single entry point delivery system.

For example, South Carolina has determined that it would design a project to prepare persons to serve as members of day care team. Another South Carolina project provides for State level administrative services for the ARC supported child development programs, liaison services between ARC and the various State agencies, and program development. Georgia, Mississippi, New York, North Carolina and Tennessee have also added similar components to their programs. These projects develop and strengthen program planning, management and administration.

2) Research and Demonstration.

The entire ARC Child Development program is described as a demonstration program or a "national laboratory" for coordinated child care. Nevertheless, it is important to note that the Commission structure affords each State maximum opportunity to carry out research and demonstrations that are within the States range of priorities, so long as they are consistent with the Appalachian Act and Commission Code. Research and demonstration projects are designed to gain new insights for improving organizational efficiency, improving skills of staff at both the State and local program levels and developing improved methods and materials to be used in all service programs for young children.

A significant project was undertaken by New York to develop a model for planning and implementing child development programs which carefully define details of service input by age for normal and handicapped children. Based on this plan, they surveyed needs and resources in a three county demonstration area, and with existing resources, used ARC funds to fill gaps so as to provide services where they did not exist.

Other significant accomplishments of this nature have been the development of two motion picture films that have received widespread approval and are in constant demand by communities throughout the nation, as well as in Appalachia. We would like to expand this activity by taking a closer look at ways to use electronic media to reach children and families who are geographically isolated - especially in Central Appalachia. We believe it is important to consider ways in which we can reach geographically isolated families with a range of experiences that build on social and cultural patterns that are compatible and supportive to their development. Continued research and development plans are being reviewed as to their suitability to achieve this need.

3) Comprehensive Child Development Services.

The major group of projects supported with ARC funds are designed to create a single entry point delivery system for providing needed developmental services. A single entry point implies that once a child or family is identified, that a complete range of preventive services are at his disposal from a single source as indicated by need for such service. The intent is to eliminate overlaps, competition and omissions among various potential providers of any one service; e.g., health screening and follow-up. In many traditional service delivery systems follow-up is separated from diagnosis and screening. Consequently follow-up is rarely undertaken and when it is, the original diagnosis and screening may or may not be used in the treatment program.

While there are variations in the manner and style by which the ARC States organize and deliver comprehensive child development services, there is little variation in what is considered comprehensive services. Each State is free to determine what range of services they will fund from Appalachian Section 202 funds. However, each State is required by the ARC Code to provide a complete range of comprehensive services to the eligible population in the demonstration area whether or not they are funded from ARC funds.

Therefore most States have used ARC funds to expand the range of services already provided by the State or other local or Federal programs and to improve the administrative process for providing these services. The State of Ohio has developed program models that represent the basic patterns and components of service delivery.

The State-planned program for Appalachian Ohio is to establish a delivery system of comprehensive child development services available to all children 0-6 and their families in the 28 counties of Appalachian Ohio.

The total program, developed by the State Interagency Committee and the Ohio Department of Development, will bring together into a single system various existing resources and provide for the additional needed services. The program will be administered by three local development districts: the Tuscarawas Regional Advisory Commission, Buckeye Hills-Hocking Valley Regional Development District, and the Ohio Valley Regional Development Commission.

There are 28 individual projects making up Ohio's FY 1973 child development effort. The projects will provide health care, education, nutrition, and social services including pre- and postnatal care, family planning, health

education, immunizations, medical and dental evaluation, referral and follow-up, nutrition education, emergency food for children suffering from malnutrition, day care, and referrals for children and families with special needs to appropriate agencies.

Between 11,000 and 13,000 children will be reached, about 10% in full year comprehensive day care. The remaining children will benefit from a variety of outreach efforts including screening and follow-up in health and education. The program could require as many as 434 staff positions and establish 12 child development centers.

Administration, Evaluation, and Technical Assistance

An amount of \$1,500 thousand is estimated in both 1974 and 1975 for the provision of technical assistance and evaluation and for administration of the program at ARC and the Department of Health, Education and Welfare. The technical assistance program provides for the contracting of experts in various health and child development subject matter fields to assist and advise State and local groups in providing services to the public. Programs for evaluating the child development and health programs are also planned for 1974 and 1975. The technical assistance and evaluation programs are estimated at 306 thousand for 1974 and \$348 thousand for 1975.

Administrative costs of the program include staff at HEW regional offices to provide technical review of project applications and to monitor ongoing operating-type projects. An estimated \$902 thousand will be required in FY 1975 to fund HEW regional staff assigned to both the comprehensive health development and child development programs. This will fund full-year costs for a total HEW staff of 31 positions, nearly all of which are stationed in 4 HEW Regional Offices.

The ARC staffs provide overall leadership for the program, work closely with State and area officials in the development and review of health and child development plans, and review project applications for program content and their relationship to area health and overall development plans. As estimated \$350 thousand, a reduction of \$145 thousand is requested for funding 11 positions in FY 1975. This reduction is being accomplished by shifting 5 positions to be funded jointly by State and Federal contributions.

Sec. 202: Appalachian Demonstration Health Projects
 Administrative Costs
 HEW unless otherwise indicated

OBJECT CLASSIFICATION (in thousands of dollars)

	1973 actual	1974 estimate	19 75 estimate
Personnel compensation:			
11.1 Permanent positions.....	247	568	667
11.3 Positions other than permanent.....	36	7	7
Total personnel compensation.....	283	575	674
Personnel benefits:			
12.1 Civilian.....	38	50	59
21.0 Travel and transportation of persons.....	80	95	107
22.0 Transportation of things.....	3	15	9
23.0 Rent, communications, and utilities.....	1	4	5
24.0 Printing and reproduction.....	6	9	9
25.0 Other services.....	89	34	21
25.2 Services of other agencies (ARC Administration).....	381	495	350
26.0 Supplies and materials.....	2	11	12
31.0 Equipment.....	11	6	6
Total obligations.....	894	1,294	1,252
<u>PERSONNEL SUMMARY</u>			
Department of Health, Education and Welfare			
Total number of permanent positions...	28	31	31
Full-time equivalent of other positions			
Average paid employment.....	18	30	30
Average GS grade.....	10.9	11.2	11.2
Average GS salary.....	\$16,874	\$18,606	\$19,430

SECTION 205: MINE AREA RESTORATION

(thousands of dollars)

	<u>1973 Actual</u>	<u>1974 Enacted</u>
Appropriations:		
Regular Bill	2,000	4,000
Tropical Storm "Agnes" Supplemental	11,000	--
Obligations, Net	10,949	14,875
<u>Program for 1975</u>		

During 1975 mine area restoration projects would be one of the types of projects funded under the activity "Area Development Programs". It is anticipated that the projects to be undertaken by the several coal-mining States primarily would be of the relatively small surface restoration and pollution abatement projects. Larger subsidence projects could, however, be financed depending on the relative priority of the project within the individual State's package of projects requiring financing within the funds allocated to it.

As is presently the case project applications within these allocations will still require review, evaluation and specific approval for each individual project by the Commission before work can be undertaken.

(thousands of dollars)

<u>Current Status of Program and Financing</u>	<u>1973 Actual</u>	<u>1974 Enacted</u>
1. Funds Available:		
A. Appropriation	13,000	4,000
B. Transfer from Section 212	--	555
C. Unobligated balance brought forward	8,270	10,320
D. Recovery from prior year projects	<u>1,633</u>	<u>4,900</u>
Total Available	22,903	19,775
2. Commitments of Funds:		
A. Prior year projects approved but not obligated, net	5,506	9,663
B. New project approvals	16,044	9,412 ^{1/}
C. BOM Administrative & Engineering costs	<u>696</u>	<u>700</u>
Total Commitments	22,246	19,775
Uncommitted balance, end of year	657	0
3. Unobligated Balance, End of Year:		
A. Approved, but not obligated	9,663	0 ^{2/}
B. Uncommitted balance	<u>657</u>	<u>0</u>
Total, Unobligated Balance	10,320	0

^{1/} \$7,434 committed as of December 31, 1973.

^{2/} Assumes that Bureau of Mines will be able to enter into contribution contracts for all projects by the end of FY 1974.

Program for 1974

As is indicated in the above table, an amount of \$19,775 thousand is available in Fiscal 1974 for obligation in the mine area restoration program. This includes \$4.9 million in funds recovered from prior year obligations largely as a result of construction bids considerably below the amount approved for several large subsidence projects.

Approximately \$9.7 million of the funds available for obligation will be required for obligation of projects by the U.S. Bureau of Mines which the Commission has approved but where the Bureau of Mines has not entered into "Contribution Contracts" with the State and thus has not obligated the funds. Those obligated approvals include four large subsidence projects mostly in the area hit by Tropical Storm Agnes totalling \$9.1 million.

After covering these projects and \$700 thousand for administrative and engineering costs at the Bureau of Mines there remains about \$9.4 million for new project approvals in FY 1974. As of December 31, 1973 nearly \$7.4 million of these funds were committed, including approximately \$5.2 million for phase II of the Scranton Hill section project as provided by House and Senate Committee reports on the 1974 appropriation. There remains approximately \$2.0 million for financing other mine area restoration projects for the balance of 1974.

Program in 1973

During 1973 the Commission committed all but \$657 thousand of the funds available. Although at the close of the fiscal year there was \$10.3 million unobligated nearly \$9.7 million of projects had been approved, but not yet obligated by the Bureau of Mines through its contribution contract process. Since the fiscal year closed we have been advised that bids on three large subsidence projects were considerably less than had been approved by the Commission and that this would result in substantial obligation recoveries expecting to total \$4.9 million in 1974. Some \$1.1 million of these recoveries was in the "Agnes" area and permitted funding an additional project in that area. Most of the remainder is being utilized with unobligated balances being transferred from the inactive Section 212 program to complete funding on the Scranton Hill project.

To date \$10.5 million of the \$11 million provided in the Tropical Storm Agnes supplemental appropriation has been approved for six projects. Five projects for \$8.6 million are subsidence projects in the Wilkes-Barre, Pennsylvania area. The remaining project is a mine drainage pollution abatement project in Allegany County, Maryland, where a pollution problem was accelerated and worsened by Tropical Storm Agnes. Upon completion, the project should enhance the water quality in the Potomac River (North Branch) and the Bloomington Reservoir.

Program Background

Section 205 of the Appalachian Act authorizes programs for (1) the sealing and filling of voids in abandoned coal mines to prevent surface subsidence; (2) the extinguishment of underground and outcrop mine fires; (3) the sealing of abandoned oil and gas wells; (4) the abatement of mine drainage; (5) the reclamation of surface mine areas and mining waste banks on public lands; and (6) the necessary planning and engineering required for the identification, selection, and implementation of these reclamation projects.

While the bulk of the Commission's funds were utilized for mine fire and subsidence projects, this section was amended in 1971 to specifically include the abatement of mine drainage in the program. These substantive amendments have now resulted in the Commission having a sufficiently broad program for undertaking a much more comprehensive approach to remedying mining damages in any area. This new authority reflected one of the principal conclusions reached in the Commission's Acid Mine Drainage Study (completed in 1969) that the abatement of one type of mining pollution should be part of a more comprehensive pollution control and environmental improvement program for the lands and waters of the area affected.

Through the supplemental funds previously appropriated to our Section 302 program, the Commission is contracting for special research on subsidence risk, adjustments and prevention that recognizes the overall problem is one of developing an improved approach to managing land use. Ultimately, Section 205 and 207 projects and other Commission investments should be funded to reflect a policy that will accommodate to the hazards of mining impacts.

Under the Monongahela River Basin project, funded separately via a grant from EPA, techniques have been developed for concurrently solving mine drainage pollution and other environmental problems located in close proximity. Three demonstration sites in the Cherry Creek Watershed of Maryland, the Sewickley Creek section of Pennsylvania and the Dents Run Watershed of West Virginia have been earmarked for demonstration work to illustrate the overall economic improvement which can be derived from the abatement of environmental detriments in these watersheds, primarily acid mine drainage. Work in the Cherry Creek area is currently being funded with Section 205 monies.

At present two States, Pennsylvania and Maryland, have bond financed funds and Ohio has a mineral severance tax for financing mine area restoration work, while West Virginia is seeking an appropriation for this purpose. Unless other State legislatures make funds available projects in those States will need to be financed locally for the non-Federal share.

Under existing legislation the Appalachian Regional Commission is the only agency of government which can give grants to the States for action programs in acid mine drainage pollution work. Several other Federally supported programs are aimed at developing research for development programs and provide additional data on mine drainage abatement technology. The Commission's program is aimed at using existing know-how to apply to this vexing problem.

Administrative and Engineering Costs

The Commission is estimating an amount of \$520 thousand in 1975 for administrative and engineering costs at the Bureau of Mines. This is reduction of \$180 thousand from the \$700 thousand estimated for 1974. For a number of years these administrative costs were at a relatively high amount, as compared with other ARC programs, because the Bureau of Mines directly supervised all mine fire extinguishment projects. Since the last of these projects has been completed costs should go down in 1975.

The budget for 1975 will fund an average number of 31 employees at the Bureau of Mines.

SUMMARY OF APPROVED MINE AREA RESTORATION PROJECTS

December 1973

State & Type of Project	Completed	Underway	Awaiting contribution contract <u>1/</u>	Total	Estimated Total cost of all projects (000) <u>2/</u>	Cost of completed projects (000)
Pennsylvania:						
Anthracite Mine Fire	8	1	0	9	\$16,692	\$13,925
Bituminous Mine Fire	22	3	0	25	1,494	1,260
Subsidence	7	4	4	15	32,695	6,447
Surface Restoration	3	1	0	4	629	370
Oil & Gas Well Sealing	<u>2</u>	<u>0</u>	<u>2</u>	<u>4</u>	<u>171</u>	<u>43</u>
Sub-Total	42	9	6	57	\$51,681	\$22,045
Other States:						
Surface Restoration and Well Sealing:						
Ohio	3	0	0	3	1,258	1,258
Virginia	1	0	0	1	219	219
Maryland	0	0	2	2	2,635	--
New York	1	0	0	1	150	150
West Virginia	<u>1</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>284</u>	<u>284</u>
Sub-Total	6	0	2	8	\$ 4,546	\$ 1,911
GRAND TOTAL	48	9	8	65	\$56,227	\$23,955

1/ A contribution contract is an agreement between the Secretary of Interior and State and local officials assuring that Federal and State funds are available and that legal requirements for conduct of the project will be met. It precedes contracts for actual conduct of work.

2/ Estimate includes both Federal and State funds. Federal (ARC) costs are 75 percent of project costs or an estimated \$42,170 thousand.

NOTE: The projects summarized here are those being conducted in conjunction with the Bureau of Mines, Interior Department. Four additional surface reclamation projects (3-Ohio, 1-Tennessee) were undertaken during the first two years of the Commission's program by the Bureau of Sport Fisheries and Wildlife. This program is no longer operative and the projects are completed.

Sec. 205: Appalachian Mine Area Restoration
 Administrative Costs
 U.S. Bureau of Mines

OBJECT CLASSIFICATION (in thousands of dollars)

	19 73 actual	19 74 estimate	19 75 estimate
Personnel compensation:			
11.1 Permanent positions.....	617	646	457
11.3 Positions other than permanent.....	6	6	6
11.5 Other personnel compensation.....	2	2	2
Total personnel compensation.....	625	654	465
12.1 Personnel benefits: Civilian.....	55	56	40
13.0 Benefits for former personnel.....	1	---	---
21.0 Travel and transportation of persons.....	16	15	15
22.0 Transportation of things.....	6	2	2
23.0 Rent, communications, and utilities.....	19	5	5
24.0 Printing and reproduction.....	4	5	5
25.0 Other services.....	53	50	50
26.0 Supplies and materials.....	11	4	4
31.0 Equipment.....	2	4	4
32.0 Lands and structures.....			
Subtotal administration.....	792	795	590
Less States' share.....	-96	-95	-70
Total obligations.....	696	700	520

PERSONNEL SUMMARY

Bureau of Mines			
Total number of permanent positions...	40	39	28
Full-time equivalent of other positions	3	3	3
Average paid employment.....	42	41	31
Average GS grade.....	9.1	9.1	9.1
Average GS salary.....	\$14,812	\$15,355	\$15,576
Average salary of ungraded positions..	\$ 9,880	\$ 9,979	\$10,079

SECTION 211: VOCATIONAL EDUCATION FACILITIES

	(thousands of dollars)	
	<u>1973 Actual</u>	<u>1974 Enacted</u>
Appropriation	25,500	25,000
Obligations	26,009	25,011
<u>1975 Program</u>		

During 1975 this program will be conducted as part of the Area Development program previously described. Projects are expected to be approved for much the same types of projects as in the past with slightly increasing emphasis on funds for operating type projects. Grants for construction and equipment of vocational education facilities are expected to comprise about 75 percent of this program.

Current Program Estimates

The 1974 program will be at about the same level as in 1973 with a slight increase in operating type projects more than offset by an anticipated decrease in construction and equipment requirements. The following table shows comparable funding requirements by type of project for FY 1973 and FY 1974.

	(thousands of dollars)	
<u>Type of Use</u>	<u>1973 Actual</u>	<u>1974 Estimate</u>
Construction and Equipment	21,862	20,011
Operations	2,482	3,000
Special Demonstrations and Administrative Costs	<u>1,665</u>	<u>2,000</u>
Total Obligations	26,009	25,011
Less prior year balances	- 520	- 11
Balances carried forward	<u>+ 11</u>	<u>+ 0</u>
Appropriation	25,500	25,000

Construction and operating grants are exactly the same kind of grants that are made available to the States under the Vocational Education Act of 1963, as amended. Vocational education is a key element in the training and upgrading of potential and existing labor force entrants. During FY 1973, ARC funds were utilized in construction, equipment, operating and demonstration projects for vocational education totaling 66.9 million in total project costs. Of this, as shown below, \$32.0 million, or 48 percent, was in non-Federal funds with some \$32.6 million or 49 percent from Appalachian funds of which the bulk was from Section 211 funds. It is estimated that when completed, the 59 facilities approved in FY 1973 will provide enrollment capacity for approximately 23,000 students.

