

ENERGY REORGANIZATION ACT OF 1973

DECEMBER 7, 1973.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

Mr. HOLIFIELD, from the Committee on Government Operations, submitted the following

REPORT

together with

ADDITIONAL VIEWS

[To accompany H.R. 11510]

The Committee on Government Operations, to whom was referred the bill (H.R. 11510) to reorganize and consolidate certain functions of the Federal Government in a new Energy Research and Development Administration and in a Nuclear Energy Commission in order to promote more efficient management of such functions, having considered the same, report favorably thereon with an amendment and recommend that the bill as amended do pass.

The amendment strikes out all after the enacting clause and inserts a substitute text which appears in the reported bill in italic type as well as in appendix 4 of this report.

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SUMMARY AND PURPOSE

H.R. 11510, titled "The Energy Reorganization Act of 1973," will reorganize and consolidate major energy research and development (R & D) functions in the Federal Government. The bill provides for:

(1) The creation of an independent Energy Research and Development Administration (ERDA), which will encompass all non-regulatory functions of the Atomic Energy Commission and designated energy research and development functions transferred from other agencies.

(2) Renaming the Atomic Energy Commission as the Nuclear Energy Commission (NEC), which will continue with the same membership, though in a much smaller organization, to administer nuclear licensing and related regulatory functions.

Building upon the scientific and technical base of the present Atomic Energy Commission, ERDA will be a central agency for the conduct and coordination of major Federal energy R & D programs. The bill gives the new agency a broad charter to conduct or sponsor R & D on all energy resources and utilization processes. Technologies for extraction, conversion, storage, transmission and utilization are included. ERDA will be so organized and managed that fossil fuel, advanced energy sources, conservation of energy, and environmental considerations will receive full recognition and appropriate emphasis along with nuclear R & D functions.

ERDA will be headed by a single Administrator and a Deputy Administrator, both of whom will be appointed by the President with the advice and consent of the Senate. They will be concerned principally with setting R & D policy and general administration of the agency.

The bill provides a balanced line organization of five Assistant Administrators, each responsible for a major program area. The program areas named in the bill are fossil energy development; nuclear energy development; environment, safety, and conservation; research and advanced energy systems; and national security. The Assistant Administrators will be appointed by the President and confirmed by the Senate.

The bill also provides for an additional pool of not more than 7 management positions at Executive level V. The Administrator will appoint career officials to these positions and assign responsibilities. These executives will head major staff offices or receive other important assignments. There also will be a General Counsel appointed by the Administrator.

Under the terms of the bill, the following offices or functions will be transferred to ERDA from other Federal Departments or agencies:

All the functions of the Atomic Energy Commission, except those relating to licensing and related regulatory matters.

Such functions of the Department of the Interior as relate to the Office of Coal Research; the fossil fuel energy R & D programs conducted by the Bureau of Mines' "energy centers" and synthane plant; and research in underground electric power transmission.

Such functions of the National Science Foundation as relate to development work in solar heating and cooling and geothermal power.

Such functions of the Environmental Protection Agency as relate to development and demonstration of alternative automotive power systems and technologies to control emissions from stationary sources using fossil fuels.

The mission of NEC will be to insure the protection of the public and environment against nuclear health and safety risks associated with the use of nuclear materials and facilities and against unlawful diversion of nuclear materials under regulatory control. The five-member AEC, including its staff offices, licensing boards, and regulatory directorates, will form the nucleus of NEC, which will be an independent regulatory commission responsible for licensing of civilian use of nuclear power and materials.

NEED FOR THE LEGISLATION

The "Energy Reorganization Act of 1973" is designed to provide the organizational base for a well-managed, centrally-directed attack on energy problems in order to make this nation self-sufficient in clean energy for the decades ahead.

The President has proposed a \$10 billion program of energy R. & D. at the rate of \$2 billion a year for the next 5 years, commencing in fiscal year 1975. Planning for these expenditures now is underway. The Chairman of the Atomic Energy Commission, on the basis of a

recent study, at the President's request, has developed recommendations for the 5-year R & D program encompassing practically all known energy sources and potentials.

In his energy message to the Congress of November 8, 1973, the President called for prompt action to establish ERDA as the administrative mechanism for continued planning and effective program direction of the massive R & D effort required to meet the nation's energy needs. H.R. 11510 responds to the President's request and accords with your committee's conviction, widely shared in the Congress, that this nation must take all necessary steps toward national self-sufficiency in energy.

There is a clear need for a reorganization of energy R & D functions in the Federal Government to bring together separate, uncoordinated, and fragmented efforts. The agency provided in this bill will accomplish that objective and will give comprehensive and systematic direction to solving the nation's energy problems.

The energy crisis demands concerted action on many fronts. There are many legislative bills now being considered in various committees of the Congress. H.R. 11510 is not an omnibus or all-encompassing bill. It is not a substitute for, or alternative to, proposed legislation in specific fields, such as nuclear plant siting, construction of deep-water ports, regulation of strip mining, use of petroleum reserves, or emergency conservation. H.R. 11510 is basically a reorganization bill directed to the research and development part of the national effort to overcome energy shortages, near-, middle-, and long-term.

Other reorganization undoubtedly will be necessary. In anticipation of emergency legislation, the President has proposed creation of a Federal Energy Administration, which is the subject of separate legislation.

Your committee wishes to emphasize that the creation of a new Federal agency for energy conservation and related emergency measures is not a substitute for, or an alternative to, the Energy Research and Development Administration provided in H.R. 11510. The emergency agency is concerned primarily with immediate fuel shortages and energy conservation measures. The R & D agency is concerned primarily with the middle- and longer-term energy problems. The two agencies, when established, can be expected to work in complementary fashion.

The organizational separation of licensing and related regulatory functions in the nuclear field from energy research and development responds to a different need and rationale. There has been a growing criticism of the mixture of developmental and regulatory functions within the AEC. The provision in H.R. 11510 for NEC to perform exclusively the licensing and related regulatory functions should place this whole matter on a sounder policy basis and should enable the Commission to more effectively address the complicated, demanding tasks of licensing nuclear plants, materials, and activities.

The testimony is compelling, and the President has recommended, that the time required for construction and licensing of nuclear power plants be substantially reduced. Informed witnesses before the subcommittee pointed out that the time span for getting nuclear plants into operation is as long as 10 years under procedures and circumstances that now prevail. Your committee is convinced that the time-

scale for construction and licensing in this field must be cut down without sacrificing safety and environmental considerations.

COMMITTEE AMENDMENT

In the course of subcommittee and committee consideration, several changes were made in H.R. 11510. These are incorporated in a new text in the form of a single committee amendment to H.R. 11510, which strikes out all after the enacting clause and inserts the new language. The committee amendment is shown in appendix 4.

COMMITTEE VOTE

H.R. 11510 was ordered reported unanimously by the committee on December 5, 1973. The vote was 40 ayes and 0 nays. The vote by the subcommittee on reporting the bill to the full committee also was unanimous, with 12 ayes and 0 nays.

BACKGROUND AND HEARINGS

To understand the evolution of H.R. 11510, it is necessary to place it in the context of broader reorganization proposals. In January 1971 the President proposed in his State of the Union message (subsequently incorporated in draft legislation) four new departments to replace seven existing ones in the executive branch.¹ One of these was the Department of Natural Resources (DNR). It was to have five component administrations, one of which was termed the Energy and Minerals Resource Administration. This unit was to be charged with policy formation and administration of the development and use of national energy resources and technology. It was to be based largely on existing energy functions within the Department of the Interior plus the raw materials and uranium enrichment programs and several other functions to be transferred from the Atomic Energy Commission. It was to have policy, planning, and funding responsibilities for civil nuclear power development as well as for non-nuclear programs committed to its jurisdiction.

In June 1971 the Legislation and Military Operations Subcommittee held overview hearings on the executive reorganization proposals.² About this time the President transmitted an energy message to the Congress, which laid out the Administration's plans, as then conceived, for development and conservation of energy resources. It also called for a "single energy authority" in the DNR with "the mission of insuring that the total energy resources of the Nation are effectively utilized."³ However, none of the President's proposals for departmental reorganization reached the stage of floor consideration in the House or Senate during the 92nd Congress.

In the 93rd Congress, commencing in January of this year, the energy situation became more difficult, and numerous legislative bills

¹ House Doc. No. 92-1, January 22, 1971. See "Executive Reorganization: A Summary Analysis," House Report No. 92-922, March 15, 1972.

² "Reorganization of Executive Departments (Part 1—Overview)," hearings before a subcommittee of the Committee on Government Operations, House of Representatives, on H.R. 6959, H.R. 6960, H.R. 6961 and H.R. 6962 on June 2, 3, 7, 8, 14 and 16; July 7, 8, 22 and 27, 1971.

³ H. Doc. No. 92-118, June 4, 1971.

on the subject were introduced. In an energy message to the Congress on April 18, the President announced, among other things, that he would submit legislation to establish a Department of Energy and Natural Resources (DENR) based on the earlier proposal "with heightened emphasis on energy programs." The new department, the President explained, would provide governmental leadership for dealing with the whole range of national energy problems and be responsible for administering the national energy policy outlined in his message.⁴

In the following months, draft legislation to create the DENR was prepared by the Administration. By the time the legislation emerged in mid-year, and partly as a result of suggestions by Chairman Holifield and other members of your committee, it became a two-part proposal: Part A to establish a Department of Energy and Natural Resources (DENR), and Part B to establish an independent Energy Research and Development Administration (ERDA). The assortment of energy functions in DENR was to be somewhat different from that proposed for DNR in 1971. Generally, the departmental component would emphasize data collection, conservation, and other administrative or operating concerns in the energy field, and the independent agency would emphasize energy research and development. Uranium and thorium resource assessment functions would go over to DENR from AEC, and in turn the primary fossil fuel research and development functions of Interior would go over to ERDA.

The new R & D agency, in addition to acquiring the Office of Coal Research and the energy research centers from the Department of the Interior, was to absorb all the AEC functions except those relating to licensing and regulation. The latter were to be assigned to a Nuclear Energy Commission (NEC), which would be the AEC renamed, smaller in size, and devoted exclusively to a licensing and regulatory role.

The draft legislation was introduced (by request) by Chairman Holifield and Representative Frank Horton, ranking Republican member of the committee. Hearings were held on this bill (H.R. 9090) in July and August,⁵ and further hearings were planned.

As the energy crisis intensified, particularly with the Arab oil embargo starting in October, your committee changed its legislative plans. It was apparent that the two-part reorganization, involving both DENR and ERDA, would entail extended hearings, particularly because numerous organizations and interest groups were concerned about one or another aspect of the agency transfers associated with the proposed new department. Expedient action in the energy field dictated a separation of the two parts of the bill. The President recognized the merits of this course in his energy message to the Congress of November 8, in which he stated: ⁶

Because of the critical role which energy research and development will play in meeting our future energy needs, I

⁴ H. Doc. No. 93-85, Apr. 18, 1973.

⁵ "Department of Energy and Natural Resources and Energy Research and Development Administration (Part 1)," hearings before a subcommittee of the Committee on Government Operations, House of Representatives, on H.R. 9090, July 24, 25, 26, and 31; and August 1, 1973.

⁶ H. Doc. No. 93-187, Nov. 8, 1973.

am requesting the Congress to give priority attention to the creation of an Energy Research and Development Administration separate from my proposal to create a Department of Energy and Natural Resources. The new Administration would direct the \$10 billion program aimed at achieving a national capacity for energy self-sufficiency by 1980.

H.R. 11510, by providing for the establishment of ERDA, gives the priority attention requested by the President. The bill, based on Part B of H.R. 9090, was prepared by your committee and its staff, in consultation with expert staff from the General Accounting Office, the Office of Management and Budget, the Atomic Energy Commission, the Department of the Interior, and the Department of Justice. Many hours of work, on an expedited basis, went into the consideration and preparation of the bill. H.R. 11510 was introduced on November 15 by Chairman Holifield and Representative Horton, the ranking Republican member of the committee; joined by Representatives Price and Hosmer, the Chairman and ranking Republican member, respectively, of the Joint Committee on Atomic Energy. Several identical or similar bills have been introduced with a total of 57 sponsors. A list of the sponsors is contained in appendix 1.

Hearings on H.R. 11510 were held on November 27, 28 and 29 by the Legislation and Military Operations Subcommittee. Testimony was received from Roy L. Ash, Director of the Office of Management and Budget; Dixy Lee Ray, Chairman of the Atomic Energy Commission; John Whitaker, Under Secretary of Interior; and John A. Love, then Director of the Energy Policy Office in the Executive Office of the President. Also heard were Dr. Chauncey Starr, President of the Electric Power Research Institute; John W. Simpson, Vice Chairman of the Atomic Industrial Forum; Carl Bagge, President of the National Coal Association; John Partridge, representing the American Gas Association; and Robert D. Partridge, Executive Vice President of the National Rural Electric Cooperative Association.

Other witnesses included Dr. Robert G. Sachs, Director of the Argonne National Laboratory; Dr. Harold M. Agnew, Director of the Los Alamos Scientific Laboratory; S. David Freeman, Director of the Ford Foundation Energy Policy Project; Professor John S. Steinhart of the University of Wisconsin; Dr. Alvin Weinberg, Director (on leave) and Floyd L. Culler, Acting Director, of the Oak Ridge National Laboratory; Ann Roosevelt, representing Friends of the Earth; Shearon Harris of the Edison Electric Institute; and James T. Ramey, former Commissioner of the Atomic Energy Commission.

Members of Congress who testified were Mike McCormack and Lawrence Coughlin.

Witnesses, with one or two exceptions, strongly favored enactment of the legislation. The bill, in substance, was endorsed by organizations with such differing energy points of view as the Edison Electric Institute, the National Rural Electric Cooperative Association, and the American Coal Association. In a few cases, reservations were expressed about one or another provision in the bill. Some of the witnesses made helpful suggestions which were reflected in the changes made in the bill.

ERDA ADMINISTRATIVE ORGANIZATION

ERDA will be headed by a single Administrator, who, along with a Deputy Administrator, will be appointed by the President by and with the advice and consent of the Senate. They will be compensated at levels II and III, respectively, of the Executive Schedule. The Committee expects that the Administrator, and the Deputy, will be principally concerned with setting R & D policy and with the overall direction and management of the agency.

Under the Administrator, there will be five Assistant Administrators, who, respectively, will head the following five major missions of ERDA: (1) fossil energy development; (2) nuclear energy development; (3) research and advanced energy systems; (4) environment, safety, and conservation; and (5) national security. These five Assistant Administrators also will be appointed by the President by and with the advice and consent of the Senate, and will receive compensation at the rates prescribed for positions at level IV of the Executive Schedule.

The individual program management responsibilities of each of these Assistant Administrators should assure strong leadership and clear-cut accountability for achievement of specifically assigned objectives. Their equality of rank, and the statutory basis for their administrations, will emphasize the intent of the bill to give full attention and appropriate emphasis to the different energy sources and potentials and to environmental, safety, and conservation aspects.

The development of fossil fuels, for example, will get the same degree of leadership drive and direction that will be bestowed on continuing efforts to advance nuclear technology. At the same time, solar, geothermal, and other energy sources and advanced energy systems will be investigated with required intensity and motivation. Your committee does not expect, of course, that all energy program areas will be equally funded. The budget requests should be based on the best available information and judgment as to the relative merits and possibilities for gaining usable energy within given time frames and within economically and environmentally acceptable bounds.

At the next lower level, level V of the Executive Schedule, there will be additional officers, not exceeding seven in number, and a General Counsel. These officials will be appointed by the Administrator.

A chart reflecting the present views of the Office of Management and Budget concerning the probable alignment of ERDA's functions is shown in appendix 3-A to this report.

Pursuant to subsection 106(d) of the bill, the Administrator may organize ERDA as he deems necessary or appropriate, subject to certain exceptions. The exceptions are the provisions in section 102 regarding the offices and responsibilities of the Deputy Administrator and the five key Assistant Administrators; the provisions in section 102 regarding the General Counsel, the additional officers, and the Division of Military Application; and the provisions in subsection 104(b) for the transfer from the Atomic Energy Commission of the General Advisory Committee, the Patent Compensation Board, the Division of Military Application, and the Division of Naval Reactors. It is intended that the Military Liaison Committee, established pursuant to section 27 of the Atomic Energy Act of 1954, as amended, serving as a liaison body between the Department of Defense and

Atomic Energy Commission, continue to perform its functions, without change, in relation to DOD and ERDA.

There are two points that the committee wishes to stress about the administrative organization of ERDA :

First, the bill seeks a reasonable balance between the broad discretion accorded the Administrator under subsection 106(d) to organize ERDA as he deems appropriate, and the statutory prescription for at least the fundamental outlines of the administrative organization and the desired qualifications on the administrative discretion specified in section 102 and subsection 104(b). Your committee considers it likely that management, administrative, and program experience will suggest the need for organizational changes from time to time. To the extent that these require legislative action, the committee expects that the Administrator will promptly advise the Congress of his recommendations.