As is shown in the table below, State and local funds constitute nearly 48 percent of funds utilized in 1973 as compared to 32 percent in 1972. The increase in State and local contributions offset a decrease in the use of vocational Act funds from the Office of Education and smaller decreases in ARC funding:

(millions of dollars)

Source of Funds	FY 1972		FY 1973	
	Amount	Percent	Amount	Percent
Office of Education Vocational Act Funds	\$ 8.2	11.1	\$ 3.4	3.4
Appalachian Regional Program:	40.7	55.3	32.6	48.8
Section 211 Grants	31.8	43.2	26.0	38.9
Section 214 Supplements	8.9	12.1	6.6	9.9
State and Local Funds	24.7	33.6	32.0	47.8
TOTAL	\$73.6	100.0	\$66.9	100.0

Vocational education is a particularly strong need in Appalachia. Based on data from several Appalachian States, it is estimated that the dropout rate is significantly higher than the Nation's and the proportion of students continuing their education beyond high school is considerably lower than the U.S. average. For instance, in Appalachian Kentucky, only 62 percent of the 9th grade students graduate from high school compared to 75 percent from the U.S. and only 40 percent of the graduates go on to college vs. 53 percent for the U.S. With fewer students completing high school and fewer going beyond the secondary level, the Region produces youngsters less well equipped to face competition in the job market than their contemporaries elsewhere.

At the same time, there is high interest in vocational education in the region. A greater portion of secondary school students in Appalachia participate in vocational education courses than in the Nation as a whole. The Commission is attempting to develop a new profile of manpower skills in Appalachia through heavy investments in vocational and technical education. It is influencing the trend toward curricula which are tailored to existing and future job opportunities.

Construction and Equipment Program

Over one-fourth (\$194.8 million) of the approximately \$735 million non-highway funds obligated through June 30, 1973 has gone into the construction of vocational education facilities. Most of the Appalachian States have listed vocational education or manpower as the first or second priority in their State investment plans for other than highway projects.

As of June 30, 1973 Commission funds were approved for the construction of 450 vocational education projects. It is estimated that when all of these facilities are fully operational, they will enroll 175,000 secondary students and 45,000 post-secondary students. During the first four years, the majority of Commission-assisted projects were for the construction of one or more new buildings to constitute new area schools. However, during the last four years, the trend has shifted to construction of new buildings, or expansion, remodeling, and re-equipping of an existing building or buildings at existing area schools.

The following estimates based partly on a 1971 survey have been prepared on the status of the ARC vocational education construction program in the Fall of 1973. There were 200,000 persons enrolled in the 300 facilities that were in operation in the Fall of 1973. When those facilities and the additional 150 facilities approved through June 30, 1973 reach maximum enrollment, in the 1977-78 period there will be about 295,000 persons receiving vocational education in those facilities.

Type of Program	Current Est. Enrollment	Estimated Maximum Enrollment
Secondary	120,000	175,000
Post-Secondary	30,000	45,000
Adult	50,000	75,000
Total	200,000	295,000

It is estimated that the FY 1974 appropriations will provide construction assistance for approximately 50 facilities with an estimated annual enrollment of 15,000 students. Many of these assisted facilities represent the addition of completely new vocational training opportunities sometimes by replacing older primarily home economics and agriculture oriented training with modern job oriented training opportunities or by providing facilities where none previously existed. At times the ARC grant may not result in as many new vocational education "slots" but serves primarily to replace outdated and cramped older structures or to improve or modernize facilities and the necessary vocational training equipment which is expensive and has relatively rapid obsolescence.

A number of the ARC assisted facilities are utilized for other services such as MDTA institutional training and adult basic education programs, both in the daytime and in the evenings. Also, the facilities are being used for community meetings and educational in-service meetings.

Operating Projects

The need to accommodate this rapid increase in vocational education enrollment plus the impact of the 40 percent set-aside of basic funds and the recent sharp escalation in teacher salaries has placed a severe strain on operating funds for vocational education programs in the Appalachian Region. In recognition of these facts, the Congress amended the Appalachian Regional Development Act in 1971 so that Section 211 funds could be used to support operating programs.

The Commission has adopted priorities for operating grants that include: more efficient use of facilities through double-shift and adult use; career education and career orientation programs; guidance and placement services; programs in fields of critical manpower shortages; and transportation services for isolated rural students.

Through FY 1973, approximately \$4.9 million of Section 211 funds have been approved for 52 annual operating grants. Approximately half of the \$4.9 million was obligated in the first priority area (additional vocational and technical education programs at the Appalachian assisted facilities). Operating grants were approved in all of the other priority areas listed above. Of this amount about \$2.5 million was utilized in 1973 for 18 operating projects including continuations of 12 projects initially funded in FY 1972.

Operating grants included assistance to an interesting experiment in an Erie, Pennsylvania vocational school. To maximize the use of this school they brought in an additional complete faculty (except coaches) and hold two complete sessions in the same building. The first session is Monday, Tuesday, Wednesday; the second session on Thursday, Friday and Saturday. Each student goes to school 8 hours a day (compared with the previous six) with a shorter summer vacation (one month instead of three).

Previously the facility offered 14 programs for 1,150 students. ARC is assisting in this expansion which will add 15 programs and 900 students to the same facility. ARC provided a grant of about \$243,000 for an expansion program of nearly \$2.3 million.

Demonstration Projects

In the 1971 Amendments to the ARDA, the Congress also authorized the Commission to approve grants for "planning, construction, equipping, and operating vocational and technical education projects which will serve to demonstrate area-wide educational planning, services, and programs. The general purpose of these demonstrations would be to find ways to make education and training more relevant in assisting Appalachians to choose occupations and employment through being aware of the range of occupational choices available to them and helping them gain access to the field of their choice. Particular emphasis will be placed on programs which will service the rural population by conducting programs involving two or more school jurisdictions. There is also a need to conduct demonstrations in rural settings of the new approach to vocational education now being implemented by the U.S. Office of Education. This new approach divides all vocations into 15 "clusters" of related occupations.

The Commission adopted priorities for demonstration projects that include: more effective ways to utilize fully vocational and technical education facilities; career education and adult in-service professional development; home-based multi-media individual study programs or self-paced programs; innovative approaches to guidance and to placement; and innovative facility and equipment projects such as mobile classrooms or mobile guidance facilities.

As an incentive to the Appalachian States to conduct demonstration projects, a special set-aside of \$1 million was approved for matching funds utilized by the States in demonstration projects in both FY 1972 and FY 1973. About \$3.5 million of Section 211 funds were obligated through FY 1973 for 40 annual innovative areawide vocational education demonstration projects. Most of the demonstration grants were for projects in the priority area of career education. In FY 1973, \$1.7 million was approved for 20 demonstration projects including continuation of 11 projects funded in FY 1972.

ARC has provided assistance to develop career education programs in at least 38 local education agencies in Appalachian Alabama. Career education is designed to make what happens in the classroom more meaningful to the individual student by relating it to the world and the way in which he will earn his living. It helps elementary students develop awareness of self and the world of work, provides work experiences for junior high students and teaches senior high students the knowledge and special skills they need to become employed or to pursue further education after high school.

The Alabama program, which is being administered by the Vocational Division of the State Department of Education, is developing comprehensive demonstrations of this type of educational program. The results of these demonstrations are being used in developing career education programs for the entire state. For FY 1972, ARC provided \$261,125 of the total cost of \$350,000 for the first year of this innovative project. The project was funded for another year in FY 1973. ARC provided \$238,568 and Part D funds of \$53,570 brought the total cost of the grant to \$292,318.

Evaluation

The Commission has approved an evaluation study to measure the impact of ARC funded vocational education facilities in 25 selected areas of the Region and to assist in the education and manpower category of the program design study. A cross section of Appalachian vocational institutions will be examined in the process.

This study will measure the degree to which ARC assisted vocational education programs have impacted on the areas served by such programs. Of particular significance will be a measure of the number of jobs graduates of the sampled institutions have filled in local industry. The study will include examination of the following:

1. Training relationships between vocational schools and local industries.
2. The rate of placement of graduates with local industries.
3. The effect of the subject schools on attracting new industries to the community.
4. The scope of training programs offered by the subject schools in response to health and child development manpower needs in the community.
5. To assist in the education and manpower category of the program design study.

It is anticipated that the study can provide an adequate and fair approximation of the impact ARC's vocational education program has had in the Region. It is

anticipated the study will provide answers to basic questions concerning the administration of vocational education programs supported by ARC.

Generally most vocational schools report excellent results in the job placement of students. A special five year graduate follow-up study of Asheville-Buncombe Technical Institute, in Asheville, North Carolina completed in the Fall of 1972 reported 92 percent of the Institutes graduates of the past five years as employed in their field of preparation, with only 1 percent reporting dissatisfaction. Eighty percent stated that the degree or diploma earned at Asheville Tech was necessary or helpful in obtaining and keeping their present position.

The graduates reported that they did not have to go into another on-the-job training program. Seventy-six percent said that the training they received at Asheville Tech was adequate for their employment position. Seven percent of the graduates transferred to another institute, one percent have graduated from a four-year college; however, 11 percent have returned to Asheville Tech for additional training.

The Appalachian Commission is influencing the trend toward curricula which are better tailored to existing and future job opportunities. It is assisting in the construction of new facilities offering such courses as drafting, welding, cosmetology, data processing, advertising, child care, aircraft maintenance, highway engineering assistants, merchandising, marketing, chemical technology, horticulture, and mining. In all, there are nearly 100 different courses in schools funded under the Act, according to figures supplied by the States. Only 6.4 percent of the students enrolled in Appalachian program schools are in agriculture courses; 9.1 percent in home economics; 17.3 percent in office education courses; 6.8 percent in technical education; 53.2 percent in trades and industry; 3.8 percent in health occupations; and 3.4 percent in distributive education courses. Each State in submitting an application for Appalachian assistance on a vocational education project is required to demonstrate that course offerings will relate to job opportunities in the locality and surrounding areas. In addition, where the application is for an equipment, construction, or operation grant to provide for a course from which more than one class has been graduated, the project application shall relate such course offerings to date on the placement experiences of graduates who took such courses.

Operation of Program

The Secretary of Health, Education and Welfare is authorized by the Act to make grants for constructing, equipping, and operating of vocational education facilities in the Region. Grants are made for projects which are initiated in each State by the Governor's representative on the Appalachian Regional Commission. The projects are reviewed by Commission staff for their effectiveness in carrying forward State and locally developed plans for the "investment" of allocated funds. They are screened by the Office of Education for their adherence to the requirements of the Vocational Education Act of 1963 and its Amendments. Disbursements of project funds and project monitoring is also performed by the Office of Education. The budget request includes \$53 thousand for a three-man staff in the Office of Education.

Sec. 211: Appalachian Vocational Education Facilities
Administrative Costs
Office of Education

OBJECT CLASSIFICATION (in thousands of dollars)

	19 73 actual	19 74 estimate	19 75 estimate
Personnel compensation:			
11.1 Permanent positions.....	42	42	42
11.2 Positions other than permanent.....			
Total personnel compensation.....	42	42	42
Personnel benefits:			
12.1 Civilian.....	4	3	3
21.0 Travel and transportation of persons.....	1	2	2
22.0 Transportation of things.....			
23.0 Rent, communications, and utilities.....	2	3	3
24.0 Printing and reproduction.....			
25.0 Other services.....	2	3	3
25.2 Services of other agencies.....			
26.0 Supplies and materials.....			
31.0 Equipment.....			
Total obligations.....	51	53	53
<u>PERSONNEL SUMMARY</u>			
Office of Education			
Total number of permanent positions...	3	3	3
Full-time equivalent of other positions			
Average paid employment.....	3	3	3
Average GS grade.....	7.7	7.7	7.7
Average GS salary.....	\$12,572	\$13,827	\$14,089

SECTION 214: SUPPLEMENTAL GRANTS

(thousands of dollars)

	<u>1973 Actual</u>	<u>1974 Enacted</u>
Appropriation	\$37,000	\$34,000
Obligations	39,513	38,026
<u>1975 Program</u>		

During 1975 this program will be conducted as part of the Area Development program previously described. Projects are expected to be approved for much the same types as have been financed previously with the trend continuing toward greater utilization of these funds for water and sewer system grants to promote the community and economic development of the States and sub-regions. Increasing use of the Commission's authority to utilize these funds as first-dollar grants is also anticipated.

Supplemental Airport Safety Grants

The supplemental Appropriation Act of 1971 included an additional \$8.5 million appropriation for supplemental grants. These additional funds were intended to be used only for supplementing airport construction safety projects which have a basic grant provided under the provisions of the Airport and Airways Development Act of 1970. Through FY 1973 a total of \$5.8 million had been committed under this special program leaving a balance of approximately \$2.7 million. The low rate of obligations for the special airport safety grants in 1973 can be attributed to legislation which increased the proportion of basic Federal grants by the Federal Aviation Administration for airport construction from 50 to 75 percent. Whereas in previous years applications for ARC grant assistance under the supplemental program for airport safety could be for as much as 30 percent of the total cost, under the new airport legislation applications for ARC assistance are now for only 5 percent of total cost. On this basis the balances available in this special account will probably be sufficient to cover all project applications in both 1974 and 1975.

The following table reflects the fiscal activity for the entire program and for the regular supplemental grant program after deducting the activity of the special airport program.

	<u>1973 Actual</u>		<u>1974 Enacted</u>	
	<u>Appropriation</u>	<u>Obligation</u>	<u>Appropriation</u>	<u>Obligation</u>
Total Appropriation	\$37,000	\$39,513	\$34,000	\$38,026
Less Special Airport Program	0	450	0	2,730
Regular Program	\$37,000	\$39,063	\$34,000	\$35,296

Operation of Program

The Section 214 supplemental grant program was initially designed to assist States, counties, or local communities in the Appalachian Region which were unable to participate in regular grant-in-aid programs for construction of facilities because of a lack of local matching funds. Grants may increase the authorized Federal percentage under existing grant-in-aid programs (which range from 30 percent to 75 percent), to a maximum of 80 percent. The degree of supplementation is determined by the applicant's ability to match the Federal share on a dollar basis. Experience has shown that only one-third of the projects actually use the maximum supplemental grant funds available. In part, this reflects the efforts of the States and the Commission to insure that Section 214 funds are not being substituted for other available Federal and non-Federal funds as directed by the Act. However, the

accelerating pace of planning and development in the Region under the impetus of the Appalachian program, coupled with the concentration of investments in areas to produce the greatest developmental impact is placing State and local governmental units in a position where they are finding it more difficult to provide the money necessary to match Federal grants. This is true in spite of the improved money market conditions for public borrowing. Local governments in particular are being confronted by an ever-increasing demand to provide new and expanded services requiring increased expenditures for capital development. Increased taxes are the major source of funds to meet these costs. Under these circumstances, local governments are finding it difficult to secure authorization for bond issues.

With the Amendments of 1971 (P.L. 92-65), the Commission also was authorized to provide special basic grants when there is insufficient basic money under regular Federal grant-in-aid programs to permit funding of projects. These special grants may be used to supply all or any portion of the basic Federal contribution to projects under Federal grant-in-aid programs. Projects funded in this manner must meet all of the requirements of the basic grant program, as certified by the administrator of such program. These special basic grants may not be used as a substitute for Federal and State financial assistance which may be available under other Acts for the same type of programs or projects in the portion of the State within the Appalachian Region.

During FY 1973 increased use was made of this authority wherein a total of twenty-eight projects for \$7.5 million of ARC funds was utilized. This amounted to about nineteen percent of the funds committed in 1973. In FY 1972, there were only seven projects for \$1.7 million or about four percent of the funds committed. During 1974 and 1975, the amounts utilized for this portion of the program are likely to continue to increase as nationwide programs of construction grants are allocated reduced amounts of funds. Grants will continue to be made by the Commission for those types of facilities which are essential to growth and improvement of various portions of the area, and for which other financing is not available.

In granting the Commission these authorities, Congress did not specifically identify which grant-in-aid programs were to be supplemented. Rather it identified a broad list of programs eligible for supplementation. The new Section 214 authority in effect has given the Commission greater opportunity to experiment with a non-categorical or in some respects a modified block grant approach. The States are allocated Section 214 funds by a formula which takes into consideration equality, land area, population, and per capita income weighed inversely.

With few exceptions, the Commission has left to the States the decision concerning which programs would be eligible for supplementation, with the restrictions that individual projects must be related to the social and economic development of the Region.

Proportions of Federal and Local Funds

Since the inception of the supplemental grant program the Federal contribution toward eligible project costs has been 52.3 percent with State or local sources providing the remaining 47.7 percent. While the Federal share of projects in 1972 was nearly 63 percent, the 1973 program indicated only 51 percent of eligible costs was provided by Federal sources. While both Federal dollars and percentages declined in 1973 from 1972 State and local contributions showed an increase so that the total eligible cost of approved projects in 1973 was only slightly less than in 1972. Apparently 1972 was an aberration as far as the higher proportion of Federal funds was concerned, while the 1973 experience represented a more average year in that the Federal proportion of costs was only slightly over 50%.

The ratio of Appalachian supplemental dollars continues to be approximately \$1 dollar for each \$2 of other funds, while non-ARC Federal funds comprises about 45 percent of all Federal financial support.

Summary of Project Financing by Source of Funds

(millions of dollars)

	1972 Program		1973 Program		Cumulative Program thru 1973	
	Amount	Percent	Amount	Percent	Amount	Percent
Federal contribution:						
Other Federal agencies	82	34.3	64	28.1	478	28.6
Other Appalachian programs	20	8.4	12	5.3	100	6.0
Appalachian Section 214	48	20.1	40	17.5	296	17.7
Total Federal	150	62.8	116	50.9	874	52.3
State and/or local share	89	37.2	112	49.1	798	47.7
Total Eligible	239	100.0	228	100.0	1,672	100.0

Note: Not all project costs are eligible for Federal financial support. Ineligible project costs must be financed by the project sponsor, usually the local government unit. Thus, including all costs State and local participation probably comes fairly close to 50 percent.

Types of Projects Assisted

The types of projects or functional areas assisted in the regular supplemental grant program have changed somewhat over the years as the priority needs of the Region have changed. Education and health facilities projects consumed 74 percent of ARC funds through 1972 while in 1973, these programs accounted for only 45 percent of the funds. Corresponding increases, representing increased Federal support for water and sewer programs reflects changing Federal financial support levels and changes in State plans as highest priority needs in education and health projects are met. The following table reflects the use of ARC funds by type of program.

Supplemental Grant Projects Approved
by Type of Program

(thousands of dollars)

Category	1972 Program			1973 Program			Cumulative through 1973		
	No.	Amount	%	No.	Amount	%	No.	Amount	%
Vocational Education	68	8,807	19	46	6,451	17	401	59,587	21
Higher Education	21	3,187	7	7	978	3	213	50,461	17
Libraries	11	644	1	7	1,937	5	109	9,494	3
NDEA	8	694	2	-	-	-	57	6,310	2
ETV	5	785	3	8	1,861	5	22	4,941	1
Sub-Total, Education	113	14,117	32	68	11,227	30	802	130,793	44
Health Facilities	54	10,951	23	25	5,934	15	362	72,951	26
Sewage Treatment	27	7,470	16	12	2,933	7	240	42,757	14
Water and Sewer	49	8,568	19	51	12,103	31	125	22,018	8
Airports	18	2,197	5	25	2,473	6	98	10,465	4
Other	36	2,375	5	27	4,182	11	104	10,320	4
Total	297	45,678	100	208	38,852	100	1,731	289,304	100
Special Airport Safety Suppl.	16	5,123	-	5	618	-	21	5,770	-

1974 and 1975 should show a continuation of these trends with reduced proportions going into airport and sewage treatment projects and with increasing proportions being utilized for water and sewer projects as national programs are changing. During the past about 70 percent of ARC supplemental funds went into health and education projects for human resource development.

As the earlier priority investments in education and health facilities are completed and the quality of the labor force is thus improved, the Region is becoming more attractive as a location for industry. The States are therefore focussing more attention on projects and programs directly related to industrial and commercial enterprises and on finding more efficient means of delivering services. This shift in emphasis is expected to produce greater investments in activities such as industrial park development, transportation, communications, tourism and recreational development in selected areas, etc. Partly because of the shift in emphasis in the area of human resources to operation support (as opposed to construction investments) for vocational education programs and delivery of health services, it is anticipated that a larger portion of the funds previously used for supplemental grant purposes will be used instead as special basic grants in areas such as water and sewer systems where the needs of the Region in comparison to the Nation are still unmet.

Changes in the investment patterns are evident throughout the Region. Virginia's overall program goal thru FY 1973 has been to assist the people of the Region in acquiring the training, skills and health needed to participate in and contribute to the nation's economy. Accordingly, highest priority has been awarded to the development of the regions educational and health care systems. Specifically, it has invested heavily in the construction of area vocational education facilities at the secondary level and its excellent community college system at the post-secondary level. In the area of health, they have promoted the development of a system of county health centers and regional hospitals. Having neared that goal, it is anticipated that Virginia will now concentrate on promoting industrial development in the region. Generally, this will mean improving its transportation network and providing the other necessary facilities and services that will enhance the region for new and expanded industrial development. Tourism and recreational development will also be an important focus.

South Carolina also has invested heavily in its educational system via the development of a system of eleven area vocational education centers at the secondary level, three technical education centers at the post-secondary level and through continued support of the four year higher education institutions in the six-county Appalachian region of the State. The system of vocational and technical education centers is nearing completion and the emphasis is shifting to operating type programs. Special attention will be given to developing and offering curricula that will further the objective of diversifying industry in the six county area. Water systems and water pollution control facilities also have been a focal point for ARC investments in South Carolina. These investments were intended to open up the region to new and expanded industrial development.

Kentucky, for instance, is planning to increase support for both ground and air transportation facilities by access road projects and some supplements for airport construction. The Commonwealth is also committing Section 214 funds to large-scale recreational development projects in which private participation is encouraged.

New York has recently utilized Section 214 supplemental and special basic grants in combination with three other Federal funding sources plus State and local monies in order to develop an Appalachian Telecommunications Network in the State's 14 Appalachian counties. The three phases of development (i.e., the construction of basic transmission systems, the installation of reception facilities, and the installation of microwave interconnections) are regional in scope and complement and support the multiple objectives of the educational programs established in the school districts or functioning through the Boards of Cooperative Educational Services (BOCES). Phase I and II development has been completed in some BOCES and is in the application stage in others, while Phase III development is lagging somewhat behind. It should be noted that, while the program is being developed primarily for educational purposes, it has implications beyond the pale of training and education. At present, discussions are under way with various agencies and public interest groups to explore non-educational uses of the system (e.g., for linkage with medical emergency and law enforcement communications systems).

Pennsylvania, in maintaining the basic economic development thrust of its Appalachian Program, reaffirms that highest priority for the use of ARC supplemental aid and other categories of assistance shall continue to be given to those projects which are evaluated to be most important to achieving the objectives of the creation of new jobs and the essential community facilities so important to any soundly conceived development program. Pennsylvania has maintained those objectives consistently over the life of the program, but has made changes in its strategies for achieving them. The Commonwealth accords highest priority for supplemental aid to water and/or sewage systems relating directly to industrial development opportunities. The significant change in strategy, initiated two years ago, is the replacement of emphasis on specific local problems inhibiting such development, by concentration on systems that provide for the solution to that kind of problem for a number of communities lacking such systems. This approach in the long run results in a much more economical use of resources in terms of financing, use of lands, and construction costs. And, most important in terms of maintaining development momentum, the approach more adequately assures sufficient capacity for the associated residential and/or commercial kinds of development which can reasonably be anticipated to occur as a result of significant industrial development.

Although Pennsylvania has limited the use of Section 214 supplemental aid in vocational educational investments over the life of the program due to the availability of some State aid for such expenditures, the ordering of priorities in vocational education again illustrates the Commonwealth's concern that the most critical problems inhibiting development receive first priority attention. The first priority in the ranking of vocational education investments is for the construction and equipping of new facilities in areas totally lacking any schools. The curriculum must be related to eliminating known skills deficiencies existing in the job market for the area. That priority is followed by expansion of existing schools as needed, equipment programs for existing schools and community colleges having vocational courses, equipment programs for comprehensive high schools, construction of vocational education facilities at the community college level, and rehabilitation programs for the handicapped in the order given.

Georgia's Plan exhibits a clear development strategy for the use of ARC funds. Based on analysis of population projections and evaluation of other factors affecting physical development, which indicate major urban concentrations along Georgia's interstate highways, Georgia is concentrating its investments along the I-75 and I-85 corridors in an effort to accommodate growth in an orderly fashion. The strong diversification of industrial development occurring in Appalachian Georgia must be matched by appropriate investments in area-serving facilities to maintain an orderly momentum to such growth. The increasing needs for post-secondary and specialized vocational training programs in Georgia's Appalachian Region is a reflection of the evolving diversified economic development base. The increasing costs of vocational education at the local level has required increased allocation of Section 214 supplemental aid to vocational education programs.

Like Georgia, the Appalachian Region of Alabama is experiencing strong industrial development requiring emphasis on region-serving facilities to meet the needs of industry and to assure a development base for the residential and/or commercial growth that accompanies such growth. Area-serving systems, such as water and sewage, are being more heavily emphasized. And, much heavier emphasis is being placed on vocational programs for more specialized and higher technical skills training activities as a result of industrial development--the central theme of Alabama's new State Plan.

Alabama's vocational education program therefore, has now reached a second phase of development. The Phase II program is characterized by a concentration on upgrading the quality of existing facilities and instruction as well as the diversification of training programs which offer a higher degree of technical skills to meet specific current and projected needs of the expanding industrial climate in Appalachian Alabama. In addition, programs to expose young students to the new career opportunities now available in a State where approximately 75 percent of high school students do not go on to college.

As in the past, the States' investment decisions for FY 1975 will be made in the following sequence:

1. Each State determines the degree of emphasis it wishes to place on program areas set forth in its Appalachian Development Plan (which is subject to Commission approval). Increasingly, such determination is made with the help of input from the Local Development Districts.
2. Each State then determines where it will concentrate its investments in order to achieve the economic impact the Act requires.
4. For a supplemental grant, each State determines the ability to pay on the part of the applicant and provides only the dollar amount of Appalachian assistance required to make up the difference between the available basic grant and the funds available to the applicant (which, however, must be at least 20 percent of the total eligible project cost).
5. Where basic Federal grant funds are lacking, application is made for an ARC "first dollar" grant under the criteria and standards as though other Federal funds were available.

Administrative Costs

Administrative costs are shown for the first time since 1967 when Section 214 funds were appropriated to and administered by the Secretary of Commerce. These administrative costs are requested only for those grant projects which are carried out by other Federal agencies where ARC funds represent the only Federal money. It is anticipated that the largest portion will be requested by the Department of Agriculture for administering water and sewer grants. Administrative costs include salaries, benefits, and travel as shown below in thousands of dollars:

	<u>1973</u> <u>Actual</u>	<u>1974</u> <u>Estimated</u>	<u>1975</u> <u>Estimated</u>
Personnel Compensation	-	\$ 43	\$ 86
Personnel Benefits	-	4	8
Travel	-	<u>3</u>	<u>6</u>
 Total Obligations	 -	 <u>\$ 50</u>	 <u>\$100</u>
 Average Paid Employment	 -	 2	 4

SECTION 302: RESEARCH, DEMONSTRATIONS,
AND LOCAL DEVELOPMENT DISTRICTS

(thousands of dollars)

	1973 Actual	1974 Enacted	1975 Estimate	Increase/ Decrease
Appropriation	11,000	7,500	8,500	+ 1,000
Obligations:	8,989	10,510	8,500	- 2,010
Regular	6,576	9,423	8,500	- 923
Tropical Storm Agnes	2,413	1,087	--	- 1,087

1975 Program

An appropriation of \$8.5 million is requested for this activity to finance the Federal contribution toward the administrative expenses of Local Development Districts, to support of program of research and technical assistance, and to fund a limited number of education and local development district demonstration projects. The funds requested represent an increase of \$1.0 million from funds appropriated in 1974. The comparable requirements for these programs are as follows:

(thousands of dollars)

	1974 Enacted	1975 Estimated	Increase/ Decrease
Local Development Districts	\$ 3,200	\$ 4,000	\$+ 800
Research and Technical Assistance	2,856	2,500	- 356
Demonstration Programs	<u>3,367</u>	<u>2,000</u>	<u>-1,367</u>
Sub-Total	9,423	8,500	- 923
Special Supplemental Program for Tropical Storm Agnes	<u>1,087</u>	<u>0</u>	<u>-1,087</u>
Total	\$10,510	\$ 8,500	\$-2,010
Financed from prior year's balances	<u>-3,010</u>	<u>0</u>	<u>+3,010</u>
Appropriation	\$ 7,500	\$ 8,500	\$+1,000
<u>Local Development Districts.....</u>			<u>\$4,000</u>

The Commission requests \$4.0 million for the continued funding of its 69 multi-county development districts. The amount represents an increase of \$800 thousand over the FY 1974 amount and with some \$500 thousand obtained from savings of prior year grants and projects funded from 1974 appropriations will provide annual operating budgets of \$4.5 million for the 1975 operating year of the local development districts. The increase in operating budgets is the first for many LDD's since 1973. The requested budget will provide for cost increases and in some cases expansion of district planning and development programs.

Such a program can help to achieve continuing improvement in economic and social development of the region, provide a common base of information, and support a set of programs that can be used by Federal and State agencies for the development of the region, and which will increase the effectiveness of Federal and State programs for Appalachia.

Increasing responsibilities are being placed upon the Local Development Districts both by the Appalachian Regional program and by a number of existing Federal programs. The Commission increasingly depends upon greater district involvement in Commission programs of education demonstrations, child development, health, areawide housing, solid waste disposal, and other environmental programs, among others. Also, Appalachian development planning by the States has increasingly drawn

upon district resources. In most of the States, the districts are formally recognized as the areawide "umbrella" organization for the region. This responsibility includes the A-95 review activity. A number of local development districts were extensively utilized in recovery planning efforts following the 1972 Agnes related floods. The net result is a continuing growth in the district's role and responsibility in the overall development process of the Appalachian Region.

In FY 1974, ten districts are being funded for a full year for the first time. First year funding is at a lower level and below that required as district program and staff reach their normal on-going strength in subsequent years. Inflationary increases, States' requirements, and so forth, will continue to require additional funds for the districts to maintain an adequate level of services. All of these factors, coupled with the fact that annual program funds available to most of the districts from the Appalachian Program, have been kept at the same level for the past several years, will place heavier than normal demands on district administrative support from the Commission. Furthermore, an alternative source of increased funding for districts that would have been available under HUD's proposed Planning and Management Assistance program, failed to materialize for FY 1974.

For the 1975 operating year, the Commission proposes as a general rule, a basic ARC contribution to the cost of a district per year of \$70,000. At the time the district allocation is prepared, this basic formula is applied in combination with other factors such as, for example, funds from other Federal sources, possible increases in State and local contributions, and anticipated savings from prior year grants. For the 1975 operating year this would require gross operating grant approvals of \$4.5 million. With the use of savings from prior grants and a few projects financed from 1974 funds, this will result in an appropriation requirement of \$4 million. The following table indicates comparable 1974 and 1975 estimates by State.

STATE BY STATE SUMMARY OF ESTIMATED DISTRICT FUNDING

	1974 Operating Year		1975 Operating Year	
	No. of LDDs	Amount ('000)	No. of LDDs	Amount ('000)
1. Program Amounts:				
Alabama	7	419	7	470
Georgia	6	306	6	325
Kentucky	8	587	8	625
Maryland	1	86	1	90
Mississippi	4	200	4	225
New York	3	134	3	190
North Carolina	7	331	7	450
Ohio	3	117	3	145
Pennsylvania	7	443	7	495
South Carolina	1	141	1	150
Tennessee	5	298	5	335
Virginia	6	367	6	410
West Virginia	11	415	11	540
Contingency	--	--	--	50
Sub-Total	69	3,844	69	4,500
Less Estimated savings		- 233		- 240
Net Requirements		3,611		4,260
Financed in FY 1973		- 671		--
Financed in FY 1974		2,940		- 260
Financed in FY 1975		--		4,000
Reserved for 1975 Funding		+ 260		--
Appropriation Requirements		3,200		4,000

Research and Technical Assistance.....\$2,500

(thousands of dollars)

Comparative Obligation Levels:

	1974 Enacted	1975 Estimate	Increase/ Decrease
Commission Research:			
Commission Research	1,029	750	- 279
LDD Administration	240	250	+ 10
Sub-Total	<u>1,269</u>	<u>1,000</u>	<u>- 269</u>
State Research and Management:			
Technical Assistance and Research	1,187	1,400	+ 213
Management Assistance	400	100	- 300
Sub-Total	<u>1,587</u>	<u>1,500</u>	<u>- 87</u>
Total Research and Technical Assistance	2,856	2,500	- 356

The amount of \$1 million is requested in 1975 for commission research and technical assistance on a multi-state or subregional level. During 1975, under the category Commission Research, a program evaluation effort will be emphasized carrying forward similar efforts initiated in 1974 in connection with a review of the present Appalachian program design. This program evaluation will attempt to assess the impact of the individual ARC programs and overall ARC efforts in selected geographic areas represented by Local Development Districts. Commission research funds will also provide \$250 thousand for the staff that administers the LDD and research programs. The decreased level of support results partially from a decrease of \$140 thousand as the financing of Commission technical support personnel becomes a joint Federal-State funding responsibility.

In 1975, as in past years, the Commission will continue its programs supporting state research and management projects. The objectives of the Commission's state research and management program are to assist the States, LDD's, and local governments to understand factors affecting their development, analyze ways and means to utilize or to counteract these factors for improvement of their physical, human, and economic environment, strengthen capabilities to participate fully and actively in the Appalachian program and to selectively initiate or continue demonstrations of regional transferability and significance.

An amount of \$1.5 million is requested for 1975 for funding state research and management. In terms of categorical use, this request represents a slight decrease from the program level estimated for 1974. It is expected that during 1975, some additional demands will be placed on state research and technical assistance funds as the States participate in program design and assessment studies. There is also increased emphasis in the States on relating their Appalachian development planning to state-wide development planning activities in some cases and expanding the Appalachian experience to be used state-wide in others. Furthermore, special environmental projects as they may be requested by the States will be funded from the state research and management assistance category.

The Commission in 1973 and 1974 initiated a special state management assistance program to provide financial assistance to Appalachian states for hiring of limited additional staff so states could more effectively utilize the Appalachian program. More specifically, the state management program was developed to strengthen capabilities in development planning, policy analysis and program management and coordination. An estimated \$100,000 of the \$1.5 million requested for state research and management is proposed for use in the state management program, a reduction from the Fiscal Year 1973 and Fiscal Year 1974 funding level of states for management purposes.

Although no special funding is proposed for environment/resource research and technical assistance in Fiscal Year 1975, it is anticipated that grant emphasis will be placed by Appalachian states on continued studies in this field under the State research category. The current energy situation will likely place major demands,

opportunities, and problems upon Appalachian coal producing States. Coupled with increased demands are the environmental consequences of increased mining activity. The Commission expects to avoid studies where other more technically qualified agencies could provide the needed data. However, the Commission can provide support for studies concerning the less technical aspects of the probable upturn in coal mining activity and the Commission will encourage studies which might help prevent a recurrence of the type of problem that has plagued Appalachia in the past. Coal is not the only mineral of significance in much of Appalachia. With the current national concern regarding over-dependence on foreign mineral production, it is also anticipated that Appalachian States will request funding of research to better realize the potentials of greater development of non-coal mineral resources.