Second, the committee urges the President and the Administrator to be mindful that a good organization also needs good people. It is your committee's judgment, and we strongly recommend, that the Administrator, the Deputy Administrator, and the five high-level Assistant Administrators be carefully selected on the basis of outstanding ability, integrity, and dedication generally acknowledged by their peers. The positions of Administrator and Deputy Administrator are particularly sensitive in insuring that management of the agency is effective, and that its R & D policies and programs are soundly conceived and well executed. We would expect that appointees to these positions will have broad background and experience in the management of research and development programs, and that the qualifications of the appointees will complement and reinforce each other. Your committee believes it particularly important that the top management of the agency not be preoccupied with a single-energy technology or enterprise.

In selecting the Administrator, Deputy Administrator and Assistant Administrators, your committee expects further that the President will give consideration to the views and recommendations of public interest groups and individuals from scientific, consumer, environmental, conservation and energy communities.

Your committee expects that officers and personnel will be selected on a best-qualified basis. As indicated below, personnel will be employed under the system provided for in subsection 161d. of the Atomic Energy Act of 1954, as amended, a system specifically designed to help insure the availability to the Commission of individuals of the highest caliber. Additional information on personnel aspects of H.R. 11510 is given in appendix 2.

Outstanding leadership at the top levels of ERDA will attract and inspire able personnel, as well as instill public and congressional confidence in the conduct of ERDA's affairs.

ERDA MISSIONS

ERDA's missions will include the following :

R & D on all forms of energy

ERDA will exercise central responsibility for policy planning, management, support and conduct of R & D programs and projects involy-

ing all energy sources either transferred to ERDA pursuant to this bill, or otherwise initiated by ERDA, as contemplated by this bill.

The scope of possible energy sources and utilization techniques that ERDA may explore will be virtually unbounded. It will include, but not be limited to, solar, tidal, wind, hydrogen, geothermal (using natural steam, hot dry rock, water injection and other techniques), and nuclear fusion. It will cover new directions as yet unvisualized. The vigorous pursuit of all promising energy sources and technologies will be a major ERDA mission under this bill.

ERDA's responsibilities with respect to energy sources and utilization technology will encompass advances in extraction (on land and undersea), conversion, storage, transmission and utilization technologies. Significant advances in all of these areas will be necessary. For example, it is clear that there will be a critical need to develop new methods of economical, low line-loss underground power transmission capable of handling the augmented power levels that will be required in the future. One of the promising approaches involves cooling the cables to temperatures near absolute zero. Such superconducting cables should be able to transmit electric power in virtually unlimited quantities. The development of useful means of storing electric energy would provide large economic benefits, help pollution control, and make more central station power readily available when and where needed.

As a practical matter, your committee recognizes that achievement of national self-sufficiency in energy at the earliest practicable date clearly demands a sharp upsurge in coal R & D. Coal is our most abundant fossil fuel reserve. We appear to have about half the world's supply. Coal is located in quantity in many areas throughout the country. Properly developed and converted to gaseous, liquid, and other environmentally acceptable forms, coal will materially help us reach a plateau of energy self-sufficiency at the earliest practicable date.

Also, in the near-term perspective, considerable technology in solar-energy utilization for residential purposes appears to be available and deserves R & D attention. Professor John S. Steinhart of the University of Wisconsin testified that residential heating and hot water consumed more than 13 percent of the fuel in this country.

Your committee believes that attainment of an initial plateau of energy independence undoubtedly will not be the full answer to our energy problem. And this plateau may well be a tentative one in context of the health, social, employment, and industrial needs of our people, including the continuing important objective of safeguarding and improving the quality of our environment.

Therefore, your committee has seen to it that under this bill, ERDA's essential long-range responsibility will be the determined pursuit of the grail of a virtually inexhaustible supply of energy that can be widely utilized for the common good without harmful environmental impact. Your committee believes this grail must be sought and, unlike the legendary holy vessel, will be found—perhaps through breakthroughs in solar research, in fusion or other nuclear programs, in geothermal processes, or in other R & D directions not yet pointed to by present knowledge.

Meanwhile, and probably until the end of this century, indications are that we will need to use all available, environmentally acceptable forms of energy that we can develop.

Conservation R & D

ERDA's basic responsibilities will include the encouragement and conduct of R & D for the conservation of energy. This is an important aspect of an effective total R & D response to our energy problem. It encompasses techniques to utilize energy efficiently and to minimize wasteful use. The R & D may be directed, for example, toward advances in kinds of insulation, in structural and equipment designs, in manufacturing methods, and in recycling concepts.

Efficiency and Reliability R & D

ERDA's R & D responsibilities are intended to encompass efforts aimed at increasing the efficiency and reliability of use of energy sources and energy-utilizing equipment and devices. Efficiency and reliability objectives are closely akin to conservation.

Environmental Research

The need to protect and improve our environment will be an integral part of ERDA's missions. The environmentally-related functions transferred from the AEC and EPA will provide a strong base for the continuation and acceleration of this vital research area.

Nuclear Production, Enrichment, and Distribution Activities

ERDA will continue to perform the nuclear production, enrichment and distribution functions of the Atomic Energy Commission. These functions are of first-rank importance, not only in context of the energy problem but from the standpoint of common defense and security. They pertain to special nuclear material (plutonium, and uranium enriched in the isotopes 235 and 233), source material (uranium and thorium), byproduct material (material made radioactive by exposure to radiation in connection with producing special nuclear material), heavy water, tritium and other materials. They also involve unique facilities included in the transfer from the Atomic Energy Commission, and have both domestic and international relevance. The AEC's transferred production facilities and research facilities are valued at approximately \$9 billion.

The most important and complex phase of the nuclear fuel chain is the process of separating the isotopes of naturally occurring uranium (source material) to create a product with increased (enriched) fissionable uranium-235 (special nuclear material). Five countries—the United Kingdom, France, China, the Soviet Union, and the United States—have facilities (gaseous diffusion plants) capable of performing this function. Only the United States currently provides enrichment services to other nations on a large-scale commercial basis. Domestically, the enrichment service is the only processing step in the nuclear fuel-cycle chain which private industry has no capability to perform. The exclusive capability to carry out this key step, which is indispensable to the production of fuel for nuclear powerplants and of weapon materials, is included in the transfer of the AEC's functions.

Reactor Development and Naval Reactor Activities

ERDA will continue to conduct the AEC's functions in regard to reactor development and naval reactor activities. Foremost in the current posture of the long-range developmental effort on nuclear

power plants is the breeder reactor, a power plant that will "breed" more nuclear fuel than it consumes. The liquid metal fast breeder, the breeder assigned the highest priority, will utilize a high-temperature system capable of operating at thermal efficiencies greater than the present generation of commercial water-cooled reactors. This will result in less waste heat being discharged into the environment.

Earlier this year, the AEC entered into a definitive cooperative arrangement with two utilities—the Commonwealth Edison Company and the Tennessee Valley Authority—and two non-profit corporations—the Breeder Reactor Corporation and the Project Management Corporation—for the design, construction and operation of this Nation's first LMFBR demonstration plant. The powerplant will have a generating capacity of 400,000 kilowatts and will be built on a site near Oak Ridge, Tennessee. Initial plant operation is scheduled for 1979.

The AEC's LMFBR activities include an extensive effort in plant design, operation, reactor fuels and materials, physics, chemistry, instrumentation, components and other fields.

This key program utilizes a number of major facilities, including the Fast Flux Test Facility under construction near Richland, Washington, the Liquid Metal Engineering Center near Canoga Park, California, and Experimental Breeder Reactor No. 2 at the AEC's National Reactor Testing Station in Idaho. All these facilities are embraced by this transferred function.

The AEC's important work on other advanced reactor concepts, such as the high-temperature gas-cooled reactor, the gas-cooled fast reactor, and the molten salt breeder reactor, is also part of the transferred reactor development functions.

The naval propulsion reactor program is a joint program of the AEC and the Department of the Navy. ERDA will assume AEC's role, which is carried out by the Division of Naval Reactors and relates to the design, development and improvement of naval propulsion plants and reactor cores for installation in ships ranging in size from small submarines to large combat surface ships. The Division of Naval Reactors is also responsible for maintenance, operation and safety of the nuclear propulsion plants, as well as the selection and training of the necessary personnel.

Your committee is well aware that the Division of Naval Reactors' early work in reactor development provided the technological base for the civilian nuclear powerplants currently in use. Your committee also knows that this Division has trained many of the engineers and technicians now engaged in the design, manufacture or use of nuclear plants for generating central station power on utility systems.

The Division of Naval Reactors is currently conducting a light-water breeder reactor project, aimed at determining the capability of breeding in a pressurized water reactor. This is still another important part of the AEC's developmental mission in regard to breeder reactors.

The outstanding success of the Naval Reactors Division, from the standpoints of both the civilian reactors program and the common defense and security, is well known. The dual scope and contributions of this program in classified and non-security areas continue. Your committee wants to express clearly its conviction that if the functions of the Naval Reactors Division had not been under the jurisdiction of

the AEC, most of its accomplishments in both the peaceful and naval ships areas probably would not have materialized.

Biomedical and Physical Research

ERDA will inherit the AEC's biological, medical, and ecological research programs that have been in existence for 25 years. They have provided a valuable body of information and tools to further health care, help develop useful applications of radiation and nuclear technology, assist the environmental missions of the AEC, and evaluate the possible hazardous effects of nuclear developments on man and the environment.

ERDA also will assume the AEC's role in connection with its physical research program, a long-range basic research effort to further man's understanding of the natural laws and phenomena governing matter. Both theoretical and experimental research, and work in the fields of high-, medium-, and low-energy physics are conducted. Chemistry, metallurgy, properties of materials, and mathematics and computers fall within the purview of this research effort.

Last year two new unique facilities went into operation, increasing the number of national complexes that form part of the AEC's physical research program:

(a) The National Accelerator Laboratory at Batavia, Illinois, produced the first 200 billion electron volt beam and several months later doubled this energy—five times greater than the highest proton energy previously reached by any accelerator in the world. The NAL is operated for the AEC by the Universities Research Association, a consortium of 34 major American and Canadian universities.

(b) The Clinton P. Anderson Meson Physics Facility at Los Alamos, New Mexico, achieved a low-intensity 800 million electron volt proton beam. This accelerator, operated by the University of California, will provide negative ions for cancer treatment, and it will be used for research in nuclear physics, nuclear chemistry, elementary particle physics, and nuclear weapons.

Physical research has relevancy to more advanced energy R & D, since it seeks to unravel the secrets of the smallest units of matter-energy.

Fusion R & D

The fusion program was spawned by the nuclear weapons work and later spun off from the physical research program to emphasize its importance and accelerate its development. Controlled thermonuclear reaction, or fusion, is the process by which nuclei of light elements collide at high velocity and fuse to form heavier nuclei, thereby releasing energy. The sun's heat is an example of the fusion process. Present expectations generally point to the year 2000 as the earliest time when economic fusion power could be available.

The basic requirements for achieving useful power from a fusion reactor are: (a) to heat a fusion fuel to a temperature of hundreds of millions of degrees (plasma); (b) to confine the plasma, so that it does not contact any natural walls or impurities, long enough for the fuel to react; and (c) to extract the released energy and convert it to a useful form. The AEC's comprehensive fusion program is a major component of the functions transferred to ERDA.

Military Application

The AEC's functions respecting the development and production of nuclear weapons will be continued by ERDA.

The AEC conducts the research and testing basic to the design and development of new and improved nuclear weapons systems and manufactures nuclear weapons and devices. It improves the stockpiled weapons through modifications, carries out quality assurance testing of new devices, assesses weapon reliability, and produces training materials and devices.

Nuclear weapons R & D is conducted primarily by three major laboratories of the AEC: Los Alamos Scientific Laboratory at Los Alamos, New Mexico; the Sandia Laboratories at Albuquerque, New Mexico; and the E. O. Lawrence Livermore Laboratory at Livermore, California.

During the past quarter-century there has been a close beneficial interrelationship between nuclear weapons R & D and peaceful application purposes. It has taken two forms—technological “spinoffs” and ongoing dually-useful R & D.

Technological “spinoffs” continue to come quickly from the AEC's weapons R & D program. They include such major developments as the subterranean, a device for penetrating deeply into earth without drills. The device melts the underlying rock and creates a hole neatly walled in by congealment of the melted material. Experiments to date have achieved penetrations in rock to depths of 85 feet. This device will be invaluable for oil exploration and extraction, for geothermal mining, and other purposes.

Another recent “spinoff” is a sea ice penetrator, a device capable of remotely measuring the thickness of sea ice. The device is dropped from aircraft, and, as it penetrates the ice, it transmits data which are later used to compute ice thickness.

Still another recently-developed device resulting from R & D on nuclear weapons is a tool that can measure the thickness of materials without touching them. Its accuracy is greater than one-tenth the thickness of a human hair. Measuring without contact is particularly important when applied to materials that can be damaged by contact.

Many R & D activities in AEC laboratories are beneficial for both weapons and civilian purposes. This mutual benefit occurs naturally and inevitably because the same laboratory, the same scientists and engineers, the same equipment, tools, computers, and instrumentation, are used for both purposes under the laboratory's assigned responsibilities.

Your committee is aware of arguments for a complete separation between military application activities and R & D for peaceful purposes. The military part, presumably, would go to DOD and the civilian aspect to ERDA. However, precipitate divorce would cause a serious setback to the energy and other goals of ERDA as well as to the common defense and security. The finely-tuned balance of relative priority and emphasis in regard to each dually-valuable task would suddenly change, and the spirit and motivation of the scientists and technicians would seriously suffer because of their reassignment, even though much of the same work could continue through inter-agency agreements.

Your committee is keenly aware also that it would be extremely difficult to redesign the security system of "Restricted Data" provided for in the Atomic Energy Act, if there were a split of security-related responsibilities between ERDA and the DOD. This security system now is applicable to civilian-related functions, such as the use of special nuclear material in the production of atomic energy, as well as to atomic weapons.

These matters are of the utmost importance. They must be considered carefully before any conclusions are reached about a transfer to DOD. Subsection 306(b) of the bill explicitly provides that during the new agency's first year of operation, the Administrator, in collaboration with the Secretary of Defense, shall conduct a thorough review of the desirability and feasibility of transferring to the Department of Defense (or any other Federal source) the functions of the Administrator respecting military application and restricted data. This subsection further provides that within one year after the Administrator first takes office, he shall make a report to the President for submission to the Congress setting forth his comprehensive analysis, the principal alternatives and the specific recommendations of the Administrator and the Secretary of Defense.

In concluding its comments on the weapons program, the committee wishes to respond to a request by Dr. H. M. Agnew, the Director of the Los Alamos Laboratory, in his testimony before this committee on November 29, 1973. Dr. Agnew stated :

I urge that you specifically designate that the Director of Military Applications be at the three-star rank. I believe this is very important since the DOD officials with whom he has to interact are at that level, and I believe the caliber of officers who will be available to the Administration will be better qualified at this rank. A Brigadier or Major General equivalent who wishes to further his military career is at a decided disadvantage in questioning some of the requirements imposed upon him by his DOD counterparts who are at the three-star level.

The committee believes this recommendation makes good sense, and, in turn, recommends that the head of this important statutorily-designated division be at the three-star rank.

Other AEC Functions

The other AEC functions that ERDA will assume include nuclear education; training and fellowship activities; cooperative university-AEC laboratory research program; nuclear waste management; the raw materials program; production and sale of special radioisotopes and heavy water; international activities; health and safety research; operational safety; AEC's responsibilities under the Atomic Energy Community Act of 1955, as amended; the technical information program; and the nuclear and non-nuclear applied technology program (e.g., nuclear gas stimulation activities, geothermal resource developments, high-capacity power transmission, and advanced batteries for energy storage).

ERDA also will assume AEC's basic responsibility for security. This pertains to the safeguarding of special nuclear materials against diversion from peaceful to weapon uses, to declassification activities

and the safeguarding of restricted data, and to other security aspects of the provisions of the Atomic Energy Act of 1954, as amended.

FUNCTIONS TRANSFERRED TO ERDA

The bill transfers to and vests in the Administrator all functions of the Atomic Energy Commission other than its licensing and related regulatory functions.

The bill also transfers to and vests in the Administrator functions from three sources described below.

(1) *Functions of the Department of the Interior relative to the Office of Coal Research: to fossil fuel energy research and development programs and related activities conducted by the Bureau of Mines "energy centers" and synthane plant; and to underground electric power transmission research.*

Major programs of the Office of Coal Research include conversion of coal to liquid fuels and to high BTU pipeline gas and to low BTU gas for industrial use; also improved combustion and clean, efficient conversion of coal to electricity by advanced power systems. The functions of the office are to be transferred in their entirety. The resource level for these functions in fiscal year 1974 includes \$94 million in obligations, \$79 million in outlays, and 55 permanent positions. The President has requested supplemental funds for fiscal year 1974 in the amount of \$28.2 million in budgetary authority and \$10 million in outlays. According to the OMB, 55 additional positions would be needed to conduct this accelerated program.

The Bureau of Mines facilities comprise 22 field laboratories and a synthane plant. Six of the laboratories and the synthane plant are devoted to energy R & D and would be transferred to ERDA. The six laboratories are engaged in R & D on numerous aspects of production, conversion, and utilization of fossil fuels—coal, gas, oil and oil shale. The synthane plant is a coal gasification pilot plant, now under construction. The fiscal year 1974 resource level of the Bureau of Mines functions to be transferred is \$21 million in obligations, \$16 million in outlays, and 715 permanent positions.