Some examples of specific recent research projects funded include:

1. Alabama Multi-Model Transportation Study. The overall project will: (1) determine adequacy of current state transportation systems; (2) collect and analyze transportation data required for the National Transportation Study; (3) develop a state transportation plan for 1990 and a state transportation program for 1980, both of which shall be "financially reasonable" (in view of anticipated Federal revenues); and (4) thoroughly analyze and report on major transportation policy issues. The program will involve the Local Development Districts throughout Alabama.
2. Water and Sewer Feasibility Study and Technical Program for Public Facilities Development in Appalachian Ohio. This project will produce engineering feasibility designs relative to the planning and construction of water and sewer facilities, including cost estimates and analysis of types and locations of such facilities, essential to aid in directing future growth in and around Lucasville, Ohio. Also, the project will fund a public facilities specialist to work within Ohio's three LDDs. The specialist will assist in analyzing and evaluating the public facility needs, resources, and constraints of local communities, and aid in the establishment of development plans and priorities.
3. A Tri-State (Georgia, North Carolina and South Carolina) Recreation Development Plan utilizing a grant from the Bureau of Outdoor Recreation, U.S. Department of the Interior, plus an ARC Section 302 grant. This effort involves a comprehensive analysis of alternative plans for recreation development while maintaining this Southern Highlands area's valuable natural resources.
4. A Cumberland Gap Development Plan which assessed the many alternatives for locating a portion of Appalachian Corridor "F" through the Gap between Virginia, Kentucky, and Tennessee, together with a plan for restoration of the Gap.
5. The First Tennessee-Virginia Development District Cable TV Project. This is a project designed to ascertain whether local organization of broadcasting can be useful for citizens in the District. It will seek to discover how the District, in cooperation with cable companies, can help to make citizens aware of civic and cultural affairs and how this can be used as a tool for better understanding of regional activities, problems, and needs.
6. Bluegrass (Kentucky) Area Development District Rural Transportation Feasibility Study. The project is to: (1) identify and discuss the social and economic conditions which have a relationship to transportation systems and services; (2) identify adequate service centers and the types of services provided; (3) analyze existing transportation services and systems including an evaluation of their effectiveness; and (4) recommend at least two alternative transportation service programs including a discussion of the capabilities of each program effort. The Local Development District will move to implement the recommendations.
7. A Statewide Regional Plan for North Carolina. The purpose of this project is to provide technical assistance to North Carolina in the design, development, and initiation of statewide development and regionalization plans and programs. It will increase the effectiveness of Appalachian Program administration at both the state and district levels and assist the state in equipping it to administer flexible forms of Federal assistance to coordinate them with available state and local resources.

Demonstration Programs.....\$2,000

Section 302 of the Appalachian Act provides the flexibility necessary to test a number of innovative programs. Special demonstration programs are proposed for FY 1975 in two areas. One will assist Local Development Districts in the planning and initiation of imaginative and innovative efforts to establish multi-jurisdictional and multi-functional programs demonstrating the more efficient and effective utilization of resources or organizational capabilities. The other supports education demonstrations including the regional education service agency approach to providing areawide specialized educational programs, facilities, and resources. During FY 1975, the Commission proposes to continue these two programs at a level of \$1.0 million for each program.

A. Local Development District Program. In order to better respond to the desire for new and innovative approaches for meeting local and areawide needs the Commission initiated, in Fiscal Year 1974, a special demonstrations program for Local Development District efforts which are multi-jurisdictional or multi-functional in nature. The aim is to demonstrate ways of achieving more efficient and effective use of resources available to the districts and local governments they represent.

The special demonstration program will provide the districts with additional technical assistance and funds from the Commission necessary to fill gaps between their normal administrative and financial capabilities and the ongoing support that becomes available for special and innovative programs or projects once they are established. As a result, innovative projects can be initiated which otherwise would not have been undertaken.

Examples of special demonstration proposals already approved for funding by the Commission include the following:

1. FIVCO Area Development District (Kentucky). To plan and carry out a program for using schools and satellite vocational educational facilities in the district to house a variety of social services programs. This program would attain better utilization of large facilities that represent major capital investments for local and state governments.
2. East Tennessee Development District. To develop institutional and administrative arrangements for implementing with the Southeast Tennessee Development District and the Chattanooga Council of Governments an inter-district program of environmental management, emphasizing solid waste recycling.
3. Georgia Mountains Planning and Development Commission. To implement and test a regional data processing service for units of government in the Georgia Mountains district.
4. Lake Cumberland Area Development District (Kentucky). To provide staff support for a Regional Industrial Development Committee operating in a rural, isolated, and rugged part of Appalachia.
5. Muscle Shoals Council of Local Governments (Alabama). To improve fiscal and administrative operations of local governments in the district by hiring a trained individual who would provide technical assistance to local governments on matters such as budget formulation, public improvement planning and programming, and other fiscal and administrative practices and procedures.
6. Southern Alleghenies Planning and Development Commission (Pennsylvania). To develop a floating community college which utilizes existing post-secondary and vocational-technical facilities, the expertise of the education community, and other resources in the district. The community college program would focus on awarding associate degrees and emphasize post-secondary technical education.
7. South Carolina Appalachian Council of Governments. To design and implement a computer-based system for the integration and coordination of human resources services in the district so that a better delivery system will be available to agencies' clients.

These and other demonstration proposals that have been submitted for Fiscal Year 1974 funding have the following characteristics: (1) they represent a special and innovative effort by the Local Development District, (2) they are directed at accomplishing a significant achievement having a special impact on the district, (3) they would demonstrate ways of better using and organizing resources at the local level to capitalize on visible opportunities, and (4) they would strengthen the permanent capacity of the participating Local Development District to undertake similar activities in the future. For Fiscal Year 1975, an amount of \$1.0 million is requested by the Commission to enable support of special commission by and for Local Development Districts at the current level.

B. Education Demonstration Program. The Commission has analyzed the education needs of Appalachia in various ways. These approaches focused on teacher services, local needs assessments at the LDD and State level, and a review of the national economic factors relating to education. One of the many needs that surfaced through these reviews was the fact that over 400 operating Appalachian school systems had less than 1000 students in each. In most instances, school districts with less than 5,000 students find it impossible to provide the services and programs that are required to prepare students for meaningful careers.

The Commission determined several years ago that one way to overcome this inequality of education would be for school districts of these smaller sizes to combine their resources. This led to the development in the Region of the Regional Education Service Agencies (RESA's) which offer participating school districts in Appalachia a cost-effective method of providing services and programs which individually those same districts would find too cumbersome and expensive to provide.

In addition to offering programs such as these, another important function of the RESA is to provide the mechanism whereby its participating districts can tap resources already existing in their areas, in particular the services of institutions of higher education and the funds available under Federal and state education programs. Presently, five states have passed permissive legislation (New York, Pennsylvania, Kentucky, Tennessee, and West Virginia) giving RESA legal status and qualifying them to receive state and local funding. Other RESA's usually operate through some other government entity.

Some Examples of RESA Programs

Several RESA programs give good example of attaining these objectives. The Regional Education Service Agency at TARCOG (Top of Alabama Regional Council of Governments) serves the needs of eleven school systems in five counties and 36 city governments in Appalachian Alabama.

Over the past two years TARCOG has been able to plan and implement education programs in special education, adult education, vocational guidance counseling, early childhood education, and the use of educational television. These programs total over a million dollars funded jointly through Federal, state, and local sources.

The most recent example of TARCOG RESA's contribution is a state-wide program of adult education through the state ETV system. The courses presented over the ETV system will allow various adult participants to, upon successful completion of the test, receive a high school equivalency diploma. The state believes that programs such as this, pioneered by the RESA, can make a substantial contribution to retraining a large number of its adult population for better jobs.

Another example of a RESA providing spectacular results is in the Dilenowisco area of southwestern Virginia. It includes Dickenson, Lee, Norton and Wise Counties. The Dilenowisco area is what many people think of when they hear the word Appalachia--spectacular beauty tainted with the classic problems of isolation, low-income and a one-industry economy (coal mining), declining population and out-migration, particularly the young. Dilenowisco, like TARCOG, has set up a series of programs to provide better education services to the people in the four counties of southwestern Virginia. These projects focus on providing services to children with impaired hearing, pre-vocational program designed to retain the potential early dropout, help change the pattern of early failure frequently resulting in early dropout, and finally programs to support good guidance counseling for pre-vocational as well as academic students.

Just four years old, programs such as these have touched the lives of many southwest Virginians. Presently, Dilenowisco provides \$3,000,000 worth of special programs to the school districts and the people of southwest Virginia. The Appalachian Commission's share of that program began with a \$1,000 grant in 1970 and will conclude this fiscal year with \$60,000.

During Fiscal Year 1975, approximately \$800,000 will be required for continuing the support of 14 ongoing education demonstration programs. It should be pointed out that at least four of the education demonstration programs will be reaching their final year of funding under the ARC four-year phase-out funding scheme. An additional \$200,000 will be required to fund other education demonstrations identified by the states in their education plans. Therefore, a total budget for ARC RESAs and education demonstrations will be \$1 million.

Sec. 302: Research and Local Development District Program
OBJECT CLASSIFICATION (in thousands of dollars)

	1973 actual	1974 estimate	1975 estimate
Personnel compensation:			
11.1 Permanent positions			
11.3 Positions other than permanent			
11.5 Other personnel compensation			
Total personnel compensation			
12.0 Personnel benefits			
13.0 Benefits for former personnel			
21.0 Travel and transportation of persons			
25.0 Other services			
Administration	220	240	250
Technical Assistance	300	140	---
Contractual Services	5,782	6,930	4,250
25.2 Services of other agencies (Corps of Engineers)	1	---	---
26.0 Supplies and materials			
31.0 Equipment			
32.0 Lands and structures			
33.0 Investments and loans			
41.0 Grants, subsidies, and contributions	2,686	3,200	4,000
42.0 Insurance claims and indemnities			
43.0 Interest and dividends			
44.0 Refunds			
99.0 Total obligations	8,989	10,510	8,500

SECTION 207: APPALACHIAN HOUSING FUND

(thousands of dollars)

	1973 <u>Actual</u>	1974 <u>Enacted</u>	1975 <u>Estimate</u>	Increase/ <u>Decrease</u>
Appropriation	\$3,500*	\$1,500	\$ --	\$-1,500
Obligations	629	3,692	2,127	-1,565

*Includes \$1.5 million supplemental appropriation for recovery programs related to Tropical Storm Agnes.

Appropriation Request

No additional funds are requested for 1975. However, the addition of \$200 thousand of loan repayments and \$1,927 thousand of prior year balances will provide a program in FY 1975 aggregating \$2,127 thousand. The 1975 program will provide \$1,000 thousand for approximately 22 planning loans, \$685 thousand for approximately seven site development grants, \$500 thousand for technical assistance in six States, \$100 thousand for write-offs of loans, and \$30 thousand for administrative costs incurred by Department of Housing and Urban Development.

Description of Program

Substandard housing is one of the major problems of Appalachia. More than one out of every four families lives in homes that need replacement or repairs. In some counties of Southern West Virginia and Eastern Kentucky, nine out of ten houses are sub-standard. Despite these conditions, Appalachia has not received a proportional share of increased housing for low- and moderate-income families that has been available nationwide.

The purpose of Section 207 is to stimulate the construction and rehabilitation of Federally-insured housing for low- and moderate-income families. It accomplishes this through three types of special assistance designed to stimulate the production of low- and moderate-income family housing in Appalachia: (1) planning loans, (2) technical assistance grants, and (3) site development grants.

1. Planning loans are made to housing sponsors for 80 percent of the cost of planning and obtaining financing for housing projects. Eligible housing sponsors include non-profit organizations, cooperatives, public bodies, and limited-dividend corporations.

Loans are made to cover specific items that a sponsor must fund in order to make applications and obtain a mortgage insurance commitment under either Sections 221, 235, or 236 of the National Housing Act. These items include consultant fees, land options, market analyses, processing fees, preliminary architectural fees, preliminary site engineering fees, and construction loan financing fees. The costs of these items normally can be included in a mortgage. Accordingly, when a construction loan or, in some cases, a permanent insured mortgage, is made for a project, the planning loan made under the Appalachian program is repaid. When planning loans are made to non-profit corporations, etc., provision is made for a waiver or write-off of the planning loan if the applicant is unsuccessful in obtaining the project financing or if it is determined that repayment of the planning loan cannot be made from mortgage proceeds.

Through December 31, 1973, the Commission had approved 107 loan applications for projects which, if all go to completion, would contain up to 12,053 housing units. At present approximately 7,609 housing units are anticipated for construction. Approved loans totaled \$4.4 million, an amount covering the planning cost of \$178 million in eventual construction. Gross loans amounting to \$1 million, which will provide for approximately 22 planning loans, are estimated for 1975. This would finance planning loans for approximately 2,500 housing units.

2. Technical Assistance. Under this portion of the housing program the Commission is authorized to make technical assistance grants for the encouragement of low- and moderate-income housing to State and local organizations. The thrust of these services in 1975 will be twofold; to support State housing efforts; and to assist qualified housing sponsors to adjust to national program changes. In both instances, grants would be provided to State agencies.

At present, nine of the Appalachian States have housing agencies created by State legislation. These States are: Kentucky, Maryland, New York, North Carolina, Pennsylvania, South Carolina, Tennessee, Virginia, and West Virginia. In addition, Ohio has prepared legislation which is being considered by the State Legislature for approval, and, the other three States have housing responsibilities assigned to existing agencies through executive action. In all instances, the States are working with local communities or private organizations to help solve housing problems. Part of this effort involves providing encouragement to private builders and developers through market information and in some cases, through State financing. Through December 30, 1973, the Commission had approved technical assistance grants to 12 States for a total of \$1.3 million. The remaining State, Kentucky, is currently in the process of preparing an application for technical assistance.

With respect to the Commission's objective of helping local organizations adjust to changed Federal policy regarding housing subsidies, efforts will be made to adjust plans, where feasible, to qualify projects for Federally-insured, non-subsidized mortgage programs. During FY 1975, the Commission plans to make available \$500 thousand for approximately six grants to the States. The grants would average around \$90 thousand each.

3. Site Development Grants were authorized by the 1971 Amendments to the Appalachian Act. The new authorization was responsive to experience gained by the Commission with the Section 207 planning loan program which revealed that many communities were not able to produce housing assistance programs. There are two principal reasons for this: (1) relatively low family incomes and the high cost of land development caused by the rough Appalachian topography and (2) the lack of direct accessibility of available building sites to sewer and water facilities. Thus, on one hand, rents and sale prices must be within reach of the financial means of low- and moderate-income families while on the other hand they must be high enough to cover full development cost. Frequently, the latter requirement would prevent the sponsor from meeting the low rent or sales cost necessary and the project could not be built. The result is that many lower-income families cannot obtain adequate housing. Ironically, the cost difference may be relatively small (between \$500 - \$1,000 per unit) between a feasible project and one that cannot carry full costs.

Accordingly, Section 207 was amended to permit the Secretary of Housing and Urban Development to approve grants to public bodies or to non-profit housing sponsors for the purpose of meeting development costs, including necessary off-site costs, directly associated with the cost of a housing project, provided such costs could not be included in a mortgage. Eligible costs would include, but not be limited to, sewer and water line extensions, drainage facilities, and grading. Through December 31, 1973, the Commission had approved seven site development grants for a total of \$588 thousand. Of these, HUD had obligated one grant contract for \$88 thousand in the Tropical Storm Agnes area.

Seven additional site development grant projects applications are in preparation from areas in New York damaged by Tropical Storm Agnes. Together these projects would account for 732 housing units and represent approximately \$14 million in new construction. The site development grant request for all seven projects is expected to total over \$1,400 thousand.

Additional site development grant requests are being developed in other States in the Appalachian Region. At least three projects are expected from Pennsylvania, two projects from New York (in addition to the seven mentioned above), two from Ohio, and one each from Kentucky, Tennessee, and West Virginia respectively.

An amount of \$685 thousand which will provide for approximately seven project grants is estimated for 1975. This would finance site development grants for approximately 500 units. The following tables summarize the financial and program operations of the Housing Fund.

APPALACHIAN HOUSING FUND

1. Summary of Financial Operations

(thousands of dollars)

	Cumulative thru 1973	FY 1973 Actual	FY 1974 Enacted	FY 1975 Estimate
Obligations:				
Gross Loans	\$ 4,130	\$ 672	\$ 700	\$ 1,000
Less Partial Cancellations	<u>-555</u>	<u>-243</u>	<u>-150</u>	<u>-188</u>
Net Loans	3,575	429	550	812
Loans Waived (grants)	35	12	100	100
Grants to State Agencies	901	61	600	500
Grants for Site Development:				
Agnes	88	88	1,412	--
Other	--	--	1,000	685
Administration	<u>104</u>	<u>38</u>	<u>30</u>	<u>30</u>
TOTAL OBLIGATIONS	\$ 4,704	\$ 629	\$ 3,692	\$ 2,127
Financing:				
Loans Repaid	\$ 611	\$ 130	\$ 200	\$ 200
Interest	12	1	0	0
Appropriations	8,000	3,500	1,500	--
Balance brought forward	<u>--</u>	<u>917</u>	<u>3,919</u>	<u>1,927</u>
TOTAL FINANCING	\$ 8,623	\$ 4,548	\$ 5,619	\$ 2,127
Unobligated Balance End of Year	\$ 3,919	\$ 3,919	\$ 1,927	\$ 0

2. Summary of Program Operations^{1/}

December 31, 1973

State	Operation of Loan Program			Value Construction	Technical Assistance Grants
	Projects Approved	Gross Amount of Loans	Number of Dwelling Units		
Alabama	7	\$ 224,833	785	\$ 11,800,000	\$ 85,000
Georgia	10	403,866	898	12,773,346	147,726
Kentucky	3	99,945	175	2,064,290	0
Maryland	3	157,340	250	3,736,175	124,464
Mississippi	1	318,800	1,250	16,000,000	75,000
New York	3	210,672	275	4,612,300	100,726
North Carolina	10	633,056	1,750	23,928,200	100,000
Ohio	9	184,036	846	11,585,000	96,000
Pennsylvania	42	1,679,609	3,863	64,966,025	197,260
South Carolina	0	0	0	0	149,083
Tennessee	6	190,430	388	5,500,030	91,860
Virginia	0	0	0	0	100,000
West Virginia	<u>13</u>	<u>366,740</u>	<u>1,573</u>	<u>21,949,400</u>	<u>100,000</u>
Total	107	\$4,469,327	12,053^{2/}	\$178,914,766	\$1,367,119

^{1/} One \$88,460 site development grant contract was approved for New York.^{2/} An estimated 7,609 units are anticipated to go to construction.