The activities remaining in the Bureau of Mines are, for the most part, not energy-related in an R & D sense. Energy-related work which will remain in the Bureau includes some of the mining technology research activities. Expertise in this area is essential for mining health and safety research and provides support required to avoid disruption of the Bureau's remaining program. This work will not be transferred because of its intimate relationship to other mining technologies. The non-energy R & D involves metals and other ores not used as energy sources and therefore is not appropriate for transfer.

The Bureau's program for underground electric power transmission research is conducted in cooperation with the Electric Power Research Institute on a cost-sharing basis (60-80 percent industry and 20-40 percent Government). Contract research, in cooperation with the Electric Power Research Institute, is conducted by commercial organizations, educational institutions, nonprofit research organizations, and governmental agencies where expertise exists.

The fiscal year 1974 resource level for transmission research includes \$1 million in obligations, \$1 million in outlays, and five per-

manent positions. A supplemental appropriations request of \$1.25 million in budgetary authority and \$0.8 million in outlays for fiscal year 1974 has been sent to the Congress by the President. The requested increase is to support an accelerated R & D effort, primarily in the areas of underground transmission, in conjunction with projects approved by the Electric Power Research Institute. An additional three positions would be needed to carry out this accelerated program.

(2) *Functions of the National Science Foundation relating to solar heating and cooling development, and to geothermal power development.*

Specifically, it is proposed that the program leading to the development and demonstration of "heating and cooling of buildings" with solar energy be transferred to ERDA. This program seeks to demonstrate the technology necessary to produce economically feasible systems for heating and cooling buildings. The program is being conducted by grants and contracts in which the major performers are universities, complemented by private industry, national laboratories, and nonprofit institutions. For fiscal year 1974 these projects involve obligations of \$3 million and outlays of \$3 million.

The NSF geothermal energy program to be transferred to ERDA is designed to exploit alternative sources of geothermal energy. For fiscal year 1974, obligations and outlays will be \$0.5 million each.

It is anticipated that NSF will continue to support long-range research on advanced concepts in selected energy areas. In particular, NSF—with its strong ties to universities—will draw on their capabilities to produce new ideas and concepts to insure that all good, competitive ideas meriting support are pursued.

Basic research will continue under NSF sponsorship in solar, geothermal, and other areas, such as pursuing energy systems studies related to supply and demand for energy within the economy and energy conservation; investigating novel techniques to transport energy from production sources to consumption sites; investigating improved methods for converting energy from one form to another; and discovering methods to more effectively manage and utilize conventional energy sources.

The fiscal year 1974 resource levels for the energy research programs remaining in NSF are as follows: obligations and outlays of \$10 million each for advanced concepts research utilizing solar energy; obligations and outlays of \$3 million each for advanced concepts in geothermal energy; and obligations and outlays of \$8 million each in long-range and basic energy research.

(3) *Functions of the Environmental Protection Agency (EPA) relating to the development and demonstration of alternative automotive power systems, and to the development and demonstration of precombustion, combustion, and postcombustion technologies to control emissions of pollutants from stationary sources using fossil fuels.*

The goal of the Alternative Automotive Power Systems (AAPS) research is to demonstrate the feasibility of alternative systems to power automotive vehicles which (a) would meet or exceed Federal emission standards, and (b) would achieve greater fuel efficiency. At present the AAPS program is pursuing the development and demonstration of the Brayton cycle (gas turbine) and Rankine cycle (steam)

engine systems, and (with Army) the stratified charge concept, all of which have high potential for meeting emission standards with acceptable fuel economy.

The AAPS program would be transferred to ERDA almost in its entirety. The fiscal year 1974 resource level includes \$7 million in obligations, \$9 million in outlays, and 12 permanent positions. An equal number of positions will remain in EPA to give EPA a continuing assessment capability which is necessary to the discharge of its regulatory responsibilities.

The program in emission control technology involves R & D to control emissions to the atmosphere, whether such emissions result (a) from burning fossil fuels to produce energy (notably generation of electricity and production of heat and process steam) or (b) from other processes (e.g., copper smelting, paper manufacture) which produce atmospheric pollutants. EPA would retain a significant technology assessment capability to enable it to discharge its regulatory responsibilities. The fiscal year 1974 resource level for the portion to be transferred includes \$6 million in obligations \$6 million in outlays, and 18 permanent positions.

The rest of the program would remain in EPA because it deals with control of emissions to the atmosphere other than those resulting from energy generation (e.g., electricity and process steam). The 1974 resource level associated with this portion of the program comprises \$9.4 million in obligations and 72 positions.

The above-described transferred functions will enable ERDA to get underway with a considerable array of our nation's best R & D talent and facilities. The AEC will bring to the new agency its extensive network of national laboratories and facilities valued at about \$9 billion, its broad-gauged scientific and technical expertise, and the benefit of its experience in managing large, innovative technological enterprises. Other transferred functions will contribute experts in fossil fuel development, automotive power systems, and additional fields. The amalgamation of these national assets will be a solid foundation for ERDA's swift expansion into every promising energy technology.

At the start, ERDA will have a gross outlay level of about \$3 billion and a personnel complex of 6,700. It will increase in size substantially as it mounts R & D efforts along many energy avenues.

Your committee regards the totality of ERDA's acquired functions as a good base. The transferred activities encompass many, but not all, of the Government's R & D efforts relating to sources of energy and utilization technology. In regard to so-called pure or basic research, your committee does not advocate that all such research that may be thought to have some relation to energy technologies be transferred to ERDA. That would be impractical, prejudicial to the conduct of worthwhile research generally, and detrimental to performance of important functions of other agencies.

Nor does your committee believe that each and every applied R & D task that may fall within the broad areas of responsibility described in section 103 of the bill must necessarily be under the direct aegis of ERDA. For example, EPA may well require, as directly incident to the proper discharge of its duties, the conduct of R & D for which it considers it must assume responsibility, though the work may fall within a broad energy area of interest to ERDA.

In regard to fossil fuels, your committee believes it is appropriate that R & D on near-term improvements in coal mining techniques and machinery continue to be performed under the direction of the Department of the Interior in view of the Department's interrelated statutory responsibilities for health and safety. On the other hand, the functions transferred to ERDA from the Department of the Interior, and ERDA's overall functions under this Act, will encompass the development of advanced improvement concepts in such areas.

Subject to these considerations, your committee urges that from time to time the R & D functions of the Government pertinent to ERDA's broad energy-related missions be reviewed with an eye toward determining which may be appropriately transferred to ERDA, pursuant to applicable law or by supplemental legislation. In any case, basic research and applied work of interest to more than one Federal agency must be continuously the subject of close coordination to avoid wasteful duplication and information gaps.

ERDA's AUTHORITY

The "Energy Reorganization Act of 1973" establishes a broad charter of authority for the exercise of ERDA's functions. It is your committee's judgment that, in regard to ERDA's non-nuclear functions, the Administrator should have a scope of authority under this bill, with a built-in range of flexibility, generally similar to that now applicable to the performance of the AEC's non-regulatory functions under the Atomic Energy Act of 1954, as amended, and other applicable laws.

In regard to nuclear activities, the provisions of the Atomic Energy Act of 1954, as amended, and other authority applicable to such nuclear activities, will continue to govern the performance of ERDA's functions, subject to the technical or perfecting modifications effected by the bill (e.g., the provisions of section 202 and subsection 301(a)). Your committee believes that the experience gained in administering and construing these statutes, starting more than 25 years ago, has served to create an extensive body of understanding of this legislative regime and a general sense of confidence in its inherent soundness. Your committee has reason to believe that the Joint Committee on Atomic Energy, in connection with its congressional responsibilities pursuant to chapter 17 of the Atomic Energy Act, shares this view.

There are several matters pertaining to ERDA's authority that your committee wishes to stress:

Definition of Research and Development

Your committee endorses the connotation of "research and development" delineated in the Atomic Energy Act of 1954, as amended, (and previously in the 1946 Act). Subsection 11x of that Act defines the term to mean "(1) theoretical analyses, exploration, or experimentation; or (2) the extension of investigative findings and theories of a scientific or technical nature into practical application for experimental and demonstration purposes, including the experimental production and testing of models, devices, equipment, materials and processes." In essence, the R & D spectrum extends from pure or basic research through demonstrations of commercial or industrial applicability.

Training and Limited Educational Activities

Your committee points out that ERDA is empowered to use the authority of chapter 4 of the Atomic Energy Act of 1954, as amended, in relation to non-nuclear as well as nuclear activities. This authority includes "training activities" of non-Government people. Additionally, chapter 4 has been construed to enable carefully-dimensioned educational programs. Your committee intends that ERDA will have similar discretion in its non-nuclear work.

Information and Transfer of Know-How

The provisions of the "Energy Reorganization Act of 1973" in regard to dissemination of information are intended to parallel and be consistent with the requirements of the Atomic Energy Act of 1954, as amended. If, for example, information or other matter constituting restricted data (as defined in subsection 11y. of the Atomic Energy Act) is encountered in non-nuclear activities, the provisions of the Atomic Energy Act of 1954, as amended, will remain applicable to all security aspects. The normal transfer of developed information to the private sector and to the public generally will continue. Every reasonable effort should be made to speed transfers to the public domain.

With respect to transfers of know-how and data to industry, small businesses, and others, to further possible interests outside of ERDA's programmatic spheres, your committee intends that ERDA be guided by the procedures employed by the AEC. They were carefully designed to preclude favoritism and unfair advantage; to provide a fair system for cost recovery; and to implement section 33 ("Research for Others") of the Atomic Energy Act of 1954, as amended, in an appropriate manner.

Contractual and Other Matters

The Administrator is empowered to make suitable arrangements for the conduct of R & D activities with private or public institutions or persons. This authority is similar to and compatible with the provisions of chapter 4 of the Atomic Energy Act of 1954, as amended. Public Law 85-934, the grant act, and other statutory authority also will be available for non-nuclear programs as they are for nuclear activities.

Thus, ERDA will be fully authorized to make arrangements on the outside—with individuals, industrial and commercial firms, educational institutions, public and private bodies, hospitals, not-for-profit companies, and other legal entities. In addition, ERDA will utilize the contractor-operated national laboratories included in the transfer from the AEC and those in-house capabilities of the Bureau of Mines included in the transfer from the Department of the Interior.

Your committee expects that the management and control of all of ERDA's activities will be firmly in the hands of the Administrator and his principal assistants. The agency must be adequately staffed with able executives, scientists, and engineers who are thoroughly qualified to supervise and evaluate performance and results. Management and control must not be contracted out.

Your committee further expects that ERDA's contracting procedures and practices, with relatively few exceptions, will commonly apply to both nuclear and non-nuclear activities. ERDA should be able to use to good advantage the types of cooperative arrangements,

inter-Federal agency agreements, special research agreements with educational institutions, and other commitments that the AEC has successfully employed.

Patents

The bill does not change existing patent laws. The provisions of chapter 13 ("Patents and Inventions") of the Atomic Energy Act of 1954, as amended, remain unaffected by the provisions of this bill.

In the course of hearings on this bill, a suggestion was made that ERDA should establish an office to help individual inventors or small companies by advising them whether their inventions or discoveries might be useful in connection with ERDA's missions. Your committee believes this suggestion may have merit and requests that the Administrator consider it.

Personnel

As previously stated, your committee stresses that all officers and personnel of ERDA should be selected on a best-qualified basis. Except for the officials appointed by the President, all officers and employees of ERDA, including all personnel transferred from other Government agencies, will be appointed, employed, and receive compensation fixed under the personnel system authorized by subsection 161d. of the Atomic Energy Act of 1954, as amended.

The intention of Congress underlying subsection 161d. was to assure that the AEC would have sufficient flexibility to attract personnel of the highest caliber for the effective conduct of large-scale, complex operations. This authority has helped create a merit employment system that provides fair and equitable treatment to employees and candidates for employment. Your committee urges that ERDA adhere rigorously to the application of this merit system.

Advisory Committee on Reactor Safeguards

The ACRS will remain with the Nuclear Energy Commission. It is intended, however, that the Administrator may call upon the ACRS to perform such of the activities contemplated by section 29 of the Atomic Energy Act of 1954, as amended, as relate to functions transferred from the AEC. Your committee also expects that the Nuclear Energy Commission will render advice to ERDA from time to time, as the Administrator may request.

Consultation and Coordination

In order for the Administrator to exercise central responsibility for policy planning as contemplated by the Act, it will be imperative, in your committee's judgment, that the Administrator be able to report directly to the President or to such energy policy officials or council as may be designated pursuant to applicable authority for such purpose.

The Administrator also will need to consult with industry representatives, with public agencies, and with others, from time to time, and to help others coordinate their energy-related R & D efforts with ERDA's programs.

Your committee wishes to make it clear that the Administrator, within the context of the powers and duties prescribed in the bill, and specifically under subsection 107(g), will have ample authority to consult with all relevant organizations, groups, and individuals, and

to establish such advisory mechanisms as he deems appropriate. Considering the multiple sources, potentials, institutions and enterprises for energy research and development, the Administrator will need, and undoubtedly will seek, advice from many informed sources.

NUCLEAR ENERGY COMMISSION

The licensing and related regulatory functions remain with the Commission, which is renamed the Nuclear Energy Commission. The Commission will continue to carry out those functions under pertinent provisions of the Atomic Energy Act of 1954, as amended, as specified in a separate section of this report.

The facilities of the development-operation side of the AEC are not subject to licensing and related regulatory provisions of the Atomic Energy Act. The development-operations programs have had exceptionally good health and safety experience. Notwithstanding this, your committee concluded that upon the separation of the functions of the AEC pursuant to this bill, it would be useful to provide for the licensing of ERDA-owned facilities in two respects: (1) nuclear demonstration reactors that would be operated as part of a utility's power generating facility; and (2) facilities used primarily for the receipt and storage of high-level radioactive wastes resulting from licensed activities. Your committee believes that this change in the Atomic Energy Act would be a logical amendment in view of the direct link with utility generating facilities.

Section 203 provides that the Nuclear Energy Commission "may engage in or contract for research which the Commission deems necessary for the discharge of its licensing and related regulatory functions."

Section 203 further provides that ERDA and other Federal agencies shall cooperate with NEC, and shall furnish, on a reimbursable basis, such research services as NEC deems necessary for the conduct of its functions. Your committee expects that every Federal agency will cooperate fully, and furnish such research skills and services consistent with its other responsibilities.

NEC also will have the broad authority of subsection 31a. and section 32 of the Atomic Energy Act for the performance of research.

The intent and purpose of the provisions applicable to NEC research are (1) to insure that the Commission has the capability to perform effectively its licensing and related regulatory functions with full regard to the public health and safety; and (2) to avoid costly duplication in facilities. Your committee believes that these objectives are compatible and manageable.

It is expected that the NEC will contract for most of its required research, exercising its independent judgment as to performance and results. Given the availability of extensive technical resources for research in the laboratories and industrial complexes associated with the activities to be managed and directed by ERDA, there should be little need for NEC to build laboratory facilities.

AUTHORIZATION OF APPROPRIATIONS

The bill does not alter the jurisdiction of any committee of the Congress. Section 304 of the bill provides for annual authorization of ap-

propriations, except as otherwise provided by law. The provisions of section 261 of the Atomic Energy Act of 1954, as amended, remain unaffected by the provisions of this bill. Accordingly, authorization for the functions transferred by the AEC and those remaining with the Nuclear Energy Commission will continue, as heretofore, pursuant to the provisions of section 261 of the Atomic Energy Act.

Your committee wishes to point out that an annual authorization pursuant to section 304 of this bill can include multi-year authorizations for specified projects or activities. In the committee's judgment, multi-year authorization would be desirable for certain types of cooperative arrangements and other projects. Your committee also recommends that, when large-scale joint or cooperative projects are to be undertaken, they be specifically authorized by the Congress. The annual authorization will be available for this purpose. Lesser projects can be reviewed, as appropriate, by the committee(s) of jurisdiction.

REPORTS

Subsection 306(a) of the bill provides for an annual comprehensive report by the Administrator to the President for submission to the Congress. The report will include a statement of the short-range and long-range goals, the priorities and plans of ERDA, and an assessment of the progress achieved toward their attainment. Your committee also expects that, from time to time, the report will contain recommendations for statutory changes and an account of administrative changes made within the Administrator's authority. It will be a continuing responsibility of the Administrator to appraise the organization and operations of his agency in the interest of improving performance.

Additionally, section 307 of the bill should assure that the Administrator will keep the appropriate congressional committees fully and currently informed with respect to all the Administrator's activities.

The provisions of the Atomic Energy Act of 1954, as amended, relative to reports and information to the Congress, remain unaffected by this bill. Such provisions continue to apply to the functions of the AEC transferred to ERDA as well as to those remaining with the Nuclear Energy Commission.

Your committee also recommends that, in the first year of operation, the Administrator develop a 10-year program to chart the course of energy research and development. The annual authorizations and appropriations will insure proper congressional participation. Annual reports, up-dating the program from year to year, should indicate the progress made in relation to the planned program, which will constitute the nation's strategy for achieving national self-sufficiency in energy.