Program Accomplishments

The most recent program accomplishments have been in the area of technical assistance. Although the technical assistance program was enacted into law after the planning loan program was well underway, the technical assistance program is in full stride and some of the results are becoming apparent. A few examples of these accomplishments which have been assisted by our technical assistance program follow:

In Tennessee, legislation was enacted in May 1973 to provide for the establishment of the Tennessee Housing Development Agency (a State housing finance agency). The Governor appointed the THDA Board of Directors who, at their first meeting in August 1973, adopted its Bylaws and appointed an Executive Director. Since that time, the Agency has begun to hire staff, to provide a range of technical assistance functions, and steps have been initiated that will lead to the issuance of tax exempt revenue bonds for financing moderate-income housing projects within the State.

The West Virginia Housing Development Fund has issued \$49.8 million, the Virginia Housing Development Authority \$53 million, and the Maryland Housing Fund has sold \$7 million of bonds of this type. In addition to financing moderate-income housing, these agencies are also conducting comprehensive housing technical assistance programs.

The Pennsylvania Department of Community Affairs conducts an excellent housing technical assistance program that includes State loans and grants in addition to advice and professional services. Also, Pennsylvania is conducting a one-year comprehensive review and evaluation of its housing policies and programs to include recommendations for legislative and administrative changes that would improve the State's housing delivery systems.

Both Georgia and Alabama are providing technical assistance services to non-profit sponsors of low- and moderate-income housing. In addition, both States have developed legislation for housing finance agencies which they expect to be enacted during their next State legislative sessions.

New York and Virginia are emphasizing the development and enforcement of housing and building codes in addition to other technical assistance functions.

The Governor of South Carolina is requesting legislation for a State guarantee program for low- and moderate-income housing development with an initial appropriation of \$10 million. The proposed guarantee program would enable the South Carolina State Housing Authority to stimulate construction of approximately 2,000 low- and moderate-income homes.

The Commission has recently updated data from a previous comprehensive on-site evaluation of its Section 207 seed money loans and the resulting housing projects where sites were visited and sponsors were interviewed in the eleven States where approved Section 207 loans were made.

In summation, the current status of the program at the close of 1973 is as follows:

Thirty-six projects, representing 3,442 housing units, received mortgage insurance and are constructed and occupied.

Nine projects, representing 1,196 housing units, have received mortgage insurance and are under construction.

Twenty-five projects, representing approximately 2,970 housing units, are in various stages of processing by HUD insuring offices.

Thus, 70 projects (represented by 67 approved Section 207 loans), are currently active in the program. These projects represent approximately 7,600 total housing units. The remaining projects (40 loans) are currently inactive or discontinued. It is possible, however, that some of these

inactive projects with a potential of 3,350 housing units may be reactivated depending on decisions concerning the scope and nature of the national housing program.

The on-site evaluation conducted in late 1972 revealed that for the most part the completed projects are providing good shelter for their occupants. Some examples of these projects are as follows:

Two completed projects in Altoona, Pennsylvania (159 units) together comprise one of the best projects observed, combining good construction, management, and maintenance. The sponsor (Improved Dwellings for Altoona) has seen that social, recreational, and employment programs are provided for the tenants and the project has the active support of several local churches. Geneva House (108 units), located in Scranton, Pennsylvania is also an outstanding project. The project, which provides housing for the elderly, has excellent support from its sponsor (a church organization) and from influential individuals in the community. As a result, it was well constructed, equipped, and managed.

A non-profit Mississippi organization, Community Development, Inc. (CDI), is the sponsor of 1,250 units to be located in 10 counties in the northeastern part of Mississippi. Of these units, 600 are constructed and occupied and 333 units are currently under construction. Initially each unit is leased to the Tennessee Valley Regional Housing Authority (TVRHA). After the tenant has acquired sufficient funds for the down payment, and is otherwise qualified, he can purchase his house under the Section 235 program. Another house must be built and leased under the public housing program for each sale in order for TVRHA to retain its commitment of public housing units to HUD. This CDI-TRHA program is the most innovative in the Region in terms of using the Federal housing programs creatively. Also, it is the largest program in the Region in terms of number of units.

One 29-unit rehabilitation project is completed and occupied in Binghamton, New York. This project serves as a good example of scatter-site housing because each unit consists of a rehabilitated, detached house surrounded by other similar houses that were acquired on the conventional market and are owned by their occupants. These 29 units consist of separate properties scattered throughout the City of Binghamton.

One 103 unit project, located in Uhrichsville (Tuscarawas County), Ohio, is one of the best in the region in terms of on-site amenities (e.g. community center) and equipment (e.g. air conditioning). Another Ohio project, in Byesville (Guernsey County) containing 72 units, is also superior in terms of equipment. These two non-profit sponsored projects are providing a significant addition to the housing of these two rural towns.

A 50 unit project, known as Antietam Homes, is located in Funkstown, Maryland. This owner occupied, townhouse complex is sponsored by the nonprofit Homeowners Foundation of Washington County, Inc., which provides counseling and other services, as well as financial support to the project when needed. The residents of the project have formed the Antietam Homeowners Association to represent their interests collectively. One example of how the Association is working to improve living conditions for its members occurred recently when the Homeowners Foundation donated 1.7 acres of land to them. The Association members raised money and contributed their own services to convert the 1.7 acres into an attractive neighborhood park, which is very popular especially among the projects 90 children.

Sec. 207: Appalachian Housing Fund, Executive
Department of Housing & Urban Development

OBJECT CLASSIFICATION (in thousands of dollars)

	19 73 actual	19 74 estimate	19 75 estimate
Personnel compensation:			
11.1 Permanent positions.....			
11.3 Positions other than permanent.....	35	27	27
Total personnel compensation.....	35	27	27
Personnel benefits:			
12.1 Civilian.....	3	2	2
13.0 Benefits for former personnel.....			
21.0 Travel and transportation of persons.....	---	1	1
22.0 Transportation of things.....			
23.0 Rent, communications, and utilities.....			
24.0 Printing and reproduction.....			
25.0 Other services.....			
26.0 Supplies and materials.....			
31.0 Equipment.....			
32.0 Lands and structures.....			
33.0 Investments and loans.....	365	450	750
41.0 Grants, subsidies, and contributions.....	269	1,720	1,420
Total costs, funded.....	672	2,200	2,200
94.0 Change in selected resources.....	-43	1,492	-73
99.0 Total obligations.....	629	3,692	2,127

PERSONNEL SUMMARY

Department of Housing and Urban Development

Full-time equivalent of other positions	1	1	1
Average paid employment.....	1	1	1

SALARIES AND EXPENSES

(thousands of dollars)

	1973 <u>Actual</u>	1974 <u>Enacted</u>	1975 <u>Estimate</u>	Increase/ <u>Decrease</u>
Appropriation	\$1,217	\$1,492	\$1,740	\$ +248
Obligation	\$1,215	\$1,492	\$1,740	\$ +248

The Salaries and Expenses appropriation provides for the full cost of the Federal Cochairman and his immediate staff and contribution by the Federal Government of 50 percent of the administrative expenses of the Appalachian Regional Commission. The budget request for 1975 is for \$1,740,000, an increase of \$248,000 over the 1974 estimate as follows:

	1974	1975 Estimate	Increase/Decrease
1. Federal Cochairman and staff	\$ 277	\$ 290	\$ + 13
2. Commission Administrative Expenses (Federal 50% contribution)	<u>1,215</u>	<u>1,450</u>	<u>+235</u>
	\$1,492	\$1,740	\$ +248
1. <u>Federal Cochairman and Staff</u>			

The request of \$290,000 for the Federal Cochairman and staff provides for the total Federal staff of ten persons with their related travel, personnel benefits, and other costs. The Federal Cochairman's staff is paid entirely by the Federal Government and assists the Federal Cochairman in carrying out his responsibilities including handling relationships with other Federal agencies and with the Congress, and the financial management of the Appalachian Regional Development Program as delegated by the President. The amount requested is an increase of \$13,000 over that appropriated for FY 1974, required primarily for within grade advancements and 1973 pay increases. These increases have been absorbed in FY 1974.

2. Appalachian Regional Commission Administrative Expenses

While the expenses of the Federal Cochairman's immediate staff are paid solely by the Federal Government, the thirteen States of the Appalachian Region have responsibility beginning in FY 1968 for providing one-half the administrative expenses budget of the Appalachian Regional Commission.

The State shares are provided through contributions from each of the thirteen Appalachian States. In 1971, a review of the Commission's budget indicated that a number of the Commission positions providing technical assistance to the States or engaged in additional functions added by the Congress were funded entirely from Federal funds provided by the Section 302 and Section 202 programs. The States committed themselves to an increase in funding shares which would provide joint Federal-State support for a larger proportion of the total Commission staff. In 1973, the States provided an additional \$216 thousand. In 1975, all Commission costs except for processing Section 202 projects and administering the Section 302 program will be borne equally by the States. The table below reflects the changes in 1975 indicating that an increased contribution from Salaries and Expenses of \$235 thousand is more than offset by a decrease of \$140 thousand from the Section 302 Commission Technical Assistance program, and a \$155 thousand reduction in the Section 202 costs.

(thousands of dollars)

	1974 Enacted	1975 Request	Increase/ Decrease
1. Federal contribution from:			
(a) Salaries & Expenses	\$1,215	\$1,450	\$ +235
(b) Section 302 - Technical Assistance	140	0	-140
(c) Section 202 - Health (partial)	155	0	-155
Total Federal	\$1,510	\$1,450	\$ - 60
2. State contribution:	1,215	1,450	+235
Total	\$2,725	\$2,900	\$ +175

The Federal funds requested, when matched by State contributions, will provide a budget for 1975 totalling \$2,900 thousand, an increase of \$175 thousand over the 1974 budget as adjusted above. The increase consists of \$77 thousand in personnel compensation and benefits for within grade and other salary increases, \$46 thousand for cost increases in other objects and \$52 thousand non-recurring use of prior year balances in the trust fund.

During 1974 the Commission's permanent positions have been reduced by 5 positions to 110 in order to absorb recent pay increases. The 1975 budget proposes financing the same level of 110 permanent positions as in 1974.

(thousands of dollars)

	1974 Estimate	1974 Adjusted	1975 Estimate	Increase
Personnel compensation	\$1,570	\$1,821	\$1,890	\$ + 69
Personnel benefits	120	139	147	+ 8
Travel	105	130	135	+ 5
Rent & Communications	312	312	330	+ 18
Printing	107	107	120	+ 13
Other Services	125	125	135	+ 10
Consultant Services	100	100	100	--
Supplies	25	25	25	--
Equipment	18	18	18	--
Totals	\$2,482	\$2,777	\$2,900	\$ +123
Less prior year balance	-52	-52	--	+ 52
Appropriation	\$2,430	\$2,725	\$2,900	\$ +175

Commission Staff

The Commission staff is a non-Federal staff of 110 positions (down five from 1973) with grades and level of compensation generally paralleling the Federal Civil Service system. The staff is headed by an Executive Director appointed by the Federal Cochairman and the thirteen State members.

The Commission staff has responsibility for assisting the Commission and the States in carrying out Appalachian Regional Development programs. In performing these functions, the Commission is organized along six major functional areas with number of positions in 1975 as follows:

Organizational Unit	Total	Source of Funding		
		Jointly Funded	Section 302	Section 202
1. Executive Direction	22	22	--	--
Executive Director	12			
General Counsel	5			
Information & Publication	5			
2. Finance & Administration	21	18	3	--
Finance & Administration	16			
Management Data	5			
3. Program Implementation	22	19	1	2
4. Program Development	14	11	3	--
5. Human Resources	15	5	1	9
6. State and LDD Liaison	16	13	3	--
Totals for 1975	110	88	11	11
Comparable 1974 Funding	110	78	16	16
Change from 1974	0	+10	-5	-5

Functions of Commission Staff

The Commission staff is supervised by an Executive Director. The General Counsel is the chief legal advisor of the Commission and counsels the Federal Cochairman and the States as well. In addition to providing the legal review of projects and proposals submitted to the Commission, the office also serves as a principal advisor to the Federal Cochairman and the Commission on legislative matters. The information and publication functions involving relations with the mass media; publication of the Journal, research reports, and articles for technical publication; the dissemination of technical information; and personnel policy and operations are also directly responsible to the Executive Director.

Finance and Administration

The Finance and Administration Office provides procurement operations, and all supply, clerical, and support services. In addition, this staff provides financial and accounting activities for administrative operations, maintenance of States' allocations records, and financial review of local development district reports. This Office also provides for the development of management and operating data relating to the Commission's programs.

Program Implementation

The Program Implementation Division handles all of the Commission's continuing responsibilities for implementing the operating programs at the Federal, State, and local levels. This includes the analysis and processing of all projects submitted by the States for funding and the review of all State Plans. Generalists are responsible for the review of all project proposals submitted for a particular State for all Sections of the Act. Where necessary, advice and information is obtained from specialists in the various program development areas. Program specialists in the health, education, transportation, and other areas work with the analysts as a team to insure the necessary program review of projects. This system provides a review to assure that health, education, access roads, water and sewer and other projects are coordinated towards the full development of the local areas.

Program Development

This Division includes the activities of the specialists in transportation, housing, community development, environmental resources, and inter-governmental administration. This includes responsibility for planning and developing all

transportation, housing, and community facilities programs and working with agencies at all levels of government in the Region to improve the organization and financing of State and local government and such inter-governmental matters as implementation of A-95 clearance procedures, coordination with the Federal Regional Councils in Appalachia, etc. Responsibilities in the environment and resources area include the field of environmental aspects of pollution problems in Appalachia with particular emphasis upon occupational hazards associated with coal mining, the special health problems posed by water pollution in Central Appalachia, and health conditions caused by severe air pollution in some areas in northern Appalachia. It serves the Commission in water resource planning as well.

The Office also handles all of the basic responsibilities of the Commission with respect to the regional planning, research, and analysis required under the statute, evaluation of individual programs and of the overall program.

Human Resources

Under this office is included the responsibilities of the Commission in the fields of health, education, and child development. The health group is responsible for designing and administering programs for assisting the Region in meeting its needs for health facilities and services. It has responsibility for developing recommendations concerning the funding of health services projects and assisting the Commission in finding ways to improve the delivery of services in the Region. The Child Development group performs a similar function with respect to the Commission's Child Development programs. The Education group is responsible for assisting the States and the localities in planning approaches for the provision of school services on a multi-jurisdictional basis, for the development of early childhood education programs, career education, the augmentation of teacher supply and quality in the Region, and the development of occupational information guidelines and training programs in the Region.

State and LDD Liaison

The Commission has recently established an office of State and LDD liaison to ensure State and LDD officials "one-stop" service concerning the Appalachian program in their State. The liaison officers may also be called upon for assistance elsewhere in the Commission in program areas where they have special competence. The office also coordinates the program of financial assistance to Local Development Districts.

Relationship of Administrative to Program Costs

The Appalachian Regional Development Program is unique in that under our program appropriation are conducted a number of diverse programs involving several Federal agencies and Bureaus. In conducting these programs the agencies perform varying administrative functions for which they are reimbursed from the program appropriation.

The costs range from minimal amounts in the Section 214 program where for the most part the various agencies perform no new function and process and disburse the 214 grant as an adjunct to their basic grant, to the significant costs in programs such as the mine area restoration program where Commission financed projects constitute the bulk of work done. The following table shows the program and Federal administrative costs (including Commission technical assistance staff) for the entire program. Total Federal administrative and other staff costs of \$4,893 thousand is 1.67 percent of the program costs. The 13 State members will also contribute \$1,450 thousand toward the Commission's expenses in 1975. Even with these costs the percentage of administrative cost to program funds remains at only slightly over 2 percent.

(thousands of dollars)

<u>Activity</u>	<u>Program Costs</u>	<u>Fed. Admin. Costs</u>	<u>Total Oblig.</u>
201 - Highways	\$159,052	\$ 948	\$160,000
Area Development Programs:			
202 - Health	-	1,252	-
205 - Mine Area Restoration	-	520	-
211 - Vocational Education	-	53	-
214 - Supplemental Grants	-	100	-
Sub-Total, Area Development	\$123,075	\$1,925	\$125,000
302 - LDD, Research and Demonstration	8,250	250	8,500
207 - Housing Fund	<u>2,097</u>	<u>30</u>	<u>2,127</u>
Sub-Total	\$292,474	\$3,153	\$295,627
Salaries & Expenses	<u>-</u>	<u>1,740</u>	<u>1,740</u>
TOTAL FEDERAL COSTS	\$292,474	\$4,893	\$297,367

Office of States' Regional Representative

The 13 State members maintain this Office to represent them in the day-to-day operations of the Commission. The salaries and all other expenses of the staff of five people are paid entirely by the States, thus no funds are requested in the Federal budget.

APPALACHIAN REGIONAL COMMISSION
Fiscal Year 1975

OFFICE OF FEDERAL COCHAIRMAN	
	\$38,000
1 GR 18	36,000
1 GR 16	36,000
3 GR 15	93,267
1 GR 10	15,609
2 GR 8	23,898
1 GR 7	10,965
Funded entirely from Federal funds	

OFFICE OF STATES' REGIONAL REPRESENTATIVE	
	\$38,000
1 GR 16	36,000
1 GR 15	28,263
1 GR 10	14,717
1 GR 7	9,969
Funded entirely from States' funds	

EXECUTIVE DIRECTOR	
1 GR 18	\$36,000
1 GR 17	36,000
1 GR 15	28,263
1 GR 14	25,055
1 GR 11	16,138
3 GR 9	39,343
2 GR 8	25,370
2 GR 4	14,876

OFFICE OF GENERAL COUNSEL	
1 GR 17	\$36,000
1 GR 15	32,973
1 GR 13	22,744
1 GR 8	13,237
1 GR 7	10,965

PUBLICATIONS AND INFORMATION	
2 GR 13	\$44,110
1 GR 9	12,573
1 GR 8	13,973
1 GR 7	11,629

FINANCE AND ADMINISTRATION		PROGRAM IMPLEMENTATION		PROGRAM DEVELOPMENT		STATE AND LED LIAISON		HUMAN RESOURCES	
1 GR 16	\$33,899	2 GR 16	\$69,899	1 GR 16	\$36,000	1 GR 16	\$32,806	1 GR 16	\$32,806
2 GR 14	54,958	1 GR 15	32,031	8 GR 15	255,306	3 GR 15	97,035	1 GR 15	28,263
2 GR 13	44,110	2 GR 14	50,918	1 GR 14	23,287	2 GR 14	54,955	1 GR 14	26,671
2 GR 12	36,743	5 GR 13	105,452	1 GR 11	16,138	4 GR 13	88,909	4 GR 13	87,531
4 GR 10	60,206	2 GR 12	37,909	1 GR 9	15,009	2 GR 11	30,326	2 GR 12	40,324
2 GR 9	24,334	2 GR 11	30,320	2 GR 8	25,738	1 GR 8	11,397	2 GR 11	29,831
1 GR 8	12,501	1 GR 10	15,163			1 GR 7	10,301	1 GR 9	14,197
4 GR 7	43,196	1 GR 9	12,573			2 GR 6	17,954	2 GR 7	21,266
3 GR 5	24,701	2 GR 7	21,266					1 GR 5	8,055
		2 GR 6	18,552						
		2 GR 5	16,646						

SALARIES AND EXPENSES

Mr. EVINS. You are requesting an increase of \$248,000 over last year for "Salaries and expenses," is that correct?

Mr. WHITEHEAD. Yes, sir.

HIGHWAY PROGRAM STATUS

Mr. EVINS. The highway program shows an increase from \$155 million to \$160 million. Tell us again in a few words how far along you are toward completion of your main highways as against the corridor connections.

Mr. WHITEHEAD. As of December 31, 1973, we had construction completed on 881.9 miles of corridor, with construction completed or underway, on a total of 1,289 miles. We had some 2,000 miles committed, that is, mileage either under design, right-of-way acquisition, construction, or completed. That was as of December 31, 1973.

Mr. EVINS. It is proposed all highways be funded on the 70-percent basis?

Mr. WHITEHEAD. Yes, sir. When the Federal aid for noninterstate highways was increased by the Congress to 70 percent, we wanted to make sure that our States kept working on the Appalachian portion of their highway system. We didn't want the Appalachian corridors to be discriminated against.

STATUS OF CORRIDOR COMPLETION

Mr. EVINS. How much of the corridor system lacks completion from the original authorized amount?

Mr. WHITEHEAD. The current authorized amount for the corridor is 2,700 miles. By June of 1975 we expect to have completed 1,200 of those miles and have 1,500 left to construct, but I hasten to add that of that 2,700 miles, 2,600 miles will be under some stage of development. That is, either in location or design studies, right-of-way acquisition, engineering, or in construction; 2,600 of the 2,700 miles will be committed.

Mr. EVINS. How does your commission followup on a plan by a State once they have announced the program for development of a corridor system? I know an instance in which they approved a 15-mile section and completed 5 miles on the south; 5 miles on the north, and they left the 5 miles in the center incomplete, which is the most rugged section. How do you get them to finish that 5 miles?

Mr. WHITEHEAD. We work with the State representative and their highway department in developing a plan and agreeing on priorities for construction. In the beginning the priorities of corridor construction was to work on the worst sections of the highway system first. Most recently we have tried to advance and modify that priority system by working out in detail, segment by segment, and construction activity by construction activity, within each State, priority classifications.

Mr. EVINS. The work accomplished has been very fine but there is considerable talk about the failure to complete the plan as approved.

AREA DEVELOPMENT BUDGET REQUESTS

Turning to page 4 of your statement, \$43 million was appropriated for health demonstrations in fiscal year 1974 and you are requesting \$45 million in 1975; is that correct?

Mr. WHITEHEAD. Yes, sir.

Mr. EVINS. For mine restoration, \$4 million was appropriated in the current year and you are asking for \$5.5 million in fiscal year 1975; vocational education, \$25 million was appropriated in fiscal year 1974, and \$28.5 million is requested in fiscal year 1975; and \$34 million was appropriated in fiscal year 1974 for supplemental grants.

Mr. WHITEHEAD. Those figures you have read for 1975 are our estimates based upon the individual State reports to us of their need for fiscal year 1975. The request for area development is for \$125 million in total.

Mr. EVINS. In addition to the requests for the highway program and the salaries and expenses of the Commission the balance of your program will be funded by the \$125 million request for area development; is that correct?

Mr. WHITEHEAD. The nonhighway authorization would break down into three parts. The area development program, which includes those four—

Mr. EVINS. Area development consists of these four programs.

Mr. WHITEHEAD. Yes, sir. In addition to that, our housing program funded under section 207 of our act, and the support for local development districts, research and demonstrations funded under section 302 of our act would both be funded separately.

Mr. EVINS. Area development will comprise the former health demonstration, mine area restoration, vocational education and supplemental grants?

Mr. WHITEHEAD. Exactly.

Mr. EVINS. But all of these projects will be funded only if suitable applications are filed by the respective States?

AREA DEVELOPMENT PROGRAMS KEY ELEMENTS

Mr. WHITEHEAD. That is correct, Mr. Chairman. I would like to stress several key elements to the proposed area development program.

First there is no change in the procedure whereby individual project applications are submitted through the State member.

Second, as before, all projects require Commission approval, including the approval of the Federal Cochairman.

Third, there is no change in the type of projects eligible for assistance. As before, projects must meet the requirements of the Appalachian Regional Commission Act and the Commission adopted criteria relating to the health programs, section 202; mine area programs, section 205; vocational programs, section 211, and the supplemental program, section 214.

Fourth, the program will operate under a system where the States will receive a single allocation of funds against which they can prepare plans and submit eligible projects on the part of each State received or a separate allocation for each program.

Mr. EVINS. The statutory sections and provisions are retained and

continued, but you are asking for a lump sum to provide for more flexibility.

Mr. WHITEHEAD. Yes, sir.

Mr. EVINS. This approach will provide more flexibility to the States in determining the type of applications they want to approve.

Mr. WHITEHEAD. Exactly, yes. The practice has already developed that, some states have tended to emphasize health facilities, while others may emphasize vocational facilities. It is not a matter of financing one type of project to the exclusion of others, but rather a matter of relating emphasis.

This idea of the single allocation for these four programs grows out of our experience based on working with this program since 1965.

PUBLIC WORKS COMMITTEE CONCURRENCE

Mr. EVINS. We will insert in the record a copy of a letter addressed to you from Congressman Robert E. Jones, Chairman of the Legislative Public Works Subcommittee with jurisdiction over the Appalachian Program.

[The information follows:]

COMMITTEE ON PUBLIC WORKS,
CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
Washington, D.C., April 3, 1974.

HON. DONALD WHITEHEAD,
*Federal Cochairman,
Appalachian Regional Commission,
Washington, D.C.*

DEAR MR. WHITEHEAD. This is in response to your letter of February 4, 1974, concerning the status of authorizations and appropriations for the Appalachian regional development program.

As your letter correctly pointed out, it was the intention of the Committee on Public Works that the authorization for all nonhighway programs was made in block, rather than by individual programs as in the past, so that the Commission could have maximum flexibility in determining priorities for the investment of funds. The inclusion in our report of estimates for major program areas was largely for the information of the Senate in its deliberations on the bill, and was not intended as a rigid restriction on appropriations for individual programs.

As I understand your proposal you intend to seek funds under a single budget item for four nonhighway programs and then to allocate those funds to each State as a single allocation. Each State could then utilize this allocation in such a way as to obtain the combination of projects among the four programs which best matched the State determination of need. These four programs include section 202, health and child development; section 205, mine area restoration; section 211, vocational education facilities; and section 214, supplemental grants. I understand that your proposal is not strictly a block grant program, since individual projects submitted by the States would still have to receive Commission approval by the act and each type of project would be bound by the requirements of the authorizing section of the act as further defined in the code adopted by the Commission. This is a block allocation system giving the State the flexibility to determine the relative amount of each program type which will reflect the investment priorities for that State.

I believe this new approach is completely consistent with the committee's intent in the 1971 amendments and we commend you and the Commission for the initiation of this concept. We will be very interested at a later date in receiving from you an evaluation of its effect.

With respect to the other item in your letter, you state that the 1974-75 biennium appropriations for the section 302 program of research, demonstration, and the support of local development districts could, if enacted as requested, reach a total of \$16 million, while the Senate Public Works Committee Rept. No.

92-29 indicated that an estimated \$13 million for this program was included in the 1974-75 authorization of \$294 million for the programs other than highways. As before, I note that estimates in S. Rept. 92-29 for individual programs was for the information of the Senate and not to be considered as a rigid restriction on authorizations.

Accordingly, this committee considers your appropriation request for the section 302 program as consistent with the authorizations provided for the fiscal years 1974-75 in Public Law 92-65.

Sincerely,

ROBERT E. JONES.

SUPPLEMENTAL GRANT PROGRAM ENHANCED

Mr. EVINS. Do you think the supplemental grant program will be improved by this new approach?

Mr. WHITEHEAD. I think its importance to the States will be enhanced, Mr. Chairman, for two reasons:

First, as the figures on page 5 indicate, our estimate on the basis of discussions with the States indicate an increasing need on the part of the States for supplemental grants.

Second, and just as importantly as the increase in dollars allocated to that purpose, we see a need for increased flexibility with the States, as certain other Federal programs are terminated or have funds impounded.

Under that situation, we would like to see our States in a position to keep the program moving ahead uninterruptedly by utilizing the authority given the commission in 1971 to fund the so-called first dollar supplemental grant programing.

Mr. EVINS. I was interested in your statement on page 9 of your statement in which you say "although the Federal contribution may be as high as 80 percent, past experience has been that the total Federal contribution has been about 52 percent and Appalachian section 214 funds have comprised 17.7 percent of total program costs."

Mr. EVINS. How much could that percentage increase—up to 80 percent?

Mr. WHITEHEAD. Yes, sir. We can increase the Federal funding up to a total of 80 percent.

Mr. EVINS. If the State wants a project very badly and if the public interest demands it, and the commission thinks it is viable, then you could go up to 80 percent to make the project acceptable?

Mr. WHITEHEAD. Yes, sir, Mr. Chairman. Notwithstanding the fact that Federal funds have been impounded for the basic programs which our section 214 is supplementing. We have worked this out with the knowledge and consent of my colleagues at the Office of Management and Budget to permit the Appalachian region, which we feel has a special need, to continue to move along to meet those needs uninterruptedly. That is, there may be a national interest that would suggest one thing, but the regional need persists. All this, of course, is conditioned upon the individual community's ability to pay. If we feel that community—

Mr. EVINS. Of the funds, 17.5 percent have gone into supplemental grant projects?

Mr. WHITEHEAD. That is the percentage which the supplemental grant program has contributed. The total Federal contributions, including funds from other agencies, has been slightly over 50 percent.

Mr. EVINS. The supplemental grant program has helped make this a viable program and has made the projects acceptable. Certain communities who have a low tax base and are unable to raise the funds can obtain a supplemental grant. This is the one area I was interested in knowing would be retained and continued. You give us this assurance time and time again.

LOCAL DEVELOPMENT DISTRICT SUPPORT

During fiscal year 1975, the Commission will provide assistance to all 69 local development districts at a cost of \$4 million and will provide for research and technical assistance totaling \$2.5 million. You have 69 local development districts throughout the area?

Mr. WHITEHEAD. Yes, we do.

Mr. EVINS. Is that total increasing?

Mr. WHITEHEAD. This now completely covers the region with multi-county planning and development districts. We achieved that goal last year for the first time. We are still funding some of the newer development districts in their first year.

Mr. EVINS. I would think you would have that rather stabilized by now.

Mr. WHITEHEAD. Yes; we now have the entire region covered by development districts.

Mr. EVINS. How much on an average are you providing to a local development district?

Mr. WHITEHEAD. The figures vary considerably but we are figuring something in the neighborhood of \$70,000 per development district.

Mr. EVINS. That is \$70,000 a year.

Mr. WHITEHEAD. Yes, sir. This represents three-quarters of the administrative costs—

Mr. EVINS. If you had a technical laboratory in each of the 13 States, you would have to fund 13?

Mr. WHITEHEAD. We don't want to do that.

RESEARCH AND TECHNICAL ASSISTANCE

Mr. EVINS. What is the nature of the \$2.5 million requested for research and technical assistance?

Mr. WHITEHEAD. We have an extensive program in research and technical assistance. I can give you some examples.

Mr. EVINS. Is that work done here in Washington or is it done in the field?

Mr. WHITEHEAD. It is of two types, Mr. Chairman. State research is funded by the commission in the region and that is designed to assist the State in determining what its specific barriers to development are. We also have so-called commission research which tackles a study of region-wide problems and that is generally funded by contract from Washington.

Mr. EVINS. You have made great strides in halting the out migration in the area.

Could you show Mr. Myers the slide that depicts that fact?

REGIONAL OUT-MIGRATION HALTED

Mr. WHITEHEAD. This represents quite a dramatic reversal in trends, Congressman Myers.

This shows the region as a whole, a population of a little better than 18 million. Measuring migration as a percentage of the region's population, in the decade of the fifties, from 1950 to 1960, it is a 12.5 percent out-migration. That many people moved out. Of course, Appalachia may be a fountain of out migration through most of its recent history. In the 1960's the out migration rate cut in half, but for the first time in 50 years we see a complete reversal of the migration trend. Now more people are moving in and expressed as a percentage of the same figure, between 1970 and 1972, we measure a trend for the decade of 4.3 percent in migration.

Mr. EVINS. The program is working; the intent of Congress to halt the out-migration and upgrade the area is being achieved. They are building highways and trade schools in these mountain areas.

Mr. MYERS. Would you yield, Mr. Chairman, for a question since you have this particular chart out? Is the projection of reversing the out-migration only projected or do you have any special census?

Mr. WHITEHEAD. The chart shows two different colors of blue. The dark blue is the hard data. Those are people we can actually count from 1970 to 1972. The light blue is the projection assuming that trend continues throughout this decade.

HOUSING FUND BALANCES

Mr. EVINS. You indicate that you are requesting no funds for housing in 1975. What was your unobligated balance in the fund?

Mr. WHITEHEAD. We carried over \$3.9 million into 1974, Mr. Chairman.

Mr. EVINS. Housing, particularly rural housing, is a critical concern throughout the country. We are not making much progress on rural housing.

Mr. WHITEHEAD. We are experiencing a severe problem in this program because of the moratorium on HUD programs which the ARC housing fund was designed to assist. That is sections 235, 236 of the National Housing Act.

As you know, the administration's impoundment of funds under that program has been challenged in court by the Commonwealth of Pennsylvania, but until that matter is determined, one way or the other, the termination in effect of the HUD program has meant a necessary slow-down in our funds which were primarily designed to help sponsors plan for such housing development.

AUTHORITY FOR PROGRAM CHANGES

Mr. EVINS. Under what authority are you making these proposed changes as we discussed earlier, the Public Works Legislative Committee has approved this new approach, is that correct?

Mr. WHITEHEAD. Yes, sir.

Mr. EVINS. I assume the various Appalachian States also approve?

Mr. WHITEHEAD. Yes. It has their endorsement and we hope thereby, Mr. Chairman, among other things, to demonstrate the truly regional character of the commission. As you know, some critics have stated

that they question the regional character of our program and we hope by this device, among other things, to rebut that contention.

We would like to demonstrate that the commission, as an institutional concept, represents a potential compromise between alternative ways to handle Federal programs and we would like to demonstrate the commission is a unique Federal-State joint enterprise which might be permitted this kind of flexible discretion.

Mr. EVINS. Under this proposal funding would be channeled into a broad category, but the States would necessarily be limited to the four programs you have mentioned here. There could be one for sewage, libraries, airports and other specified projects?

Mr. WHITEHEAD. Yes, sir; those you mention are among the types of projects that can be assisted through the supplemental grants.

Mr. EVINS. They are not limited to these programs?

Mr. WHITEHEAD. That is right. It could more exactly reflect local differences. For instance, if Pennsylvania is having a particular problem with subsidence and wishes and feels that that problem has a greater priority than supporting some of its health, education or other projects, this would permit them to go ahead and put a larger portion of its money into mine area subsidence projects. But that kind of program is not as important, perhaps, in other parts of the region and we would like to permit our States to recognize that in the number and type of projects they bring forth.

FORMULA FOR ALLOCATING FUNDS

Mr. EVINS. Will you explain to the committee the formula to be used in distributing the various allocation of \$82.4 million to the States?

Mr. WHITEHEAD. Explain the allocation procedure?

Mr. EVINS. The formula. How did you arrive at this figure?

Mr. WHITEHEAD. First we computed what each State would have received under current procedures in fiscal 1975, assuming the same level of funding as in 1974 and we took 80 percent of that figure. That gave us the base allocation of \$82.4 million.

To this was added an analysis of the breakdown of northern, central and southern Appalachia in accordance with what we call our section 214 formula. It is the distribution formula which has become most generally accepted among the various four or five different program formulae the commission has developed over the past 8 or 9 years.

We computed on that basis how much money over the base allocation ought to be permitted for central Appalachia, northern Appalachia, and southern Appalachia. Once we arrived at that figure, we increased the allocation going to central Appalachia.

Mr. EVINS. You must have a very harmonious relationship between the 13 Governors.

What I am trying to arrive at is how you get these 13 Governors to say, "We will give so much to one State, so much to another."

Mr. WHITEHEAD. I think the States recognize the commission is coming to a critical point in its evolution. They are looking forward to next year when the commission and its programs will be judged by the Congress and the administration and I think they were anxious to give a convincing demonstration of the partnership, the true partnership spirit evidenced by the commission—

Mr. EVINS. How did you arrive at the \$38.6 million for the subregion areas?