The Administrator will take note, or course, of the report to the President submitted by Dr. Dixy Lee Ray, Chairman of the Atomic Energy Commission, on December 1, 1973. This report, entitled "The Nation's Energy Future," was prepared at the President's request and is pointed "toward the attainment of a capacity for energy self-sufficiency by 1980." The Administrator, of course, will use his own best judgment, illumined by the best intelligence and advice he can obtain, to determine whether, or in what manner, the aforementioned report

should be modified to accord with available resources, emerging opportunities, and responsibilities under the charter given by this bill.

ESTIMATED SAVINGS AND COSTS

Your committee requested the Office of Management and Budget to submit estimates of additional costs which could be expected as a result of this reorganization. Their response to the committee said, in part:

Estimated Savings

As a result of these program consolidations, it may be possible to effect some minor savings as a result of administrative and overhead efficiencies.

The real savings, however, will be realized by the American consumer in years to come as a result of advancing the state of energy technology to the point where our vast domestic reserves of fossil fuels, the processes of nuclear fusion and fast breeder reactors, and other advanced sources of energy such as solar and geothermal can be exploited to produce adequate amounts of clean energy at reasonable—rather than currently spiraling—costs. The savings to the American consumer that could result from the prompt establishment of a strong energy R & D agency such as ERDA literally amount to billions of dollars.

Estimated Costs

With regard to ERDA, the costs directly attributable to the reorganization are expected to be only those associated with administrative and management transitions such as office title changes, establishment of additional net positions authorized by H.R. 11510, new telephone books, etc. In all, these should not total more than \$1 million.

With regard to NEC, H.R. 11510 essentially has the effect of transferring AEC's R & D and production functions to ERDA, leaving the regulatory functions largely unaffected and to be carried on under a new agency name—the Nuclear Energy Commission. When ERDA is established, NEC will require some additional administrative support amounting to about 150 positions. The cost of this and other administrative adjustments is expected to be approximately \$3 million.

One additional cost of establishing NEC will result from the necessity of enhancing NEC's technical expertise in the areas of biomedical and environmental research and waste management and transportation. It is expected that Congress will be requested for up to \$5-\$10 million in NEC's first budget to undertake research in these areas.

In sum, according to OMB information, reorganizations authorized and directed by the bill may entail additional costs of approximately \$4 million, to be offset partly by minor savings in reduction of administrative costs by consolidation. The committee also is advised that additional yearly costs of \$4 million may be required for each of the following five fiscal years. This estimate is accepted by the committee as its own.

Since this is primarily a reorganization bill, and contains only general authorization authority, it does not, by its terms, commit the administrator or the Commission to specific expenditures for programs or activities. These will be authorized in separate legislation.

PROVISIONS OF THE ATOMIC ENERGY ACT APPLICABLE TO FUNCTIONS TRANSFERRED FROM THE AEC AND TO FUNCTIONS REMAINING IN NEC

The Energy Research and Development Administration and the Nuclear Energy Commission, will utilize authorities provided by the Atomic Energy Act of 1954, as amended. Since the bill entails a separation of functions to be administered separately by these two agencies, it follows that certain provisions of the Atomic Energy Act will be applicable to each agency. The following analysis shows the distribution of separately and jointly applicable authorities under that Act.

I. The following provisions of the Atomic Energy Act of 1954, as heretofore amended, apply only to ERDA

- Subsection 31b. (certain grants and contributions).
- Section 33 ("Research for Others").
- Chapter 5 ("Production of Special Nuclear Material").
- Subsections 53c; 53d; and 53f. (distributing special nuclear material).
- Section 54 ("Foreign Distribution of Special Nuclear Material").
- Section 56 ("Guaranteed Purchase Prices").
- Section 58 ("Review").
- Subsection 63c. (charges for distributing source material).
- Section 64 ("Foreign Distribution of Source Material").
- Section 67 ("Operations on Lands Belonging to the United States").
- Section 91 ("Authority").
- Section 142 ("Classification and Declassification of Restricted Data").
- Section 143 ("Department of Defense Participation").
- Subsections 144a; 144b; and 144c. (international cooperation).
- Subsections 151c; 151d; 151e. (certain patent aspects).
- Section 153 ("Nonmilitary Utilization").
- Section 154 ("Injunctions").
- Section 157 ("Commission Patent Licenses").
- Subsections 161e; 161m; 161r; 161t; 161u; and 161v. (general provisions).
- Section 164 ("Electric Utility Contracts").
- Section 167 ("Claims Settlements").

II. The following provisions of the Atomic Energy Act of 1954, as heretofore amended, apply only to NEC

- Subsection 53b. (minimum criteria for licenses).
- Subsection 53e. (licensing conditions).
- Section 62 ("License for Transfers Required").
- Subsection 63b. (minimum criteria for licenses).
- Section 69 ("Prohibition").
- Section 101 ("License Required").
- Section 102 ("Utilization and Production Facilities for Industrial or Commercial Purposes").

Section 103 ("Commercial Licenses").
Section 104 ("Medical Therapy and Research and Development").
Subsection 105c (licensing antitrust review).
Section 106 ("Classes of Facilities").
Section 107 ("Operators' Licenses").
Section 109 ("Component Parts of Facilities").
Subsection 161h. (licensing activities).
Subsection 161w. (licensing charges).
Section 182 ("License Applications").
Section 183 ("Terms of License").
Section 184 ("Inalienability of Licenses").
Section 185 ("Construction Permits").
Subsections 186a. and 186b. (license revocation).
Section 187 ("Modification of License").
Section 190 ("Licensee Incident Reports").
Section 191 ("Atomic Safety and Licensing Board").
Section 192 ("Temporary Operating License").
Section 272 ("Applicability of Federal Power Act").
Section 273 ("Licensing of Government Agencies").
Section 274 ("Cooperation with States").

III. The following provisions of the Atomic Energy Act of 1954, as heretofore amended, generally apply, respectively, to the functions of the Administrator and to NEC

Chapter 1 ("Declaration, Findings and Purpose").

Chapter 2 ("Definitions"); provided that (i) the determinations and criteria in j. (extraordinary nuclear occurrences) shall be the responsibility of the Administrator only in regard to activities and matters not covered by the licensing and related regulatory facets of Section 170 of the Atomic Energy Act, as amended, and (ii) the determinations in v. (production facility), z. (source material), aa. (special nuclear material), and cc. (utilization facility), shall be the responsibility of the Administrator only in regard to facilities and materials not subject to licensing and related regulatory control by NEC.

Chapter 3 ("Organization"); except (i) as provided for in this bill, (ii) the Inspection Division established by subsection 25c. will remain in NEC, and the ERDA Administrator also will provide for the discharge of the inspection function under subsection 25c. in ERDA, (iii) in regard to section 29 ("Advisory Committee on Reactor Safeguards"), it is intended that the ACRS remain with NEC but that the ACRS also be made available to ERDA as the Administrator may request to perform such of the activities contemplated by section 29 as relate to functions transferred to the Administrator.

Subsections 31a; 31c; and 31d. (research assistance), and Section 32 ("Research By the Commission").

Section 51; provided, that the respective determinations shall be made as indicated in Chapter 2 above.

Subsection 53a; provided, that subdivisions (ii) and (iii) of said subsection (distributing and making available special nuclear material) shall apply only to ERDA, and subsection (i) (licenses) shall apply only to NEC.

Section 55 ("Acquisition").

Section 57 ("Prohibition").

Section 61 ("Source Material"); provided, that the respective determinations shall be made as indicated in Chapter 2 above).

Subsection 63a. (source material); provided, that the authority to distribute shall apply only to ERDA and the authority to license shall apply only to NEC.

Section 65 ("Reporting").

Section 66 ("Acquisition").

Section 68 ("Public and Acquired Lands").

Section 81 ("Domestic Distribution"), and Section 82 ("Foreign Distribution of Byproduct Material"); provided, that the authority to distribute shall apply only to ERDA and the authority to license shall apply only to NEC.

Section 92 ("Prohibition").

Subsections 105a. and 105b. (Antitrust provisions and reporting).

Section 108 ("War or National Emergency").

Section 110 ("Exclusions"); it should be noted that subsection 110a. is amended by section 202 of the bill.

Chapter 11 ("International Activities"); provided, that, except for licensing and regulatory aspects, the implementation of these provisions shall be the responsibility of ERDA.

Section 141 ("Policy"); provided, that the implementation of subsection 141a. shall be the responsibility of ERDA.

Subsection 144d. (Presidential authorization).

Section 145 ("Restrictions"); except that only the Administrator shall establish the basic standards and procedures for the safeguarding of the national defense and security.

Section 146 ("General Provisions").

Subsections 151a and 151b. (certain inventions and discoveries).

Section 152 ("Inventions Made or Conceived During Commission Contracts").

Section 155 ("Prior Art").

Section 156 ("Commission Patent Licenses").

Section 158 ("Monopolistic Use of Patents").

Section 159 ("Federally Financed Research").

Section 160 ("Saving Clause").

Subsections 161a., 161b., 161c., 161d., 161f., and 161g. (general authority).

Subsection 161i. and 161j. (certain regulations or orders and dispositions); provided, that the Administrator shall establish the basic standards and procedures respecting the national security.

Subsections 161k. (firearms), 161n. (delegations), 161o. (reports and records), 161p. (rules and regulations), 161q. (rights-of-way), and 161s. (succession of authority).

Section 162 ("Contracts").

Section 163 ("Advisory Committees").

Section 165 ("Contract Practices").

Section 166 ("Comptroller General Audit"); it should be noted that section 305 of the bill also makes this section applicable to ERDA's contracts for non nuclear activities.

Section 168 ("Payments in Lieu of Taxes").

Section 169 ("No Subsidy").

Section 170 ("Indemnification and Limitation of Liability").

Chapter 15 ("Compensation for Private Property Acquired").

Section 181 ("General").

Subsection 186c. (Retaking and Recapture); provided that the Administrator shall establish the basic standards and procedures in regard to safeguarding the national defense and security.

Section 188 ("Continued Operation of Facilities"); provided, that findings and judgments respecting the production program shall be the responsibility of the Administrator.

Section 189 ("Hearings and Judicial Review").

Chapter 17 ("Joint Committee on Atomic Energy").

Chapter 18 ("Enforcement"); except for Section 234 ("Civil Monetary Penalties for Violation of Licensing Requirements") which is applicable only to NEC.

Section 241 ("Transfer of Property").

Section 251 ("Report to the Congress").

Section 261 ("Appropriations").

Section 271 ("Agency Jurisdiction").

Section 281 ("Separability") and Section 291 ("Short Title").

SECTION-BY-SECTION ANALYSIS

Section 1 states that this Act may be cited as the "Energy Reorganization Act of 1973."

Section 2 is concerned with declarations and findings.

Subsection 2(a) sets forth a congressional declaration that the general welfare and the common defense and security require effective action to develop all energy sources and increase the efficiency and reliability of energy use. The purposes to be served are (1) meeting the needs of future generations, (2) increasing the productivity of the national economy and its international trade position, (3) making the nation self-sufficient in energy, (4) restoring, protecting, and enhancing environmental quality, and (5) assuring public health and safety.

Subsection (b) states a congressional finding that, to best achieve the objectives of this Act, it is necessary to establish an Energy Research and Development Administration to bring together and direct Federal activities relating to research and development on the various sources of energy, to increase the efficiency and reliability of use of energy, and to carry out the performance of other functions, including the Atomic Energy Commission's military and production activities.

Subsection (c) sets forth a congressional declaration and finding that it is in the public interest that the licensing and related regulatory functions of the Atomic Energy Commission be separated from the performance of other functions of the Commission, which are transferred by this Act to the Energy Research and Development Administration. The Congress finds it is in the public interest that this separation of functions be effected in an orderly manner assuring adequacy of resources for their performance by each segment.

TITLE I

ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION

Section 101 establishes the Energy Research and Development Administration as an independent executive agency.

Section 102 prescribes the top officer positions.

Subsection 102(a) provides that the Administration will be headed by an Administrator appointed by the President by and with the advice and consent of the Senate, to be compensated at the level II rate of the Executive Schedule. He will be responsible for the efficient and coordinated management of the Administration.

Subsection 102(b) provides for a Deputy Administrator to be appointed by the President with Senate confirmation, and to be compensated at level III of the Executive Schedule.

Subsection 102(c) provides for appointment by the President, with Senate confirmation of five Assistant Administrators responsible, respectively, for (1) fossil energy, (2) nuclear energy, (3) environment, safety and conservation, (4) research and advanced energy systems, and (5) national security. These appointees will be compensated at level IV of the Executive Schedule.

Subsection 102(d) provides for the appointment of a General Counsel by the Administrator. The General Counsel will serve at the pleasure of the Administrator and be compensated at level V of the Executive Schedule.

Subsection 102(e) authorizes the Administrator to appoint not more than seven additional officers who will be compensated at level V of the Executive Schedule. These will be career positions and be subject to subsection 161 d. of the Atomic Energy Act, which authorizes appointment of officers and employees.

Subsection 102(f) provides for appointment by the Administrator of a Director of Military Application to head the Division of Military Application transferred to the Administration by subsection 104(b) of this Act. The Director of Military Application will be an active member of the Armed Forces serving in general or flag officer rank or grade, as appropriate, with the same functions, qualifications, and compensation as are now provided in the Atomic Energy Act for the Assistant General Manager of AEC for Military Application. The Director of Military Application will serve at the pleasure of the Administrator.

Subsection 102(g) provides that officers appointed pursuant to this section will perform such functions as the Administrator specifies from time to time.

Subsection 102(h) provides that the Deputy Administrator shall act for the Administrator in the event of a vacancy in the office of the Administrator or in the event of the absence or disability of the Administrator, and states that the Administrator shall establish the further order of succession.

Section 103 prescribes eight categories included in the Administrator's responsibilities, as follows:

- (1) exercising central responsibility for policy planning, coordination, support, and management of research and development programs respecting all energy sources, including assessing the requirements for research and development in regard to various energy sources in relation to near-term and long-range needs, policy planning in regard to meeting those requirements, undertaking programs for the optimal development of the various forms of energy sources, managing such programs, and disseminating resulting therefrom;

(2) encouraging and conducting research and development to demonstrate the commercial feasibility and practical applications of energy sources and utilization technologies;

(3) undertaking research and development in the extraction, conversion, storage, transmission, and utilization phases related to the development and use of energy from fossil, nuclear, solar, geothermal and other energy sources;

(4) engaging in and supporting environmental, biomedical, physical, and safety research related to the development of energy sources and utilization technologies;

(5) taking into account the existence, progress and results of other public and private research and development activities relevant to the Administrator's mission in formulating his research and development programs;

(6) participating in and supporting cooperative research and development projects which may involve contributions by public or private persons or agencies of financial or other resources to the performance of the work;

(7) developing, collecting, distributing, and making available for distribution, scientific and technical information concerning the manufacture or development of energy and its efficient extraction, conversion, transmission and utilization; and

(8) encouraging and conducting research and development for the conservation of energy.

Section 104 specifies the functions and units transferred to the Administrator and the Administration from other departments or agencies.

Subsection 104(a) transfers all functions of the Atomic Energy Commission, the Chairman and members of the Commission, and the Commission's officers and components, except as otherwise provided in this Act.

Subsection 104(b) preserves and includes in the transfer the General Advisory Committee, the Patent Compensation Board, and the Divisions of Military Application and Naval Reactors; and it preserves the relationship with the Military Liaison Committee.

Illustrative of the functions transferred by subsections 104 (a) and (b) from AEC are research and development relating to nuclear and other energy sources, energy utilization and related environmental and safety aspects; military applications of atomic energy such as development and production of nuclear weapons; production of nuclear materials; research in the physical and biomedical sciences; international cooperation for the utilization and safeguarding of nuclear materials; dissemination of scientific and technical information; and administration of a program for indemnification of contractor liability for damages from nuclear incidents.

In effect, section 104, in conjunction with section 201, separates the licensing and related regulatory functions of the Atomic Energy Commission from the development, production, research, and other remaining functions of the Commission, and transfer all the functions not part of licensing and related regulation to the Administrator. Pertinent provisions of the Atomic Energy Act of 1954, as heretofore amended and as modified in several technical or perfecting respects by the provisions of this Act, will continue to be applicable, respec-

tively, to such transferred functions and to the licensing and related regulatory functions remaining in the Nuclear Energy Commission.

Subsection 104(c) transfers certain functions of the Secretary of the Interior, the Department of the Interior and offices and components thereof as follows:

Paragraph (1) transfers the functions relating to the Office of Coal Research (OCR), which was established pursuant to the Act of July 1, 1960 (30 U.S.C. 661-668). Through contracts with outside organizations, OCR sponsors research and development involving principally the conversion of coal to other agency forms, such as liquid hydrocarbons, clean fuel gas, substitute pipeline gas, and direct electric power.

Paragraph (2) transfer certain functions conducted by the Bureau of Mines (established as set out in 30 U.S.C. 1-7) that are directed toward fossil fuel energy research and development. The six research centers included in this transfer are located in Bartlesville, Oklahoma; Grand Forks, North Dakota; Laramie, Wyoming; Morgantown, West Virginia; Pittsburgh, Pennsylvania; and San Francisco, California. A synthane pilot plant, for coal gasification, now under construction, is included with the transferred facilities. The energy research programs of the Bureau of Mines include the conversion of coal into gas, nonpolluting oil and metallurgical coke; the magnetohydrodynamic generation of power; the *in situ* production of oil from oil shale; and the improved recovery of oil and natural gas.

Paragraph (3) transfers the existing program of underground electric power transmission research under the direction of the Secretary of the Interior.

Subsection 104(d) transfers from the National Science Foundation (NSF) functions relating to development of solar heating and cooling of buildings and of geothermal power. The NSF, under its general statutory authorization (42 U.S.C. 1682), has been supporting basic and applied research through proof of concept experimentation in these areas in preparation for prototype development and demonstration of functioning systems. The Administrator will assume responsibility under this subsection for programs in these development and demonstration areas. Subsection (c) is not intended to modify the existing authority of the NSF in basic and applied research.

Subsection 104(e) transfers functions of the Environmental Protection Agency (EPA) and the officers and components thereof which relate to or are utilized in connection with the development and demonstration of alternative automotive power systems and the development and demonstration of precombustion, combustion and postcombustion technologies to control emissions of pollutants, such as sulfur oxides, oxides of nitrogen and particulates, from stationary sources using fossil fuels. EPA's authority in this area is derived mainly from the Clean Air Act (42 U.S.C. 1857-1857l). EPA will retain its Michigan test facility for automotive emissions and the technology-assessment staff and consultants needed in setting standards and monitoring technological developments.

Subsection 104(f) is a technical provision designed to permit the Administrator, to the extent necessary or appropriate to perform transferred functions, to exercise authority available by law, including appropriation acts, to the official or agency from which the functions

were transferred. This does not divest the transferring agency of the authority with respect to the functions retained by that agency.

Subsection 105(a) provides that personnel, personnel positions, assets, liabilities, contracts, property, records, and unexpended balances of appropriations, authorizations, allocations, and other funds relating to functions transferred by this Act follow and are transferred with those functions. Appropriations transferred will be accounted for in accordance with section 202 of the Budget and Accounting Procedures Act of 1950 (31 U.S.C. 581c), which normally governs transfers of this type. Personnel positions expressly created by law, personnel occupying those positions on the effective date of this Act, and personnel authorized to receive compensation at one of the rates prescribed for level II, III, IV, or V of the Executive Schedule (5 U.S.C. 5313-5316) will be subject to the provisions of subsection 105(c) and section 301.

Subsection 105(b) provides that nontemporary personnel, other than personnel entitled to compensation under the Executive Schedule, shall not be separated or reduced in grade or compensation, as a result of the enactment of this Act, for one year after being transferred to the Administration created pursuant to this Act. This provision is designed to preclude reduction in force solely as a result of this Act for one year after the transfer. However, this provision would not preclude separation or reduction for cause or any other circumstance applicable if this Act had not been enacted.

Subsection 105(c) provides that a person entitled to compensation under the Executive Schedule may be employed by the new Administration and that, if the employment is without break in service and if the duties of the new position are comparable to the duties performed immediately preceding the new appointment, such person will be entitled to receive compensation at a rate not less than he received in his previous position.

Section 106 contains administrative provisions.

Subsection 106(a) authorizes the Administrator to prescribe appropriate policies, standards, criteria, procedures, rules and regulations.

Subsection 106(b) provides that the Administrator shall engage in policy planning and perform program analyses and other studies to promote the efficient and coordinated administration of his agency and to assess its progress.

Subsection 106(c) authorizes the Administrator to delegate, and authorize redelegations of, any of his functions.

Subsection 106(d) authorizes the Administrator to organize the Administration as he deems appropriate, except for the organizational elements specified in section 102 and subsection 104(b).

Subsection 106(e) authorizes the Administrator to establish and discontinue field offices.

Subsection 106(f) authorizes the Administrator to prescribe a seal for the Administration.

Subsection 106(g) authorizes the establishment of a working capital fund by the Administrator to defray necessary expenses arising out of the maintenance and operation of common administrative services.

Subsection 106(h) authorizes executive agencies to furnish the Administrator information or other data.

Section 107 deals with personnel.

Subsection 107(a) authorizes the Administrator to employ officers and employees and fix their compensation pursuant to subsection 161 d. of the Atomic Energy Act (42 U.S.C. 2201(d)).

Subsection 107(b) authorizes the Administrator to obtain the services of experts and consultants.

Subsection 107(c) authorizes the Administrator to arrange by agreement with the Secretaries of the Military Departments for participation of military personnel in the performance of his functions, excluding appointments subject to Senate confirmation.

Subsection 107(d) provides that the status and benefits of military persons shall not be adversely affected by service under subsection (c).

Subsection 107(e) authorizes payment of transportation expenses and per diem to temporary or seasonal employees. Such payments will be made in accordance with chapter 57 of title 5 of the United States Code which governs similar payments to other Government employees for official travel.

Subsection 107(f) authorizes the Administrator to utilize, on a reimbursable basis, the services of personnel made available by any Executive agency.

Subsection 107(g) authorizes the Administrator to establish advisory boards in accordance with the provisions of the Federal Advisory Committee Act (5 U.S.C. App. I, 1970 ed., Supp. II).

Subsection 107(h) authorizes the Administrator to employ non-citizens in technical or professional capacities.

Section 108 sets forth the basic statutory powers of the Administrator.

Subsection 108(a) authorizes the Administrator to insure continued research and development in the interest of expanding scientific, technical and practical knowledge in energy matters, to make arrangements (including contracts, agreements, and loans) for the conduct of research and development activities with private or public institutions or persons, including joint projects of a research, developmental or experimental nature. The Administrator is authorized to make payments (in lump sum or installments, and in advance or by way of reimbursement, with necessary adjustments on account of overpayments or underpayments) and generally to take such steps as he deems necessary or appropriate to perform his functions. Functions applicable to the nuclear activities transferred by title I of this Act will be subject to the provisions of the Atomic Energy Act of 1954, and to other authority applicable to such activities. The nonnuclear responsibilities and functions transferred by this Act will be carried out pursuant to the provisions of this Act, the authorities applicable to those functions immediately before the effective date of this Act, or in accordance with chapter 4 of the Atomic Energy Act (42 U.S.C. 2051-2053).

Subsection 108(b) authorizes the Administrator to acquire facilities required for the maintenance and operation of laboratories, research, and testing sites and facilities, quarters, and related accommodations for employees and their dependents, and such other special purpose real property as the Administrator may deem necessary. Special purpose facilities and real property may be acquired by purchase, lease, condemnation, or otherwise. General purpose facilities and real property needs will continue to be met through the authority of the General

Services Administration. The Federal Government will take title to all property acquired pursuant to this section.

Subsection 108(c) authorizes the Administrator to provide, construct, or maintain, as necessary and when otherwise unavailable, certain facilities and services for employees and their dependents at remote locations. Included are emergency medical services and supplies; food and subsistence supplies; messing facilities; audio-visual equipment, accessories, and supplies for recreation and training; reimbursement to such employees for furnishing food, medicine and other supplies for temporary relief of distressed persons; living and working quarters and facilities; and transportation for school-age dependents to the nearest appropriate educational facilities. Reimbursement at reasonable prices will be required for medical treatment and services and supplies furnished to employees and their dependents.

Subsection 108(d) authorizes the Administrator to acquire copyrights and patents, design processes, specifications and data.

Subsection 108(e) requires the Administrator, subject to 42 U.S.C. 2161-2166 and other applicable law, to disseminate scientific, technical and practical energy information acquired pursuant to this Act. Other applicable law would include the Freedom of Information Act. He is required also to encourage the dissemination of such information by others so as to provide for the free exchange of ideas and criticism.

Subsection 108(f) authorizes the Administrator to accept, hold, administer, and utilize gifts and bequests.

TITLE II

NUCLEAR ENERGY COMMISSION

Section 201 provides that the Atomic Energy Commission (AEC) shall be renamed the Nuclear Energy Commission (NEC). The Commission will continue to perform the licensing and related regulatory functions which the AEC, its Chairman, members, officers and components performed prior to the effective date of this Act. These functions, officers, components and personnel are excepted from the transfer of AEC functions provided in section 104 of this Act. The Atomic Safety and Licensing Board and Atomic Safety and Licensing Appeal Board panels (42 U.S.C. 2241), the Advisory Committee on Reactor Safeguards (42 U.S.C. 2039), and the Inspection Division, will remain with the Commission. Section 104, read in conjunction with this section, places in separate agencies the regulatory and nonregulatory functions now exercised by the AEC.

The Advisory Committee on Reactor Safeguards will conduct safety reviews of ERDA nuclear activities and facilities as requested by the Administrator.

Section 202 gives the Nuclear Energy Commission authority to license selected Administration facilities pursuant to chapters 6, 7, 8, and 10 of the Atomic Energy Act. Thus, it is empowered to license (1) demonstration liquid metal fast breeder reactors when used as part of the power generation facilities of an electric utility system, (2) other demonstration nuclear reactors when operated as a part of an electric utility system, except those in existence, under construction, or authorized or appropriated for by the Congress on the date this

Act becomes effective, or (3) facilities used primarily for the receipt and storage of high level radioactive wastes resulting from activities licensed under the Atomic Energy Act, except those in existence, under construction, or authorized or appropriated for by the Congress on the date this Act becomes effective.

Section 203 prescribes the Commission's research authority and relationships with the Administration and other Federal agencies.

Subsection 203 (a) specifically confirms the authority of NEC to engage in or contract for research which NEC deems necessary for the discharge of its licensing and regulatory functions. Functions of originating or developing new designs and technologies are transferred to the Administration by subsection 104 (a) of this Act.

Subsection 203 (b) authorizes the Administration and other Federal agencies to conduct such research for NEC as the Commission may request in connection with the performance of its functions and to cooperate in the establishment of priorities for furnishing such research services.

TITLE III

TRANSITIONAL PROVISIONS

Section 301 contains customary transitional provisions.

Subsection 301 (a) provides that, except as otherwise provided in the Act, whenever all of the functions of an agency, or other body, or of any component thereof, have been transferred by title I of this Act, the agency or other body or component shall lapse. This, in effect, discontinues organizational structures when they no longer have functions to perform. It applies only when all of the functions of the agency or component have been transferred to the Administrator. The subsection also provides that all Executive Schedule officers and statutory positions in an agency or component that lapses under the first sentence of the section also shall lapse.

Subsection 301 (b) is a savings clause that continues the effectiveness of all existing orders, determinations, rules, regulations, permits, contracts, certificates, licenses, and privileges affected by this Act, until such time as they are otherwise modified or replaced by appropriate authority or otherwise expire. This avoids any inadvertent lapsing or impairment of essential Executive orders, directives, documents, and obligations, and will afford the President, the Administrator, or other officials sufficient time to deal with these matters in an orderly fashion.

Subsection 301 (c) is another savings clause that preserves and continues administrative proceedings in being on the effective date of the Act. These proceedings will, in effect, be continued, modified, or terminated as if the Act had never been enacted.

Subsection 301 (d) is a savings clause that permits suits commenced prior to the date of this Act to be continued and conducted as if this Act had not been enacted.

Subsection 301 (e) protects suits, actions or other proceedings from abatement by reason of enactment of this Act. In any litigation pending when these actions take effect, the court may enter an appropriate order which will give effect to these savings provisions.

Subsection 301(f) provides for proper substitution of parties in connection with the continuation of litigation pending on the date this Act becomes effective.

Subsection 301(g) makes final orders and actions of any transferred official or component subject to judicial review as if this Act had not been enacted.

Subsection 301(h) provides that with respect to functions transferred by the Act, references in laws to other officials shall be deemed to be a reference to the Administrator, or other officials, as appropriate.

Subsection 301(i) provides that any existing authority of the President is not affected by this Act.

Subsection 301(j) provides that reference in this Act of provisions of law shall be deemed to include, as appropriate, reference thereto as amended or supplemented before or after the effective date of this Act. This avoids repetitious use of the phrases "as amended" or "as supplemented."

Subsection 301(k) makes clear that except as otherwise expressly provided in this Act, authority provided by this Act is in addition to, and not in substitution for, any existing authority transferred by this Act.

Section 302 authorizes the Director of the Office of Management and Budget to make such additional incidental dispositions of personnel, personnel positions, assets, liabilities, contracts, property, records, appropriations, etc., as may be necessary to carry out the intent and purpose of this Act.

Section 303, to avoid repetitious references, defines "function," "functions," "perform" and "performance" to include such terms as duties, obligations, powers, authorities, responsibilities, rights, privileges, and activities, and the exercise thereof.

Section 304 provides that except as otherwise provided by law, appropriations made under this Act shall be subject to annual authorization.

Section 305 applies to nuclear and nonnuclear activities the present provisions of section 166 of the Atomic Energy Act for audit and access to records by the Comptroller General with respect to contracts.

Section 306 contains reporting provisions.

Subsection 306(a) requires the Administrator to transmit to the President for submission to the Congress an annual report on his agency's activities. The report is to include a statement of the short-range and long-range goals, priorities, and plans of the Administrator, together with an assessment of the progress made toward attainment of these objectives and toward the more effective and efficient management of the Administration and coordination of its functions.

Subsection 306(b) requires the Administrator, in collaboration with the Secretary of Defense, to conduct a thorough review of the desirability and feasibility of transferring to the Department of Defense or other Federal agencies the functions of the Administrator respecting Military application and restricted data. This review is to be made, and a report sent to the President for submission to the Congress, within one year after the Administrator takes office. The report will set forth the Administrator's comprehensive analysis, the principal alternatives, and the specific recommendations of the Administrator and the Secretary of Defense.

Section 307 provides that the Administrator shall keep the appropriate congressional committees fully and currently informed with respect to all of the Administration's activities.

Section 308 permits the Administrator, when authorized in an appropriation act, to make transfers of funds from one appropriation to another within his agency, but no appropriation shall be either increased or decreased by more than 5 percent.

Section 309 is a technical, conforming amendment covering the Executive Schedule compensation pertaining to this Act.

Section 310 is a standard separability provision that avoids the invalidation of the remaining provisions of this Act in the event that a single provision is found to be invalid.

Section 311 provides for an effective date and interim appointments.

Subsection 311(a) provides that this Act shall become effective 120 days after the Administrator is appointed, or on such earlier date as the President may prescribe and publish in the Federal Register. This will give the President time to select, nominate, and appoint the Administrator, and will give the Administrator sufficient time to arrange and organize the new Administration and prepare such rules, regulations, orders, etc., as may be necessary for a smooth transition. Prior to the effective date, the regulatory arm of the present Atomic Energy Commission will be provided with sufficient resources to enable it to perform its functions within the framework of a wholly separate organization.

Subsection 311(b) provides that, if an officer, subject to Senate confirmation under this Act has not entered upon his office on the effective date of the Act, the President may designate any officer who was appointed by and with the advice and consent of the Senate and who was such an officer immediately prior to the effective date of the Act, to act in such office temporarily. An officer thus designated would draw pay at the rate provided in this Act for the position filled by him under this subsection.

TITLE IV

BAR AGAINST SEX DISCRIMINATION

Section 401 bars sex discrimination in connection with any license, activity, or Federal assistance under this Act.

CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

In compliance with clause 3 of rule XIII of the Rules of the House of Representatives, changes in existing law made by the bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, existing law in which no change is proposed is shown in roman) :

TITLE 5, UNITED STATES CODE

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CHAPTER 53—PAY RATES AND SYSTEMS

* * * * *

SUBCHAPTER II—EXECUTIVE SCHEDULE PAY RATES

* * * * *

§ 5313. Positions at level II

Level II of the Executive Schedule applies to the following positions, for which the annual rate of basic pay is \$42,500:

(1) * * *

* * * * *

(8) Chairman, [Atomic] Nuclear Energy Commission.

* * * * *

(22) Administrator of Energy Research and Development.

§ 5314. Positions at level III

Level III of the Executive Schedule applies to the following positions, for which the annual rate of basic pay is \$40,000:

(1) * * *

* * * * *

(42) Members, [Atomic] Nuclear Energy Commission.

* * * * *

(60) Deputy Administrator, Energy Research and Development Administration.

§ 5315. Positions at level IV

Level IV of the Executive Schedule applies to the following positions, for which the annual rate of basic pay is \$38,000:

(1) * * *

* * * * *

[(50) General Manager of the Atomic Energy Commission.]

* * * * *

(99) Assistant Administrators, Energy Research and Development Administration (5).

§ 5316. Positions at level V

Level V of the Executive Schedule applies to the following positions, for which the annual rate of basic pay is \$36,000:

(1) * * *

* * * * *

[(29) Assistant General Manager, Atomic Energy Commission.]

* * * * *

(62) Executive Director of [Regulation, Atomic] Operations, Nuclear Energy Commission.