Mr. WHITEHEAD. We took our total assessment of overall need and our ability to utilize funds in accommodating that need and arrived at an amount of \$125 million. That is what we resolved to come and request from your committee. When we determined, through the process I have described, the base figure for each State individually and the 13 States collectively, we subtracted that base amount of \$82.4 million from the \$125. After providing \$2 million for a special highlands program and \$2 million for costs of other agencies in assisting in the program's administration we had \$38 million which we wished to divide between the three subregions.

COMPOSITION OF ALLOCATION FORMULA

Mr. EVINS. You make those allocations on the basis of area and population, or do you make it on the basis of need?

Mr. WHITEHEAD. We have four factors in the formula. Size of area, number of population, a factor for equality, and most importantly per capita income judged inversely. Even on that basis, which favors those parts that have the greatest need as measured by low per capita income, we made an additional increment for central Appalachia, Mr. Chairman. That is, once we had made a theoretical division of the money between the three subregions, we gave central Appalachia an additional allocation.

This was determined by how much central Appalachia's per capita income fell below the regional average. It was 44 percent below the regional average measured on that criteria, so we increased the funds allocated to central Appalachia by that much. I can submit for the record, if you wish, the dollar amounts entailed in all those computations.

[The information follows:]

BASES OF ALLOCATION FORMULA

1. Weights of Basic Section 214 Formula

A. Equality (13 parts)	14%
B. Proportion of land area	14%
C. Proportion of population	28%
D. Percapita income (inversely)	44%
	<u>100%</u>

2. State Allocation Percentage Shares by Subregion

	<u>Northern</u>	<u>Central</u>	<u>Southern</u>
A. Section 214 Formula	40.33%	16.08%	43.59%
B. Adjusted Formula	<u>36.93%</u>	<u>23.16%</u>	<u>39.91%</u>
C. State Percentage Share of Subregion:			
Alabama			21.88
Georgia			15.53
Kentucky		46.70	
Maryland	10.64		
Mississippi			14.04
New York	16.29		
North Carolina			15.80
Ohio	17.93		
Pennsylvania	39.45		
South Carolina			12.94
Tennessee		19.16	12.49
Virginia		18.41	7.32
West Virginia	15.69	15.73	
TOTALS	100.00%	100.00%	100.00%

3. Estimated 1975 Allocations by State (millions of dollars)

<u>State</u>	<u>Base Allocation</u>	<u>Subregional Allocations</u>			<u>Total Allocation</u>
		<u>Northern</u>	<u>Central</u>	<u>Southern</u>	
Alabama	\$ 7,622.0	\$	\$	\$ 3,370.6	\$ 10,992.6
Georgia	5,710.3			2,392.4	8,102.7
Kentucky	6,361.3		4,175.0		10,536.3
Maryland	3,617.4	1,516.7			5,134.1
Mississippi	4,894.6			2,162.9	7,057.5
New York	5,743.3	2,322.2			8,065.5
North Carolina	6,641.4			2,434.0	9,075.4
Ohio	6,097.6	2,555.9			8,653.5
Pennsylvania	10,514.2	5,623.6			16,137.8
South Carolina	6,155.3			1,993.4	8,148.7
Tennessee	7,564.3		1,712.9	1,924.1	11,201.3
Virginia	4,095.3		1,645.9	1,127.6	6,868.8
West Virginia	7,383.0	2,236.6	1,406.2		11,025.8
Subtotal	\$ 82,400.0	\$ 14,255.0	\$ 8,940.0	\$ 15,405.0	\$ 121,000.0
Highlands Demonstration					2,000.0
Administrative Costs					2,000.0
TOTAL			\$38,600.0		\$ 125,000.0

HEALTH CONSTRUCTION NEEDS

Mr. EVINS. We note that the appropriation for health demonstration projects decreased from \$48 million in 1973 to \$43 million in 1974. Do you believe this downward trend will continue?

Mr. WHITEHEAD. No. I think the basic cause of the decrease has been a lessened emphasis in construction. That is, in the early days, the big problem for the Commission was to help provide to the region the buildings, the facilities that it lacks in comparison to the rest of the country. Those are the big cost projects.

The highest priority needs in that category I think have pretty well been met by the Commission. Now we are shifting gears and going more into service or operating projects which are less costly. For instance, primary health care, which is becoming a major thrust of the Commission's health program, is really modest in cost as compared to what it takes to build a modern hospital.

VOCATIONAL EDUCATION FACILITIES

Mr. EVINS. What accounts for the increase in State and local contributions for vocational educational facilities from 32 percent in 1972 to 48 percent in 1973?

Mr. WHITEHEAD. I think that the basic difference, Mr. Chairman, would be resulting from the fact that the communities with the greatest needs were funded in the earliest years.

By the Commission's analysis of ability to pay, the communities that are receiving such support in later years have a little bit greater ability to support the project and contribute toward it than was true of the communities requesting such assistance in the early days of the Commission.

Mr. EVINS. The committee notes on page 5 of your justification that you plan a study to measure the impact of the ARC-funded educational facilities in 28 selected areas.

How were these areas selected and when is it to be completed?

Mr. WHITEHEAD. The areas were selected in consultation with the States and some of the development districts. Specifically, can you add to that, Mr. Lerch?

Mr. LERCH. Yes, that is correct, that is how they were selected. The field work is to be completed in late April, the last part of this month.

Mr. EVINS. You want to have a study of the accomplishments of the program, have the facts available, that is worthwhile.

Mr. WHITEHEAD. One fact I might add for your consideration is what the people in North Carolina have told me about the importance of a technical school that the Commission has assisted there. They tell us that 14 of 17 new industries moving into the Asheville area, have utilized the vocational training facilities at the school that we helped fund there to train their new employees and, in addition, most of those companies have indicated that an important factor in their determination to locate there was the existence of that school and the quality training that it provided.

HIGHWAY CONSTRUCTION

Mr. EVINS. Returning to the highway program, Are all the projects in the future to be funded on the 70-percent basis?

Mr. WHITEHEAD. That is for the highway program and if a State chooses.

Mr. EVINS. At the top of page 12 you indicate that the highway construction activity cannot be completed with funds available through 1978.

Mr. WHITEHEAD. That is correct.

Mr. EVINS. When do you feel the system can be completed?

Mr. WHITEHEAD. One and a half billion dollars will be required to complete the system, Mr. Chairman. Whether or not this Commission is the mechanism for doing that job or there should be some alternative method is up to the Congress to decide.

I would point out that with 2,600 miles committed, the Appalachian States have obligated themselves to complete that many miles whether or not Federal funds are available. But the final determination of your question is going to be up to the Congress as it considers legislation dealing with Appalachia in the future.

ADMINISTRATIVE EXPENSE

Mr. EVINS. Why is it necessary to increase the Commission's administrative expenses by \$235,000 in 1975?

Mr. WHITEHEAD. I really think we have a net decrease to show, because there are offsetting figures in other programs.

For instance, Mr. Chairman, we are shifting from 100-percent federally funded to joint funding by the States and the Federal Government, some 10 positions, which will somewhat offset the \$235,000 increase you show there. As a matter of fact, that is offset by some \$295,000 of relief in other programs. \$140,000 from shifting five persons—

Mr. EVINS. What is the total number of personnel assigned to the headquarters of the Commission?

Mr. WHITEHEAD. 110 for Commission staff. That is down five from what it was.

Mr. EVINS. How many in the field?

I believe we provided funds a few years ago to have one or two additional assistants assigned to the Governor.

Mr. WHITEHEAD. We have funded a State management assistance program on a temporary basis, which did give some additional personnel to Governors in their offices to help manage and implement the Appalachian program. But that is phasing out. We think we have supported the greatest part of that need.

Mr. EVINS. 110 in the headquarters office?

Mr. WHITEHEAD. Yes, sir. That is the Commission's staff, jointly supported by the Federal Government and the States. The Federal cochairman has an authorized staff of 10, including himself.

TRAVEL COSTS

Mr. EVINS. The estimate for travel in the current year as shown in the fiscal year 1974 budget was \$95,000. The fiscal year 1975 budget indicates a total of \$130,000 will be spent in 1974. Explain this discrepancy.

Mr. WHITEHEAD. We traveled more than we thought we would have to.

Mr. EVINS. You have a big territory to cover, a big area.

Mr. WHITEHEAD. Yes, sir, we do.

Mr. Chairman, I will say on that score that we have determined that one of the most important ingredients of making our program work is to work face-to-face with people and get out there in the region. We have instituted a greater emphasis to get our staff out working face-to-face with some of the people on the local area level.

If that explains the increase in travel expenses, I am not defensive about it.

Mr. EVINS. I think that would be justified. In that type of program you have to see the projects, the area, meet the people, you have to understand their needs.

Mr. WHITEHEAD. Yes, sir.

Mr. EVINS. Provide for the record a table showing, by programs, your unobligated balances as of June 30, 1973 and March 31, 1974.

Mr. WHITEHEAD. Yes, sir.

[The information follows:]

APPALACHIAN NON-HIGHWAY PROGRAMS

Status of Obligations

(thousands of dollars)

	Unoblig. Balances 6/30/73	Funds Available 1974	Est. Oblig. thru March 31	Unoblig. Balance March 31	Pending Applications
202 Health Demonstration	\$ 7,872	\$ 50,872	\$14,324	\$ 36,548	\$24,033
205 Mine Area Restoration					
Regular	985	6,438	5,132 ^{1/}	1,306	7,674
Agnes	9,335	10,388	9,913 ^{1/}	475	--
Recovery of prior year obligations	--	-1,951	-1,951	--	--
Subtotal	\$10,320	\$ 14,875	\$13,094	\$ 1,781	\$ 7,674
207 - Housing Fund					
Regular	2,507	2,280	539	1,741	2,499
Agnes	1,412	1,412	10	1,402	1,402
Subtotal	\$ 3,919	\$ 3,692 ^{1/}	\$ 549	\$ 3,143	\$ 3,901
211 - Vocational Education	\$ 11	\$ 25,011	\$ 663	\$ 24,348	\$14,271
214 - Supplemental Grants					
Regular	1,296	35,296	3,407	31,889	19,973
Airport Safety	2,730	2,730	55	2,675	485
Subtotal	\$ 4,026	\$ 38,026	\$ 3,462	\$ 34,564	\$20,458
302 - Research, Demon. & LDD					
Regular	1,923	9,423	4,002	5,421	3,644
Agnes	1,087	1,087	779	308	--
Subtotal	\$ 3,010	\$ 10,510	\$ 4,781	\$ 5,729	\$ 3,644
Other Miscellaneous Programs	\$ 972 ^{3/}	\$ 417	\$ 62	\$ 355	\$ --
GRAND TOTAL	\$30,130	\$143,403	\$36,935	\$106,468	\$73,981

^{1/} Reflects commitments made by ARC.^{2/} An additional \$1,927 was estimated to be carried forward to FY 1975.^{3/} An amount of \$555 transferred in 1974 to Section 205 program.

Mr. EVINS. We think you have made significant progress. I think the charts showing the turnabout in the outmigration trend in population are very interesting. Any questions?

STATE PORTIONS INCLUDED IN APPALACHIA

Mr. MYERS. Mr. Whitehead and I have previously discussed some of the programs. I have one or two questions.

Why is it that you only include parts of 13 States?

It seems to me that some of the States would have similar problems throughout the State? How does that happen?

Mr. WHITEHEAD. That was a determination of the Congress which actually enumerated county-by-county what the Appalachian region would consist of.

I think that the basis for that determination was an analysis of the terrain, the demographics and the economic situation.

It is true that the Congress came up with a definition of Appalachia which may be at variance with definitions of sociologists or definition by the average person who tends to think of Appalachia as that area we would think of as Central Appalachia. But the Congress was trying to link together areas of States having common problems.

Now there are portions of our States, I suppose, that look somewhat like Appalachia and are not included.

It is always a question of opinion whether or not they should be. From time to time bills have been introduced in the Congress to enlarge the region by adding specific counties. Generally such legislation has not received support in the Public Works Committees on the grounds that it was not a decision to be made piece-by-piece in a fragmented fashion, but something to be reviewed at one of the turning points of the development of the Commission and its program.

I would expect it would be a question which would be reviewed next year when our legislative authority expires and Congress determines what the future of the Commission will be.

One of the real issues for debate will be whether or not whole States ought to be included. In the last analysis, that issue turns upon whether you view the Commission as a means to provide special catchup financial assistance to a needy part of the country or, alternatively, whether you look upon the Commission as a unique mechanism joining Federal and State interests together in a way that they cannot work under the typical Federal grant-in-aid program. If you look at it in this latter way, you might find this mechanism could make a contribution in other areas of the country.

Mr. MYERS. I would like to get Indiana included in your program. Indiana is rated 50th in the 50 States in getting our share of the tax dollar back. So we are an area that really needs assistance.

If you have anything to say about it, think about Indiana. I am sure Wisconsin would like to get in on this, too.

APPALACHIAN HIGHWAYS RELATED TO INTERSTATE

I have one question about the highway program. You do not have anything to do with the Interstate System? This supplements the existing highway system; is that correct?

Mr. WHITEHEAD. Exactly that, the Appalachian corridors are designed to do exactly that, supplement the Interstate System. The Interstate System did not bypass Appalachia. It links up large popu-

lation centers with each other. The Appalachian highway corridor system, on the contrary, is designed not just to accommodate present traffic. Not all could be justified on the basis of present traffic needs.

Mr. MYERS. Are your highways limited access or is that up to the States to make that decision?

Mr. WHITEHEAD. They are relatively limited access, designed under Federal Highway Administration standards, but less stringent than the Interstate System.

Mr. MYERS. What kind of designation do they carry?

Mr. WHITEHEAD. U.S. primary. I might add, they are not designed to accommodate present traffic, but to cause development, to open up an area which has been relatively inaccessible before.

Mr. MYERS. Do you have any figures comparing the number of miles constructed in the Appalachian area to other sections of the country, total miles constructed in the last 10 years in those States?

Mr. WHITEHEAD. Not with me.

Mr. MYERS. Could you supply that data to the committee?

Mr. WHITEHEAD. Yes, sir.

LOCAL DEVELOPMENT DISTRICTS FUNCTIONS

Mr. MYERS. One last question.

You have an item of \$8.5 million for research, demonstrations, and development districts. What is a development district, and what kind of programs are carried out in these districts?

Mr. WHITEHEAD. A local development district is a multi-county planning and development agency. The Economic Development Administration calls them economic development districts. They may also help support them, as does HUD, and in some instances OEO.

The basic rationale for the development district is to permit economies of scale for small, isolated, particularly rural counties who need this kind of assistance in order to join together to plan for what their common interests dictate with respect to common problems. In effect, to provide for county commissioners and other officials a little bit of a professional planning staff in order to permit them to compete equitably for Federal and State support with larger, more affluent cities which can more readily afford professional and technical assistance, and also to work on a problem that has plagued development not only in Appalachia but in many other parts of the country; that is, a system of county demarcation which has erected arbitrary political boundaries to prevent the common purposes on full attack on common problems.

In Appalachia, as in much of the United States, we have a county structure under which each county is trying to maintain separate and duplicative judicial or law enforcement systems and, rather than suggest that counties be consolidated and amalgamated, an idea which I think would find fierce resistance, the local development district does permit the grouping together of a group of counties to work on common problems cooperatively.

Mr. EVINS. Some of the funds are provided by the counties, some of the funds are provided by the States?

Mr. WHITEHEAD. Yes.

Mr. EVINS. And the Appalachian Region Commission makes grants to these districts once they are established?

Mr. WHITEHEAD. That is right.

CONTRAST WITH AREA DEVELOPMENT DISTRICTS

Mr. MYERS. How do these local districts contrast to area development districts?

Mr. WHITEHEAD. They are the same thing. Many States use the term area development districts.

Mr. MYERS. You have different funds though? You have funds also for area development?

Mr. WHITEHEAD. That is a name we have given. They are not two different types.

Mr. MYERS. But they are separate items in the budget?

Mr. WHITEHEAD. Yes, they are.

Now, there are some districts that call themselves area development districts, others call themselves local development districts. That is why I answered your question the way I did.

Mr. MYERS. Why do you separate them then in your budget? Please provide a statement explaining the difference between the two for the record.

Mr. WHITEHEAD. Very well.

The area development program which is noted in the budget is merely a device by which we can provide a single allocation to a State for the funding of four programs that were previously separately provided for. It has nothing to do with the funding supporting the development districts.

Mr. MYERS. Those can be local matching funds to get other Federal funds then, they can be used for that purpose?

Mr. WHITEHEAD. Yes—now I am confusing you, somehow.

The and a development program is something that has nothing to do with our support of development districts.

I was we had come up with different terminology.

Mr. MYERS. Maybe you can clarify it for the record so it can be better understood.

[The information follows:]

DISTINCTION BETWEEN LOCAL DEVELOPMENT DISTRICTS AND "AREA DEVELOPMENT"

When the Commission proposed to budget for one combined activity consolidating budget estimates previously shown under four separate activity headings it was necessary to provide a title or name for this consolidated activity. It was decided that we should not reuse the word "regional" but instead use the phrase "area development program" to describe the functions. The 1975 budget for this item is \$125 million.

Specifically excluded from this single allocation program were the Appalachian Housing fund program, and the program of research, demonstration, and administrative support of local development districts. Under this program we can provide up to 75 percent for the administrative expenses of such districts. In 1975, an amount of \$4 million is budgeted for such support under the activity heading "Research, Demonstrations and Local Development Districts."

Mr. EVINS. The Congress in its wisdom set out various programs—mine area restoration, health care centers, trade schools, hospitals, highways—each one under a separate statute and it is now proposed to lump them into one category called "area development."

RELATION TO OTHER FEDERAL PROGRAMS

Mr. MYERS. What confuses me though, Department of Interior does some mine restoration work, health care HEW has some responsibilities. I am wondering if these funds are to provide local funds so that

additional Federal funds to other programs can be brought into the area or just how it fits into the program.

Mr. WHITEHEAD. Yes. There is no question that this is the basic purpose of our supplemental grant money.

For instance, you prompt me to make the important statement that we do not implement the projects funded under this program. Once we approve a project, we transmit the project with the funds to HEW, to HUD, to Agriculture, whatever the case may be, and the Secretary of that department actually makes the grant and administers the grant. So we are piggy-backing the work of the Cabinet agencies and line departments in great part.