* * * * *

39
【(69) Deputy General Manager, Atomic Energy Commission.】

* * * * *

(81) General Counsel of the 【Atomic】 *Nuclear Energy Commission.*

* * * * *

【(102) Assistant General Managers, Atomic Energy Commission (2).】

* * * * *

(133) *General Counsel, Energy Research and Development Administration.*

(134) *Additional officers, Energy Research and Development Administration (7).*

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A P P E N D I X E S

APPENDIX 1.—SPONSORS OF H.R. 11510 AND IDENTICAL OR SIMILAR LEGISLATION

H.R. 11510.—Mr. Holifield, Mr. Horton, Mr. Price (Illinois), and Mr. Hosmer.

H.R. 11646.—Mr. Minshall.

H.R. 11683.—Mr. Wydler.

H.R. 11731.—Mr. Brooks, Mr. Fountain, Mr. Jones (Alabama), Mr. Moss, Mr. Fascell, Mr. Macdonald, Mr. Moorhead (Pennsylvania), Mr. Randall, Mr. Wright, Mr. St Germain, Mr. Culver, Mr. Fuqua, Mr. Donohue, Mr. James V. Stanton, Mr. Ryan, Mr. Erlenborn, Mr. Wydler, Mr. Brown (Ohio), Mr. Vander Jagt, Mr. Gude, and Mr. McCloskey.

H.R. 11732.—Mr. Young (Texas), Mr. Anderson (Illinois), Mr. Hansen (Idaho), Mr. Lujan, Mr. Johnson (California), Mr. Corman, Mr. Hawkins, Mr. Leggett, Mr. Roybal, Mr. Brown (California), Mr. Anderson (California), Mr. Danielson, Mr. Don H. Clausen, Mr. Camp, Mr. Coughlin, Mr. Sebelius, Mr. Ketchum, Mr. Martin (North Carolina), Mr. Towell, and Mr. Young (Alaska).

H.R. 11733.—Mr. Buchanan, Mr. Thone, Mr. Mallary, Mr. Parris, Mr. Regula, Mr. Hinshaw, Mr. Steelman, Mr. Pritchard, and Mr. Hanrahan.

H.R. 11783.—Ms. Abzug.

[NOTE.—This list shows 57 cosponsors. The names of Mr. Holifield, Mr. Horton, Mr. Price (Illinois), and Mr. Hosmer also appear on H.R. 11731, H.R. 11732, and H.R. 11733, but are not repeated on this list for clarity.]

APPENDIX 2.—EXPLANATION OF PERSONNEL
PROVISIONS OF H.R. 11510

The provisions of H.R. 11510 pertaining to personnel administration in ERDA and NEC provide for the continuation of the excepted personnel system authorized by section 161d. of the Atomic Energy Act, as amended. In this regard, section 107(a) of the bill authorizes the Administrator "to select, appoint, employ, and fix the compensation of such officers and employees, including attorneys, pursuant to section 161d. of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2201(d)) as are necessary to perform the functions now or hereafter vested in him and to prescribe their functions."

The continuation of the excepted personnel system of the Atomic Energy Act, of course, will have no new impact on those employees who will transfer from AEC to ERDA or who will continue their employment in NEC. Employees of the Department of Interior, NSF and EPA who would be transferred to ERDA would, at the same time, be transferred from the competitive civil service system to the excepted personnel system of ERDA under the authority of section 107(a) of H.R. 11510. Although there are significant systems differences between the competitive civil service system and the personnel system authorized by section 161d. of the Atomic Energy Act, both systems impact on individual employees in terms of rights, protections, and benefits in much the same way, as amplified below.

Individual employees transferred to the excepted personnel program for ERDA or NEC, therefore, would not relinquish any of their basic rights of benefits as Federal employees. There would be available to them in ERDA and NEC, however, the added benefits provided by the AEC's merit employment system. In addition, section 105(b) of H.R. 11510 provides that "transfer of nontemporary personnel pursuant to this Act shall not cause any such employee to be separated or reduced in grade or compensation for one year after such transfer." Section 105(c) provides a somewhat similar protection for those officers paid in accordance with the Executive Salary Schedule: "Any person who, on the effective date of this Act, held a position compensated in accordance with the Executive Schedule prescribed in chapter 53 of title 5 of the United States Code, and who, without a break in service, is appointed in the Administration to a position having duties comparable to those performed immediately preceding his appointment shall continue to be compensated in his new position at not less than the rate provided for this previous position."

EMPLOYMENT UNDER THE EXCEPTED PERSONNEL SYSTEM OF SECTION
161d. OF THE ATOMIC ENERGY ACT

Employee Pay.—There would be no change in the pay received by Federal employees transferred to ERDA or NEC. ERDA and NEC would continue to apply a salary schedule under the authority of sec-

tion 161d. of the Atomic Energy Act which is equivalent to that provided by law for the competitive service. Within-grade increases would be earned at the same rates as in the competitive service. Future pay increases authorized under the Classification Act for Federal employees would apply to ERDA and NEC employees. With respect to wage board employees, their rates of pay would continue to be based on local prevailing rates as provided by the applicable local wage board pay schedule. Moreover, section 105(b) of H.R. 11510 specifically states that the "transfer of non-temporary personnel pursuant to this Act [from Interior, NSF, and EPA to ERDA] shall not cause any such employee to be separated or reduced in grade or compensation for one year after such transfer".

Employee Status.—The interchange agreement between the Civil Service Commission and the AEC would be applicable. Federal employees having "Career" appointments in the competitive service would receive "Regular (Excepted)" appointments based on their having three years of service for "career" tenure. Federal employees with "Career-Conditional" appointments (those with less than three years of service) would receive "Regular (Excepted) (Conditional)" appointments. In accordance with the interchange agreement, employees of ERDA and NEC would be eligible to transfer to any agencies in the competitive service without regard to the competitive examination procedures administered by the Civil Service Commission.

Retention/Reduction-in-Force Rights.—Employees transferred to ERDA and NEC would come under reduction-in-force procedures which differ from those of the competitive service only in that they do not provide for "retreat" rights, and do not include performance ratings in determining retention rights. In the "AEC" system, a reduction in force (RIF) is confined to a "competitive level", i.e., the grade level, occupation, and location in which a reduction is required. Within the competitive level, the employee with the lowest retention rights, i.e., least Federal service, status, and veteran-nonveteran status, is the employee who is reduced in force.

Since "retreat" rights (movement of an employee back through positions and grade levels previously held in lieu of separation) are not a part of the AEC system, there is relatively less job protection for certain employees who might be involved in a RIF. However, other employees, e.g., those in the same competitive area but at different grade levels (different competitive levels), could actually have better employment protection than would be available to them under the competitive civil service system. The AEC reduction-in-force procedures, which have been approved by the Civil Service Commission as meeting the requirements of the Veterans Preference Act, are designed to confine the program disruption and employee morale problems to the single "competitive level" in which a reduction is to take place. The AEC procedures avoid the problems of employees at higher grades "retreating" to lower grades with attendant lowered morale of those employees and those they displace who in turn "retreat" and displace others.

Employee "Fringe" Benefits.—There would be no significant changes in "fringe" benefits coverages available to Federal employees transferring to ERDA or NEC. The types of leave programs, life and health insurance programs, and retirement benefits would be the same

in ERDA and NEC as in the rest of the Federal service. Since ERDA would be covered by the retirement system administered by the Civil Service Commission, employees transferring to ERDA from other Federal agencies would be entitled to all the same civil service retirement benefits.

Summary.—A review of the rights, protections and benefits that would be available to employees of ERDA and NEC reveals that there would be no significant difference from the rights, protections and benefits available to all Federal employees. Except for the differences in the reduction-in-force procedures cited above, which involve advantages to employees as well as disadvantages, employees transferring from other Federal agencies to ERDA or NEC would be unable to discern any real changes in their rights, protections and benefits. However, the excepted personnel system provided by Section 161d. of the Atomic Energy Act would provide significant systems advantages which would benefit employees as well as benefit ERDA and NEC organizations.

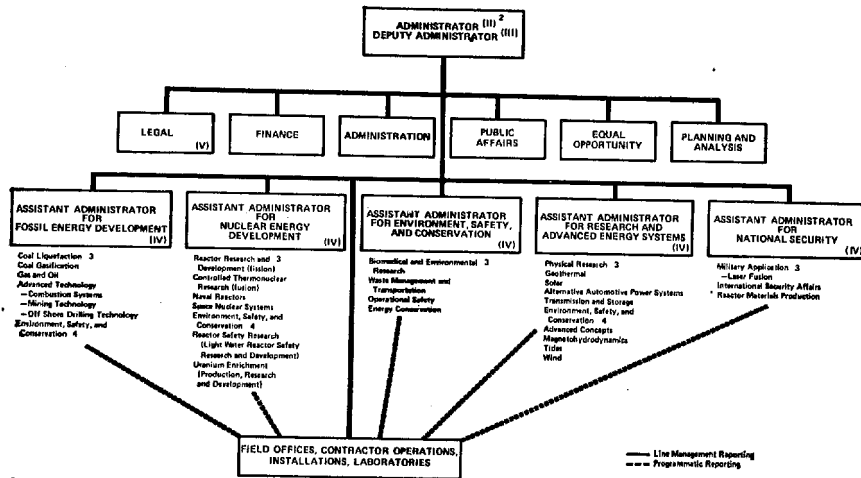
COMPARISON OF THE EXCEPTED PERSONNEL SYSTEM OF SECTION 161d.
OF THE ATOMIC ENERGY ACT WITH THE COMPETITIVE CIVIL SERVICE
SYSTEM

The basic difference between the excepted personnel system provided by Section 161d. of the Atomic Energy Act and the competitive civil service system is that the excepted system is designed to be uniquely responsive to the management needs of a highly technical research, development and regulatory program. The competitive civil service system is designed to implement the Civil Service Act of 1883 and related civil service laws, which require a broad merit employment program covering as much Government activity as possible and which emphasize fair and equitable treatment of all citizens applying for positions in, or employed by, the Government.

The excepted personnel system under section 161d. was developed because of a clear Congressional intent to have a personnel program that would be as effective as possible in supporting technical research, development and regulatory activities, and at the same time, assure fair and equitable treatment of all candidates and employees of the organization. This Congressional intent has been successfully carried out. Significant improvements in recruitment methods, selection procedures, job evaluation and pay methods, and executive manpower management techniques, as well as positive modifications in other functional areas, can be demonstrated and confirmed in the excepted personnel program of Section 161d. of the Atomic Energy Act.

APPENDIX 3-A

ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION¹

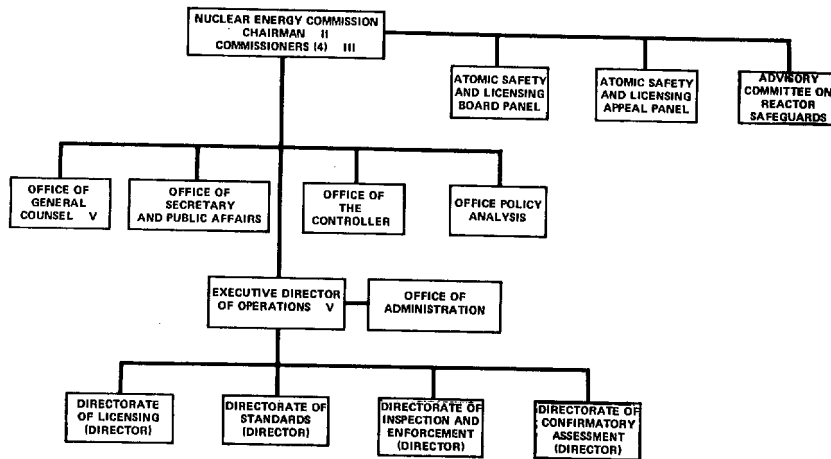


¹The General Advisory Committee, Military Liaison Committee and the Patent Compensation Board of the AEC are proposed for transfer to the ERDA.
²Roman numerals indicate Executive Level of position.
³Proposed areas of interest.
⁴Integral to development of energy technologies. Not duplicative of the Assistant Administrator for Environment, Safety and Conservation.

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APPENDIX 3-B

NUCLEAR ENERGY COMMISSION



NOVEMBER 1973

APPENDIX 4.—TEXT OF COMMITTEE BILL AS REPORTED

SHORT TITLE

SECTION 1. This Act may be cited as the "Energy Reorganization Act of 1973".

DECLARATION OF PURPOSE

SEC. 2. (a) The Congress hereby declares that the general welfare and the common defense and security require effective action to develop, and increase the efficiency and reliability of use of, all energy sources to meet the needs of present and future generations, to increase the productivity of the national economy and strengthen its position in regard to international trade, to make the Nation self-sufficient in energy, to advance the goals of restoring, protecting, and enhancing environmental quality, and to assure public health and safety.

(b) The Congress finds that, to best achieve these objectives, improve Government operations, and assure the coordinated and effective development of all energy sources, it is necessary to establish an Energy Research and Development Administration to bring together and direct Federal activities relating to research and development on the various sources of energy, to increase the efficiency and reliability in the use of energy, and to carry out the performance of other functions, including the Atomic Energy Commission's military and production activities.

(c) The Congress further declares and finds that it is in the public interest that the licensing and related regulatory functions of the Atomic Energy Commission be separated from the performance of the other functions of the Commission transferred pursuant to this Act, and that this separation be effected in an orderly manner assuring adequacy of technical and other resources necessary for the performance of each.

TITLE I--ENERGY RESEARCH AND DEVELOPMENT
ADMINISTRATION

ESTABLISHMENT

SEC. 101. There is hereby established an independent executive agency to be known as the Energy Research and Development Administration (hereinafter in this Act referred to as the "Administration").

OFFICERS

SEC. 102. (a) There shall be at the head of the Administration an Administrator of Energy Research and Development (hereinafter in this Act referred to as the "Administrator"), who shall be appointed by the President, by and with the advice and consent of the Senate. The

Administrator shall receive compensation at the rate now or hereafter prescribed for offices and positions at level II of the Executive Schedule (5 U.S.C. 5313). The Administration shall be administered under the supervision and direction of the Administrator, who shall be responsible for the efficient and coordinated management of the Administration.

(b) There shall be in the Administration a Deputy Administrator, who shall be appointed by the President, by and with the advice and consent of the Senate, and who shall receive compensation at the rate now or hereafter prescribed for officers and positions at level III of the Executive Schedule (5 U.S.C. 5314).

(c) There shall be in the Administration five Assistant Administrators, one of whom shall be responsible for fossil energy, another for nuclear energy, another for environment, safety, and conservation, another for research and advanced energy systems, and another for national security. The Assistant Administrators shall be appointed by the President, by and with the advice and consent of the Senate, and shall receive compensation at the rate now or hereafter prescribed for offices and positions at level IV of the Executive Schedule (5 U.S.C. 5315).

(d) There shall be in the Administration a General Counsel who shall be appointed by the Administrator and who shall serve at the pleasure of and be removable by the Administrator. The General Counsel shall receive compensation at the rate now or hereafter prescribed for offices and positions at level V of the Executive Schedule (5 U.S.C. 5316).

(e) There shall be in the Administration not more than seven additional officers appointed by the Administrator, who shall receive compensation at the rate now or hereafter prescribed for offices and positions at level V of the Executive Schedule (5 U.S.C. 5316). The positions of such officers shall be considered career positions and be subject to subsection 161d. of the Atomic Energy Act.

(f) The Division of Military Application transferred to and established in the Administration by section 104(a) of this Act shall be under the direction of a Director of Military Application, who shall be appointed by the Administrator and who shall serve at the pleasure of and be removable by the Administrator and shall be an active commissioned officer of the Armed Forces serving in general or flag officer rank or grade. The functions, qualifications, and compensation of the Director of Military Application shall be the same as those provided under the Atomic Energy Act of 1954, as amended, for the Assistant General Manager for Military Application.

(g) Officers appointed pursuant to this section shall perform such functions as the Administrator shall specify from time to time.

(h) The Deputy Administrator (or in the absence or disability of the Deputy Administrator, or in the event of a vacancy in the office of the Deputy Administrator, an Assistant Administrator, the General Counsel or such other official, determined according to such order as the Administrator shall prescribe) shall act for and perform the functions of the Administrator during any absence or disability of the Administrator or in the event of a vacancy in the office of the Administrator.

RESPONSIBILITIES OF THE ADMINISTRATOR

SEC. 103. The responsibilities of the Administrator shall include, but not be limited to—

(1) exercising central responsibility for policy planning, coordination, support, and management of research and development programs respecting all energy sources, including assessing the requirements for research and development in regard to various energy sources in relation to near-term and long-range needs, policy planning in regard to meeting those requirements, undertaking programs for the optimal development of the various forms of energy sources, managing such programs, and disseminating information resulting therefrom;

(2) encouraging and conducting research and development to demonstrate the commercial feasibility and practical applications of energy sources and utilization technologies;

(3) undertaking research and development in the extraction, conversion, storage, transmission, and utilization phases related to the development and use of energy from fossil, nuclear, solar, geothermal, and other energy sources;

(4) engaging in and supporting environmental, biomedical, physical, and safety research related to the development of energy sources and utilization technologies;

(5) taking into account the existence, progress, and results of other public and private research and development activities relevant to the Administration's mission in formulating its own research and development programs;

(6) participating in and supporting cooperative research and development projects which may involve contributions by public or private persons or agencies, of financial or other resources to the performance of the work;

(7) developing, collecting, distributing, and making available for distribution, scientific and technical information concerning the manufacture or development of energy and its efficient extraction, conversion, transmission, and utilization; and

(8) encouraging and conducting research and development for the conservation of energy.

TRANSFER OF FUNCTIONS

SEC. 104. (a) There are hereby transferred to and vested in the Administrator all functions of the Atomic Energy Commission, the Chairman and members of the Commission, and the officers and components of the Commission, except as otherwise provided in this Act.

(b) The General Advisory Committee established pursuant to section 26 of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2036), the Patent Compensation Board established pursuant to section 157 of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2187), and the Divisions of Military Application and Naval Reactors established pursuant to section 25 of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2035), are transferred to the Energy Research and Development Administration and the functions of the Commission with respect thereto, and with respect to relations with

the Military Liaison Committee established by section 27 of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2037), are transferred to the Administrator.

(c) There are hereby transferred to and vested in the Administrator such functions of the Secretary of the Interior, the Department of the Interior, and officers and components of such department—

(1) as relate to or are utilized by the Office of Coal Research established pursuant to the Act of July 1, 1960 (74 Stat. 336; 30 U.S.C. 661-668);

(2) as relate to or are utilized in connection with fossil fuel energy research and development programs and related activities conducted by the Bureau of Mines "energy centers" and synthane plant to provide greater efficiency in the extraction, processing, and utilization of energy resources for the purpose of conserving those resources, developing alternative energy resources such as oil and gas secondary and tertiary recovery, oil shale and synthetic fuels, improving methods of managing energy-related wastes and pollutants, and providing technical guidance needed to establish and administer national energy policies; and

(3) as relate to or are utilized for underground electric power transmission research.

(d) There are hereby transferred to and vested in the Administrator such functions of the National Science Foundation as relate to or are utilized in connection with—

(1) solar heating and cooling development; and

(2) geothermal power development.

(e) There are hereby transferred to and vested in the Administrator such functions of the Environmental Protection Agency and the officers and components thereof as relate to or are utilized in connection with—

(1) the development and demonstration of alternative automotive power systems; and

(2) the development and demonstration of precombustion, combustion, and postcombustion technologies to control emissions of pollutants from stationary sources using fossil fuels.

(f) To the extent necessary or appropriate to perform functions and carry out programs transferred by this Act, the Administrator may exercise, in relation to the functions so transferred, any authority or part thereof available by law, including appropriation Acts, to the official or agency from which such functions were transferred.

TRANSFER OF PERSONNEL AND OTHER MATTERS

SEC. 105. (a) Except as provided in the next sentence, the personnel employed in connection with, and the personnel positions, assets, liabilities, contracts, property, records, and unexpended balances of appropriations, authorizations, allocations, and other funds employed, held, used, arising from, available to or to be made available in connection with the functions and programs transferred by this Act, are, subject to section 202 of the Budget and Accounting Procedures Act of 1950 (31 U.S.C. 581c), correspondingly transferred for appropriate allocation. Personnel positions expressly created by law, personnel occupying those positions on the effective date of this Act, and per-

sonnel authorized to receive compensation at the rate prescribed for offices and positions at levels II, III, IV, or V of the Executive Schedule (5 U.S.C. 5313-5316) on the effective date of this Act shall be subject to the provisions of subsection (c) of this section and section 301 of this Act.

(b) Except as provided in subsection (c), transfer of nontemporary personnel pursuant to this Act shall not cause any such employee to be separated or reduced in grade or compensation for one year after such transfer.

(c) Any person who, on the effective date of this Act, held a position compensated in accordance with the Executive Schedule prescribed in chapter 53 of title 5 of the United States Code, and who, without a break in service, is appointed in the Administration to a position having duties comparable to those performed immediately preceding his appointment shall continue to be compensated in his new position at not less than the rate provided for his previous position.

ADMINISTRATIVE PROVISIONS

SEC. 106. (a) The Administrator is authorized to prescribe such policies, standards, criteria, procedures, rules, and regulations as he may deem to be necessary or appropriate to perform functions now or hereafter vested in him.

(b) The Administrator shall engage in such policy planning, and perform such program evaluation analyses and other studies, as may be necessary to promote the efficient and coordinated administration of the Administration and properly assess progress toward the achievement of its missions.

(c) Except as otherwise expressly provided by law, the Administrator may delegate any of his functions to such officers and employees of the Administration as he may designate, and may authorize such successive redelegations of such functions as he may deem to be necessary or appropriate.

(d) Except as provided in section 102 and in section 104(b), the Administrator may organize the Administration as he may deem to be necessary or appropriate.

(e) The Administrator is authorized to establish, maintain, alter, or discontinue such State, regional, district, local, or other field offices as he may deem to be necessary or appropriate to perform functions now or hereafter vested in him.

(f) The Administrator shall cause a seal of office to be made for the Administration of such device as he shall approve, and judicial notice shall be taken of such seal.

(g) The Administrator is authorized to establish a working capital fund, to be available without fiscal year limitation, for expenses necessary for the maintenance and operation of such common administrative services as he shall find to be desirable in the interests of economy and efficiency. There shall be transferred to the fund the stocks of supplies, equipment, assets other than real property, liabilities, and unpaid obligations relating to the services which he determines will be performed through the fund. Appropriations to the fund, in such amounts as may be necessary to provide additional working capital, are authorized. The working capital fund shall recover, from the appropriations

and funds for which services are performed, either in advance or by way of reimbursement, amounts which will approximate the costs incurred, including the accrual of annual leave and the depreciation of equipment. The fund shall also be credited with receipts from the sale or exchange of its property, and receipts in payment for loss or damage to property owned by the fund.

(h) Each department, agency, and instrumentality of the executive branch of the Government is authorized to furnish to the Administrator, upon his request, any information or other data which the Administrator deems necessary to carry out his duties under this title.

PERSONNEL AND SERVICES

SEC. 107. (a) The Administrator is authorized to select, appoint, employ, and fix the compensation of such officers and employees, including attorneys, pursuant to section 161d. of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2201(d)) as are necessary to perform the functions now or hereafter vested in him and to prescribe their functions.

(b) The Administrator is authorized to obtain services as provided by section 3109 of title 5 of the United States Code.

(c) The Administrator is authorized to provide for participation of military personnel in the performance of his functions. Members of the Army, the Navy, the Air Force, or the Marine Corps may be detailed for service in the Administration by the appropriate military Secretary, pursuant to cooperative agreements with the Secretary, for service in the Administration in positions other than a position the occupant of which must be approved by and with the advice and consent of the Senate.

(d) Appointment, detail, or assignment to, acceptance of, and service in, any appointive or other position in the Administration under this section shall in no way affect the status, office, rank, or grade which such officers or enlisted men may occupy or hold, or any emolument, perquisite, right, privilege, or benefit incident to or arising out of any such status, office, rank, or grade. A member so appointed, detailed, or assigned shall not be subject to direction or control by his armed force, or any officer thereof, directly or indirectly, with respect to the responsibilities exercised in the position to which appointed, detailed, or assigned.

(e) The Administrator is authorized to pay transportation expenses, and per diem in lieu of subsistence expenses, in accordance with chapter 57 of title 5 of the United States Code for travel between places of recruitment and duty, and while at places of duty, of persons appointed for emergency, temporary, or seasonal services in the field service of the Administration.

(f) The Administrator is authorized to utilize, on a reimbursable basis, the services of any personnel made available by any department, agency, or instrumentality, including any independent agency, of the Government.

(g) The Administrator is authorized to establish advisory boards, in accordance with the provisions of the Federal Advisory Committee Act (Public Law 92-463), to advise with and make recommendations to the Administrator on legislation, policies, administration, research, and other matters.

(h) The Administrator is authorized to employ persons who are not citizens of the United States in expert, scientific, technical, or professional capacities whenever he deems it in the public interest.

POWERS

SEC. 108. (a) The Administrator is authorized to exercise his powers in such manner as to insure the continued conduct of research and development and related activities in areas or fields deemed by the Administrator to be pertinent to the acquisition of an expanded fund of scientific, technical, and practical knowledge in energy matters. To this end, the Administrator is authorized to make arrangements (including contracts, agreements, and loans) for the conduct of research and development activities with private or public institutions or persons, including participation in joint or cooperative projects of a research, developmental, or experimental nature; to make payments (in lump sum or installments, and in advance or by way of reimbursement, with necessary adjustments on account of overpayments or underpayments); and generally to take such steps as he may deem necessary or appropriate to perform functions now or hereafter vested in him. Such functions of the Administrator under this Act as are applicable to the nuclear activities transferred pursuant to this title shall be subject to the provisions of the Atomic Energy Act of 1954, as amended, and to other authority applicable to such nuclear activities. The nonnuclear responsibilities and functions of the Administrator referred to in sections 103 and 104 of this Act shall be carried out pursuant to the provisions of this Act, applicable authority existing immediately before the effective date of this Act, or in accordance with the provisions of chapter 4 of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2051-2053).

(b) Except for public buildings as defined in the Public Buildings Act of 1959, as amended, and with respect to leased space subject to the provisions of Reorganization Plan Numbered 18 of 1950, the Administrator is authorized to acquire (by purchase, lease, condemnation, or otherwise), construct, improve, repair, operate, and maintain facilities and real property as the Administrator deems to be necessary in and outside of the District of Columbia. Such authority shall apply only to facilities required for the maintenance and operation of laboratories, research and testing sites and facilities, quarters, and related accommodations for employees and dependents of employees of the Administration, and such other special-purpose real property as the Administrator deems to be necessary in and outside the District of Columbia. Title to any property or interest therein, real, personal, or mixed, acquired pursuant to this section, shall be in the United States.

(c)(1) The Administrator is authorized to provide, construct, or maintain, as necessary and when not otherwise available, the following for employees and their dependents stationed at remote locations:

- (A) emergency medical services and supplies;
- (B) food and other subsistence supplies;
- (C) messing facilities;
- (D) audiovisual equipment, accessories, and supplies for recreation and training;

(E) reimbursement of food, clothing, medicine, and other supplies furnished by such employees in emergencies for the temporary relief of distressed persons;

(F) living and working quarters and facilities; and

(G) transportation for school-age dependents of employees to the nearest appropriate educational facilities.

(2) The furnishing of medical treatment under subparagraph (A) of paragraph (1) and the furnishing of services and supplies under paragraphs (B) and (C) of paragraph (1) shall be at prices reflecting reasonable value as determined by the Administrator.

(3) Proceeds from reimbursements under this section shall be deposited in the Treasury and may be withdrawn by the Administrator to pay directly the cost of such work or services, to repay or make advances to appropriations or funds which do or will bear all or a part of such cost, or to refund excess sums when necessary; except that such payments may be credited to a service or working capital fund otherwise established by law, and used under the law governing such funds, if the fund is available for use by the Administrator for performing the work or services for which payment is received.

(d) The Administrator is authorized to acquire any of the following described rights if the property acquired thereby is for use in, or is useful to, the performance of functions vested in him:

(1) copyrights, patents, and applications for patents, designs, processes, specifications, and data;

(2) licenses under copyrights, patents, and applications for patents; and

(3) releases, before suit is brought, for past infringement of patents or copyrights.

(e) Subject to the provisions of chapter 12 of the Atomic Energy Act (42 U.S.C. 2161-2166), and other applicable law, the Administrator shall disseminate scientific, technical, and practical information acquired pursuant to this title through information programs and other appropriate means, and shall encourage the dissemination of scientific, technical, and practical information relating to energy so as to enlarge the fund of such information and to provide that free interchange of ideas and criticism which is essential to scientific and industrial progress and public understanding.

(f) The Administrator is authorized to accept, hold, administer, and utilize gifts, and bequests of property, both real and personal, for the purpose of aiding or facilitating the work of the Administration. Gifts and bequests of money and proceeds from sales of other property received as gifts or bequests shall be deposited in the Treasury and shall be disbursed upon the order of the Administrator. For the purposes of Federal income, estate, and gift taxes, property accepted under this section shall be considered as a gift or bequest to the United States.

TITLE II—NUCLEAR ENERGY COMMISSION

CHANGE IN NAME

SEC. 201. The Atomic Energy Commission is hereby renamed the Nuclear Energy Commission and shall continue to perform the licens-

ing and related regulatory functions of the Chairman and members of the Commission, the general counsel, and other officers and components of the Commission, which functions, officers, components, and personnel are excepted from the transfer to the Administrator by section 104(a) of this Act.

LICENSING AND RELATED REGULATORY FUNCTIONS RESPECTING SELECTED
ADMINISTRATION FACILITIES

SEC. 202. Notwithstanding the exclusions provided for in section 110a. or any other provisions of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2140(a)), the Nuclear Energy Commission shall, except as otherwise specifically provided by section 110b. of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2140(b)), or other law, have licensing and related regulatory authority pursuant to chapters 6, 7, 8, and 10 of the Atomic Energy Act of 1954, as amended, as to the following facilities of the Administration:

(1) demonstration liquid metal fast breeder reactors when operated as part of the power generation facilities of an electric utility system;

(2) other demonstration nuclear reactors when operated as part of the power generation facilities of an electric utility system, except those in existence, under construction or authorized or appropriated for by the Congress on the date this part becomes effective; or

(3) facilities used primarily for the receipt and storage of high-level radioactive wastes resulting from activities licensed under such Act, except those in existence, under construction, or authorized or appropriated for by the Congress, on the date this Act becomes effective.

RESEARCH

SEC. 203. (a) The Nuclear Energy Commission may engage in or contract for research which the Commission deems necessary for the discharge of its licensing and related regulatory functions.

(b) In order to achieve the objectives and carry out the purposes of subsection (a), the Energy Research and Development Administration and every other Federal agency shall—

(1) cooperate with respect to the establishment of priorities for the furnishing of such research services requested by the Nuclear Energy Commission as the Commission deems necessary for the conduct of its functions; and

(2) furnish to the Nuclear Energy Commission, when requested, on a reimbursable basis, through its own facilities or by contract or other arrangement, such research services as the Commission deems necessary for the conduct of its functions.

TITLE III—MISCELLANEOUS AND TRANSITIONAL
PROVISIONS

TRANSITIONAL PROVISIONS

SEC. 301. (a) Except as otherwise provided in this Act, whenever all of the functions or programs of an agency, or other body, or any

component thereof, affected by this Act, have been transferred from that agency, or other body, or any component thereof by title I of this Act, the agency, or other body, or component thereof shall lapse. If an agency, or other body, or any component thereof, lapses pursuant to the preceding sentence, each position and office therein which was expressly authorized by law, or the incumbent of which was authorized to receive compensation at the rate prescribed for an office or position at level II, III, IV, or V of the Executive Schedule (5 U.S.C. 5313-5316), shall lapse.

(b) All orders, determinations, rules, regulations, permits, contracts, certificates, licenses, and privileges—

(1) which have been issued, made, granted, or allowed to become effective by the President, any Federal department or agency or official thereof, or by a court of competent jurisdiction, in the performance of functions which are transferred under this Act, and

(2) which are in effect at the time this Act takes effect,

shall continue in effect according to their terms until modified, terminated, superseded, set aside, or revoked by the President, the Administrator, or other authorized officials, a court of competent jurisdiction, or by operation of law.

(c) The provisions of this Act shall not affect any proceeding pending, at the time this section takes effect, before any department or agency (or component thereof) functions of which are transferred by this Act; but such proceedings, to the extent that they relate to functions so transferred, shall be continued. Orders shall be issued in such proceedings, appeals shall be taken therefrom, and payments shall be made pursuant to such orders, as if this Act had not been enacted; and orders issued in any such proceedings shall continue in effect until modified, terminated, superseded, or revoked by a duly authorized official, by a court of competent jurisdiction, or by operation of law. Nothing in this subsection shall be deemed to prohibit the discontinuance or modification of any such proceeding under the same terms and conditions and to the same extent that such proceeding could have been discontinued if this Act had not been enacted.

(d) Except as provided in subsection (f)—

(1) the provisions of this Act shall not affect suits commenced prior to the date this Act takes effect, and

(2) in all such suits proceedings shall be had, appeals taken, and judgments rendered, in the same manner and effect as if this Act had not been enacted.

(e) No suit, action, or other proceeding commenced by or against any officer in his official capacity as an officer of any department or agency, functions of which are transferred by this Act, shall abate by reason of the enactment of this Act. No cause of action by or against any department or agency, functions of which are transferred by this Act, or by or against any officer thereof in his official capacity shall abate by reason of the enactment of this Act. Causes of actions, suits, actions, or other proceedings may be asserted by or against the United States or such official as may be appropriate and, in any litigation pending when this section takes effect, the court may at any time, on its own motion or that of any party, enter any order which will give effect to the provisions of this section.

(f) If, before the date on which this Act takes effect, any department or agency, or officer thereof in his official capacity, is a party to a suit, and under this Act any function of such department, agency, or officer is transferred to the Administrator, or any other official, then such suit shall be continued as if this Act had not been enacted, with the Administrator, or other official, as the case may be, substituted.