Mr. MYERS. Are all requests for Federal programs channeled through you in these development areas?

Mr. WHITEHEAD. No.

Mr. MYERS. You do not have awareness then of other Federal programs existing?

Mr. WHITEHEAD. Awareness of other Federal programs, yes, but not awareness of individual projects.

Mr. MYERS. That is all the questions I have.

Mr. EVINS. Mr. Davis?

HOUSING DEFAULTS

Mr. DAVIS. Just a couple.

You are not asking for new money for the housing fund, I notice.

Mr. WHITEHEAD. That is correct.

Mr. DAVIS. What kind of records do you have up there in your area with respect to defaults and having to take over?

I have seen the Secretary of HUD quoted as saying that he was the biggest landlord in the country now, that he had over 250,000 housing units on his hands that had defaulted.

Mr. WHITEHEAD. Our housing programs breaks down into three parts; providing technical assistance, providing site development grants, and providing loans for the planning funds for securing conventional long term financing under the National Housing Act, section 235, 236, and so on.

Since the third component there, the planning loan, is directly related to the HUD program, our experience would be the HUD experience.

Do you wish to add to that, Mr. Moravitz?

Mr. MORAVITZ. To our knowledge, no project which has been completed with planning loan assistance from the Commission has gone into default. However, we have made loans to help plan projects, but they have never been constructed. We do have that differentiation.

COMMISSION OFFICE LOCATION

Mr. DAVIS. Your offices are located where?

Mr. WHITEHEAD. In Washington, D.C.

Mr. DAVIS. Right here?

Mr. WHITEHEAD. Yes.

Mr. DAVIS. Do you have subregional offices as well in these three subregions that you talk of?

Mr. WHITEHEAD. No.

Mr. DAVIS. You are all centered right here?

Mr. WHITEHEAD. That is correct.

Mr. DAVIS. Does that apply, too, with respect to the personnel representing the various States that are involved here?

Mr. WHITEHEAD. The personnel representing the various States work in those States, either in the Governor's office or a State cabinet agency, such as Commerce. Of course, they are not employees of the Commission. They are assisting a State member and each Governor is a member, a voting member in the Commission. They are assisting that State member in the implementation of the Commission program.

Mr. DAVIS. Are all of the meetings of the Commission held here or do they have subregional meetings as well?

Mr. WHITEHEAD. We have generally met here in Washington. It is the most central location. It is the easiest place for the greatest number of people to come.

However, we have felt that there is always a value of getting out into the region and having the representatives from New York and Ohio know something of the problems in Alabama, Mississippi, South Carolina, and so on. So from time to time we have tried to meet out in the region.

In the last couple of years we have received specific invitations from Governors to come and hold a meeting in their portion of the region.

For instance, recently we have met in Pennsylvania at the invitation of Governor Shapp; in Ohio at the invitation of Governor Gilligan.

Our May meeting will be held in South Carolina, at the invitation of Governor West, who is currently serving as States cochairman of the Commission.

In order to describe the partnership aspect of the Commission, the dual State-Federal role, my title is Federal cochairman. There is a State cochairman, always a Governor serving in rotation for a 6-month term. Currently it is Governor West. He has invited us to hold our May meeting of the Commission in South Carolina, in conjunction with proceedings of the Coastal Plains Regional Commission.

He is also serving, or has just left service as States cochairman of the Coastal Plains Regional Commission. He feels we have common problems to discuss.

There is some value to getting out into the region, although it is expensive and does increase our budget for travel and so on.

SIGNIFICANCE OF SUBREGIONS

Mr. DAVIS. I think basically what I am trying to get at here, what is the significance now of these three subregions? There is no separate administrative responsibility within those regions at all?

Mr. WHITEHEAD. No; administratively we are one region.

First of all, it is to sharpen our own thinking. That is, as we analyze the ways in which northern Appalachia differs from central and southern Appalachia, it helps us provide a little more purposeful direction for what we are trying to do. It helps us, we hope, arrive at a more specific understanding of what our real goals are in northern Appalachia, as compared to central or southern.

Second, in addition to this there is the planning need, the budgeting need. As we compare central Appalachia to northern and southern, it is quite clear to all of us that the greatest need in Appalachia is in

east Kentucky, southern West Virginia, southwest Virginia, and north-east Tennessee, and that is where we should put an increasing percentage of our dollar.

It just makes it clearer that that is the fact when we have separated the region out and compared its problems and its needs on that basis. This has been important because it is not easy, Mr. Davis, to create conditions under which it can be expected that a Governor from a Northern or Southern State could agree to share a larger part of the Commission's appropriation with a State other than his own.

This is something that requires considerable sophistication and commitment to the regional idea. I do not think we could have presented a sufficiently convincing case to State representatives, to Governors outside of central Appalachia, had we not broken out its problems in this way.

Mr. DAVIS. So when you speak of the subregions—

Mr. EVINS. It is an administrative breakdown.

Mr. DAVIS. That is what I cannot find, nothing finite here that there is an administrative breakdown. It is simply a planning tool.

Mr. WHITEHEAD. Yes.

Mr. DAVIS. Which you use in your offices?

Mr. WHITEHEAD. That is correct.

Mr. DAVIS. So there is no such thing as a subregional committee of the Commission or anything of this kind?

Mr. WHITEHEAD. No, no, none at all.

We did ask that the States meet together and define their sub-regional strategies as they saw it. I have that breakdown which I would like to provide, Mr. Chairman, for the committee. It indicates the thinking of the States, for instance, in northern Appalachia as to what they think their problems are, what their common emphasis ought to be. They are very general statements. There is no administrative apparatus or other such distinction between the various sub-regions, however.

Mr. DAVIS. That is all.

Mr. EVINS. As a matter of fact, the program is working well and the program is successful. The Congress defined Appalachia from New York to Mississippi, including certain mountain counties along the ridges. You appear to be getting closer to block grants.

Appalachia is broken down between northern Appalachia, central Appalachia, and southern Appalachia. So this is an administrative change, but you are still going to work within the framework of the statute passed by Congress?

Mr. WHITEHEAD. Yes, sir; yes.

Mr. EVINS. I guess you have to have new ideas as progress comes along. Congressman Bob Jones has written a letter which we inserted in the record indicating there is no objection to this proposal by the legislative committee.

Mr. WHITEHEAD. We have a similar letter, Mr. Chairman, from Congressman Harsha, the ranking minority member of the Public Works Committee.

Mr. EVINS. Change is inevitable, but it seems to me this proposal is a little bureaucratic, that is the way I would characterize your proposal. However, we want to commend you because the objective is good, the goals are good.

Mr. Robison?

Mr. ROBISON. I am sorry that because of a commitment to be present at another hearing earlier this morning, I missed your statement, and probably your thorough coverage of the points I shall bring up.

While I welcome the flexibility which will be afforded to States as a result of the "block allocation" approach, it would appear to me essential that the overall objectives for Appalachia in authorizing legislation—through a regional approach—be maintained. What changes in review procedures, and priority goals, are to be expected because of the "block allocation" formula being proposed?

Mr. WHITEHEAD. We appreciate the committee's concern that the Commission maintain a regional approach. One of the objectives of the block allocation procedure is to emphasize regionalism. For instance, the block allocation we propose includes an allocation portion of our funds by subregions with like characteristics and the subsequent allocation to each State of its appropriate share of this subregional amount, with the understanding that such funds would be spent in accordance with mutually supportive investment strategies agreed upon by the several States within a particular subregion. We expect this procedure may produce priority goals to be set by the States which will be more sharply focused on the unique characteristics of each of the subregions.

No change in review procedures are contemplated. States will continue to apply for Commission funds by individual project applications subject to review against present standards and would require Commission approval including the assent of the Federal Cochairman.

Mr. ROBISON. You make mention in your statement of developmental priorities, identified on a "subregional" basis: northern, southern, and central Appalachia. Yet there would not seem to be any formal "subregional" structure.

I do not ask this question with any idea of imposing another layer of bureaucracy on to Appalachian programs. But it sometimes seems to me that the pendulum of Federal aid swings erratically—leaving States, counties and municipal governments somewhat bewildered. Where there are "informal" subregional designations, with differing needs identified, how is multistate coordination achieved? And will the proposed "block allocation" hinder such coordination?

Mr. WHITEHEAD. You are correct that we are not proposing any administrative or bureaucratic subregional structure. Our proposal is limited to impacting on planning and budgeting procedures and for this reason, would not impose a layer of bureaucracy on the Appalachian program.

Likewise, it is our confident expectation that focusing our attention on those economic, social, and demographic similarities within the smaller subregions would promote additional multistate coordination in the Appalachian program. That is, identifying common characteristics, common needs and common priorities should suggest common program response from the States belonging to a particular subregion.

In addition, as the budget presentation indicates on page 26, subregional allocations have been made so as to recognize differing intensities of need within Appalachia. We have modified the allocation formula used in the section 214 program with an additional weight or factor to provide extra compensation for central Appalachia. This

recognition by States not within central Appalachia of their responsibility for demonstrating a regional commitment is, in my opinion, multistate cooperation of the very highest order.

Mr. ROBISON. A point of clarification. Your budget request for the "Highway program" is for \$160 million for fiscal year 1975, about the same amount as in the 1974 budget. Will there be latitude for alternative means of transportation, other, that is, than highways, per se, as provided for in recently enacted authorizing legislation?

Have there been any changes in the Commission's priorities as a result of that legislation?

Mr. WHITEHEAD. The action of the Congress last year to permit mass transportation grants to be made from the highway trust fund has definitely captured our interest at the Commission. We have supported through our section 302 program a number of demonstration efforts in planning and limited operation of mass transportation systems. As a result of Commission activity in this respect, we think the Appalachian region is somewhat in advance of most of rural America. Yet we recognize that these modest and isolated first steps will require augmentation and implementation. For this reason, we have included transportation mode alternatives to highway construction in the program design and evaluation efforts currently underway at the Commission. Specifically, we are examining rail, air, water, pipeline, and rubber-tired mass transportation needs of the region both for passenger and cargo traffic. It is my personal hope that appropriate means may be found to provide regionally designed bus systems in the near future to bring transportation improvements within the reach of more Appalachians.

Mr. ROBISON. In the case of child development programs, where Appalachian funds provide the start-up "seed money" for programs for I believe a 3-year period—can you give us some idea of the "track record" of communities to continue the programs, after the start-up period has expired? In a larger sense, I suppose what I'm asking is whether communities lacking the resources to continue programs without aid from the Appalachian Regional Commission are well served, in the long run, when these programs are dropped or drastically reduced? Could you comment on this, please?

Mr. WHITEHEAD. Child development project grants receive 5 years of support from the Commission: the first 2 years, we may make grants for up to 100 percent of the costs; for the next three of operation, our grants cannot exceed 75 percent of operating costs.

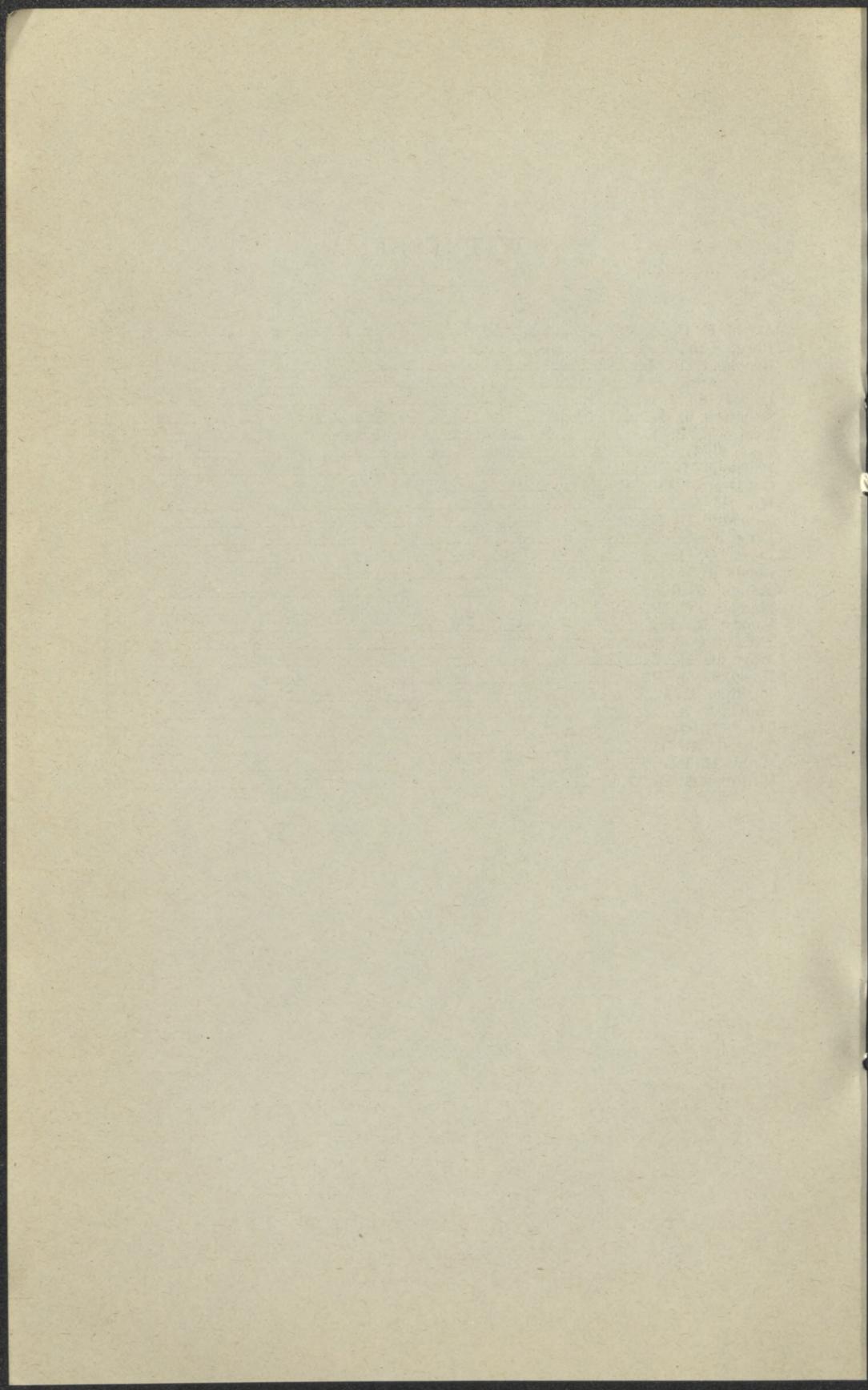
Since most of our child development projects were begun in 1970 or later, we have not yet had a true test of their ability to survive termination of Commission funding. It is my personal view that the finite duration of Commission support is a critical element in the planning and operation of both our health and child development programs. Projects which can neither attract funding from regular State or Federal sources, nor receive sufficient community support should, in my opinion, be allowed to expire. Such efforts should be viewed as examples on how not to operate, and act as useful subjective reasons for future planning.

Mr. EVINS. Thank you, Mr. Whitehead, we think you are doing wonderful work. We commend you.

The committee will take under consideration your request. Thank you very much for your appearance.

WITNESSES

	Page
Allen, F. C.-----	1
Berg, C.A.-----	1
Brooke, A. B., Jr.-----	1
Dietz, Adm. J. S.-----	150
Di Marino, J. N.-----	1
Drennan, L. H.-----	1
Eastman, P. W.-----	150
Fike, C. L.-----	1
Forquer, L.-----	1
Goldstein, D.-----	1
Hill, R. F.-----	1
Journey, D. D.-----	1
King, J. F.-----	1
Lerch, O. H.-----	157
Lewis, B. J.-----	157
Matson, J. R.-----	1
Maxson, W. P.-----	1
Moody, R., Jr.-----	1
Moravitz, F. E.-----	157
Moy, M. H.-----	1
Nassikas, J. N.-----	1
Phillips, T. A.-----	1
Smith, D. S.-----	1
Teter, H., Jr.-----	157
Thorell, R. D.-----	1
Wald, H. P.-----	1
Whitehead, D. W.-----	157



INDEX

	Page
APPALACHIAN REGIONAL COMMISSION.....	157
Justification material.....	170-249
Salaries and expenses.....	250-270
Statement of Federal Cochairman Donald W. Whitehead.....	160
FEDERAL POWER COMMISSION.....	1
Accounting surveillance.....	148
Additional hydroelectric capacity.....	104
Administration.....	148
Air quality regulations, State and Federal.....	149
Alaska natural gas.....	99
Annual charges.....	99
Coal supplies.....	101
Conservation of energy.....	98, 102, 127, 182
Conservation program.....	145
Consultants.....	147
Curtailment applications of pipeline companies.....	111, 112, 115
Deregulation of natural gas producers.....	104, 105, 108, 109, 110, 131
Electronic powerplant siting.....	123, 128, 129
Energy conservation.....	102, 103
Environmental considerations.....	114, 125, 141, 142
Equipment funds for FPC.....	142
Federal corporation for development of natural gas and oil reserves.....	138
Federal electric rates, FPC review of.....	145
Federal Energy Office demands for FPC assistance.....	119, 121
Federal hydroelectric projects.....	122
Gas supply estimates of oil companies.....	95
Hydroelectric licensing.....	122
Importing liquefied natural gas.....	100
Incentive for natural gas exploration.....	101
Modification of regulations and accounting procedures.....	139
Natural gas:	
Conservation.....	101
Industry systems evaluation.....	116
Producer rates.....	143
Rates.....	106, 111
Supplies.....	99
Survey.....	114, 131
Workload.....	111, 112, 115, 117
Oil reserves.....	102
Pending hydroelectric applications for new capacity.....	104
Personnel transfers to Federal Energy Office.....	121
Potential hydroelectric capacity.....	103
"Producible shut-in" leases.....	134
Relicensing hydroelectric projects.....	130
Slippage in nuclear generation of electric power.....	103
Statement of Chairman Nassikas.....	1, 92
Supreme Court decision on annual assessments.....	97
Travel costs.....	147
TVA ratemaking independence.....	145
Water Resources Council.....	146
INTERSTATE COMMISSION ON THE POTOMAC RIVER BASIN.....	150

(III)