(g) Final orders and actions of any official or component in the performance of functions transferred by this Act shall be subject to judicial review to the same extent and in the same manner as if such orders or actions had been made or taken by the officer, department, agency, or instrumentality in the performance of such functions immediately preceding the effective date of this Act. Any statutory requirements relating to notices, hearings, action upon the record, or administrative review that apply to any function transferred by this Act shall apply to the performance of those functions by the Administrator, or any officer or component.

(h) With respect to any function transferred by this Act and performed after the effective date of this Act, reference in any other law to any department or agency, or any officer or office, the functions of which are so transferred, shall be deemed to refer to the Administration, the Administrator, or other office or official in which this Act vests such functions.

(i) Nothing contained in this Act shall be construed to limit, curtail, abolish, or terminate any function of the President which he had immediately before the effective date of this Act; or to limit, curtail, abolish, or terminate his authority to perform such function; or to limit, curtail, abolish, or terminate his authority to delegate, redelegate, or terminate any delegation of functions.

(j) Any reference in this Act to any provision of law shall be deemed to include, as appropriate, references thereto as now or hereafter amended or supplemented.

(k) Except as may be otherwise expressly provided in this Act, all functions expressly conferred by this Act shall be in addition to and not in substitution for functions existing immediately before the effective date of this Act and transferred by this Act.

INCIDENTAL DISPOSITIONS

SEC. 302. The Director of the Office of Management and Budget is authorized to make such additional incidental dispositions of personnel, personnel positions, assets, liabilities, contracts, property, records, and unexpended balances of appropriations, authorizations, allocations, and other funds held, used, arising from, available to or to be made available in connection with functions transferred by this Act, as he may deem necessary or appropriate to accomplish the intent and purpose of this Act.

DEFINITIONS

SEC. 303. As used in this Act—

(1) any reference to "function" or "functions" shall be deemed to include references to duty, obligation, power, authority, respon-

sibility, right, privilege, and activity, or the plural thereof, as the case may be; and

(2) any reference to "perform" or "performance", when used in relation to functions, shall be deemed to include the exercise of power, authority, rights, and privileges.

AUTHORIZATIONS FOR APPROPRIATIONS

SEC. 304. Except as otherwise provided by law, appropriations made under this Act shall be subject to annual authorization.

COMPTROLLER GENERAL AUDIT

SEC. 305. Section 166. "Comptroller General Audit" of the Atomic Energy Act of 1954, as amended, shall be deemed to be applicable respectively, to the nuclear and nonnuclear activities under title I and to the activities under title II.

REPORTS

SEC. 306. (a) The Administrator shall, as soon as practicable after the end of each fiscal year, make a report to the President for submission to the Congress on the activities of the Administration during the preceding fiscal year. Such report shall include a statement of the short-range and long-range goals, priorities, and plans of the Administration together with an assessment of the progress made toward the attainment of those objectives and toward the more effective and efficient management of the Administration and the coordination of its functions.

(b) During the first year of operation of the Administration, the Administrator, in collaboration with the Secretary of Defense, shall conduct a thorough review of the desirability and feasibility of transferring to the Department of Defense or other Federal agencies the functions of the Administrator respecting military application and restricted data, and within one year after the Administrator first takes office the Administrator shall make a report to the President, for submission to the Congress, setting forth his comprehensive analysis, the principal alternatives, and the specific recommendations of the Administrator and the Secretary of Defense.

INFORMATION TO COMMITTEES

SEC. 307. The Administrator shall keep the appropriate congressional committees fully and currently informed with respect to all of the Administration's activities.

TRANSFER OF FUNDS

SEC. 308. The Administrator, when authorized in an appropriation Act, may, in any fiscal year, transfer funds from one appropriation to another within the Administration: *Provided*, That no appropriation shall be either increased or decreased pursuant to this section by more than 5 per centum of the appropriation for such fiscal year.

CONFORMING AMENDMENTS TO CERTAIN OTHER LAWS

SEC. 309. Subchapter II (relating to Executive Schedule pay rates) of chapter 53 of title 5, United States Code, is amended as follows:

(1) Section 5313 is amended by striking out "(8) Chairman, Atomic Energy Commission." and inserting in lieu thereof "(8) Chairman, Nuclear Energy Commission.", and by adding at the end thereof the following:

"(22) Administrator of Energy Research and Development."

(2) Section 5314 is amended by striking out "(42) Members, Atomic Energy Commission." and inserting in lieu thereof "(42) Members, Nuclear Energy Commission.", and by adding at the end thereof the following:

"(60) Deputy Administrator, Energy Research and Development Administration."

(3) Section 5315 is amended by striking out paragraph (50), and by adding at the end thereof the following:

"(99) Assistant Administrators, Energy Research and Development Administration (5)."

(4) Section 5316 is amended by striking out paragraphs (29), (69), and (102), by striking out "(62) Director of Regulation, Atomic Energy Commission." and inserting in lieu thereof "(62) Executive Director of Operations, Nuclear Energy Commission.", by striking out "(81) General Counsel of the Atomic Energy Commission." and inserting in lieu thereof "(81) General Counsel of the Nuclear Energy Commission.", and by adding at the end thereof the following:

"(133) General Counsel, Energy Research and Development Administration.

"(134) Additional officers, Energy Research and Development Administration (7)."

SEPARABILITY

SEC. 310. If any provision of this Act, or the application thereof to any person or circumstance, is held invalid, the remainder of this Act, and the application of such provision to other persons or circumstances, shall not be affected thereby.

EFFECTIVE DATE AND INTERIM APPOINTMENT

SEC. 311. (a) The provisions of this Act shall take effect one hundred and twenty days after the Administrator first takes office, or on such earlier date as the President may prescribe and publish in the Federal Register; except that any of the officers provided for in title II of this Act may be nominated and appointed, as provided in that title, at any time after the date of enactment of this Act. Funds available to any department or agency (or any official or component thereof), any functions of which are transferred to the Administrator by this Act, may, with the approval of the President, be used to pay the compensation and expenses of any officer appointed pursuant to this subsection until such time as funds for that purpose are otherwise available.

(b) In the event that any officer required by this Act to be appointed by and with the advice and consent of the Senate shall not have entered upon office on the effective date of this Act, the President may designate any officer, whose appointment was required to be made by and with the advice and consent of the Senate and who was such an officer immediately prior to the effective date of this Act, to act in such office until the office is filled as provided in this Act. While so acting, such persons shall receive compensation at the rates provided by this Act for the respective offices in which they act.

TITLE IV—SEX DISCRIMINATION

SEC. 401. No person shall on the ground of sex be excluded from participation in, be denied a license under, be denied the benefits of, or be subjected to discrimination under, any program or activity carried on or receiving Federal assistance under any title of this Act. This provision will be enforced through agency provisions and rules similar to those already established, with respect to racial and other discrimination, under title VI or the Civil Rights Act of 1964. However, this remedy is not exclusive and will not prejudice or cut off any other legal remedies available to a discriminatee.

ADDITIONAL VIEWS OF HON. BENJAMIN S. ROSENTHAL

I strongly support the concept of centralizing the Federal Government's energy research effort and of separating the AEC's regulation and promotional activities. H.R. 11510, as amended, appears to be a constructive step forward in our Nation's attempt to maximize its existing and potential energy resources.

Because the Energy Research and Development Administration (ERDA) will be the prime governmental focus of our energy research effort and because it will be directing the expenditure of many billions of public tax dollars over the next decade, it is imperative that the agency's operations and activities benefit the broad public interest.

Based on my understanding of the language of the bill and the intentions of the members of the committee voting for it, ERDA has been designed to fulfill that broad public purpose. Its policies and programs are to be guided by the following principles:

ERDA's research and development efforts will be substantially balanced between nuclear and fossil energy research, on the one hand, and advanced energy systems (i.e., solar, geothermal, etc.), on the other. No single energy technology will dominate ERDA's mission;

With respect to the disposition of the fruits of the Government's energy research and development effort, all nuclear and non-nuclear R. & D. transferred to the Administration shall be governed by property and information rights as provided for in existing law;

The Nuclear Energy Commission, which will continue to have full licensing and regulatory authority over nuclear power systems, has authority to engage in or contract for nuclear safety research or other research which it deems necessary for the disposition of its licensing and related regulatory functions. ERDA shall also furnish to the NEC, when requested, such research services as the Commission deems necessary for the conduct of its functions; and,

Environmental, consumer and related factors will play a major role in ERDA's policies and programs.

The Energy Research and Development Administration will not be able to achieve its intended purpose unless it avoids, absent substantial scientific evidence to the contrary, any biases which favor one energy technology over another; and only if all its operations and activities foster the highest degree of free and open competition in all segments of the energy industry.

BENJAMIN S. ROSENTHAL.

ADDITIONAL VIEWS OF HON. JIM WRIGHT

NEEDED: A NATIONAL ENERGY PLAN OF ACTION

This bill is useful in that it will equip the Executive branch of government with the operational framework through which to administer a cohesive, unified national energy plan. But Congress still needs to formulate and adopt such a plan.

The nation looks to Congress for leadership in the energy crisis. Leadership involves facing the whole unpleasant truth and coming forward with a definite, consistent and coordinated plan of action not merely to cope with present difficulties but to anticipate and head off the far more serious crisis which inevitably will confront the nation if our vision is too short and our response too timid.

The public will not be well served if the primary Congressional "initiative" consists merely of turning over yet another wide range of discretionary policy making powers to the Executive branch of government. Not only is such a posture ludicrously at odds with our protestations against Presidential usurpation of of legislative prerogatives. It also would represent a "cop out" by the people's elected representatives on the hard decisions that shape the future in this singly most significant domestic problem of our time.

The plan presented in this paper is based upon the following premises, which I believe to be valid:

1. The energy shortage is quite real and truly serious. It has been coming upon us for a long time. The Arab oil blockade has merely hastened our inevitable day of reckoning.

2. It is not and should not be regarded as a temporary problem. It will grow inexorably more binding and more inhibiting upon our way of life until we find alternate basic sources of energy to replace our present profound reliance upon petroleum.

3. While there are things that we can and must do to "share the shortage" and alleviate immediate hardships, the energy shortage will not be solved by short-range palliatives taken during the coming winter. It is a problem of the coming decade, and we'd better deal with it as such. Trying to temporize or to muddle through from crisis to crisis will only postpone a real beginning upon the necessary long-range solutions.

4. There is no painless solution, and any effective actions will involve certain costs and sacrifices upon the part of the American public. The citizens of this country, however, would rather be told the truth than to be lulled and pampered into a false sense of complacency. They will sacrifice if they see that all are sacrificing evenly and that the common sacrifice is attaining the promised results. They will willingly pay the necessary price in taxes so long as those taxes are reasonable and the public understands exactly what they are going for.

ENERGY TRUST FUND

With the foregoing thoughts in mind, I propose the creation of an *Energy Conservation and Development Trust Fund* made up of user taxes with the proceeds dedicated to short-, medium-, and long-term programs designed both to reduce wasteful consumption and to develop new and additional sources sufficient to meet national needs and to attain the ultimate goal of domestic self-sufficiency.

The Trust Fund concept is not new. In the Social Security program and the Federal Aid Highway program it has been a demonstrably effective device for producing a long-range commitment to long-range goals with the assured and consistent funding necessary to meet those goals. Freed from the vagaries and uncertainties of the annual budget submission and appropriations process and the sometimes unpredictable peaks and valleys which can occur in that process, the Trust Fund permits the development of intelligent and dependable long term planning by both government and industry.

Revenues for the *Energy Conservation and Development Trust Fund* would come from those firms and individuals engaged in activities which cause the greatest drain on energy supplies. And, as with the Highway Trust Fund and the Social Security Trust Fund, those paying the taxes would be the ultimate beneficiaries of the programs funded, in that those programs would be calculated to assure to them, as to the nation at large, a continuing supply of energy.

PROGRAMS FUNDED

I propose a *\$6 billion assured annual commitment* to various national programs realistically designed to conserve and develop energy. Considering the monumental magnitude of the problem and the lengthening shadow it casts upon the future of our entire economy, such a commitment is not unreasonable. Compared with the \$6 billion annual Highway Program and the Apollo Moon Landing Program funded over the past 12 years at an average annual outlay of about \$2 billion, a commitment of \$6 billion a year to achieve national self-sufficiency in energy seems fully appropriate.

Following is a list of those programs, together with a suggested level of assured funding, which in my judgment could be expected to yield maximum results:

1. *Two billion* dollars annually for *Urban Mass Transit* programs. This sum would be in addition to, not in lieu of amounts already approved for funding out of General Revenues in the 1973 Highway bill. It could be divided appropriately between matching funds for capital investment in rail and bus systems and operating subsidies to make local public transportation service a more attractive alternative to the private automobile.

Two billion dollars a year for the entire nation should not be considered excessive when one contemplates that completion of the Washington subway system alone will probably come to some \$3 billion.

Let us face the fact that improved service in such systems cannot be economically sustained simply out of the fare box. City dwellers will voluntarily opt for public transportation only when service is good and fares are reasonable. With the possible exception of Montreal, there probably is no public transportation system in any large North

American city that is today paying its way from fares, and few if any in Europe. To increase fares would be counterproductive.

Public transportation *can* be self-sustaining, but only with greatly expanded ridership. In 1945, when there were 18.9 billion individual passenger fares paid, the nation's bus, trolley and subway systems returned a profit of 11c for every dollar in operating revenue. By 1971, with only 5.5 billion passenger fares, they were suffering an aggregate operating loss of 23c for each dollar taken in.

It may be recalled that earlier this year I opposed any large-scale raid on the Highway Trust Fund for the purpose of public transportation, while supporting funding out of General Revenues. My reasons was that there simply is not enough money in the Highway Trust Fund to serve both purposes adequately. Highways, too, are necessary in our efforts to conserve fuel and abate air pollution. Both fuel consumption and the emission of carbons are appreciably increased by the crowding of too many cars on outmoded and overly congested road surfaces, with frequent starts and stops and the idling of engines. Just as it is impossible to get two quarts of milk out of a one-quart bottle, to pretend to serve both purposes from the finite resources available to the one existing Trust Fund would be to shortchange both needs.

It is incontestably true, however, that maximum and efficient utilization of public transportation will conserve significant amounts of fuel. To this end, by helping to assure a continuing supply, public transportation can perform a service to motorists everywhere who *must* use private vehicles in the conduct of their daily activities.

To comprehend the potential savings, one needs only to recognize that transportation consumes 25 percent of the total energy used in this country, and petroleum accounts for 96 percent of that. One gallon of fuel in a double decker suburban train can produce 200 passenger miles of travel. In an automobile carrying only one person it will produce 20 passenger miles or less, depending upon the size and efficiency of the automobile. Based upon its predicted ridership, the Bay Area Rapid Transit System of Northern California—even when considering all energy requirements such as station lighting, control and traction systems—will be four times as energy efficient as the automobile it displaces.

2. \$200 million in annual matching grants to assist in the development of better and more efficient *inter-city commuter rail and bus systems*. Such systems have long provided a useful service in places like New Jersey and the Connecticut suburbs of New York City. Dependable service could convert daily automobile commuters to their use in other metropolitan areas.

3. \$100 million in grants, or as a replacement for revenue loss from a system of tax incentives, to expand the nation's industrial capacity *to produce buses* for local public transportation systems. One present bottleneck to the expansion of public mass transit is the limited number of firms now engaged in the production of buses and the finite limits of their existing production capacity. There are only some 50,000 buses currently in use in local systems, and a reported production capacity of only about 5,000 a year—most of which are used as replacements for older vehicles. If we are markedly to enlarge the utilization of public transportation, we obviously must find some means rather quickly to enlarge the capacity to produce the necessary vehicles.

4. *One billion dollars* annually to finance a crash Research and Development program, including a number of large demonstration plants, *to convert coal as a usable, efficient and clean replacement* for gasoline, fuel oil and other petroleum products. The nation has been piddling along for several years on a variety of processes funded at a niggardly level, some of which have been started up only to be stopped at half-way point when the funds ran out or the whims of policy changed. Even so, they have produced some modest results.

Coal *can* be converted to such uses. Its sulphur content *can* be drastically reduced. To develop the most economical and efficient means of achieving these ends will cost a great deal of money. But the basic research exists and the time for puttering around, on a low-budget operation has passed. Coal conversion is no longer simply a desirable end; today it is both imperative and urgent.

At our *present* rate of consumption—a rate that has been taking quantum jumps upward every year—total known domestic oil reserves, including the Alaskan strike, are sufficient to last us for only some 15 or 16 years. But we have enough coal to last us several hundred years. As with the Pharaoh's dream of the seven fat calves and the seven lean, we'd be the most foolish of nations to wait until the oil runs out before providing a ready replacement. One billion dollars a year over the next five or six years could make the vital difference.

5. *One billion dollars* a year for solar, nuclear and thermal energy research. The application of the funds as between these three separate programs should be sufficiently flexible to permit the nation to take useful advantage of an unexpected scientific break-through in any of these areas. Funds for nuclear power development should be concentrated upon developing the means to maximize safety, and should include the application of fusion.

But in my opinion the lion's share should be expended upon *solar* research and development. For the long run, it holds out the greatest promise. It seems only plausible to believe that solar energy is the ultimate answer to our problems.

Solar energy is abundant, inexhaustible and non-polluting. In an average day, enough energy falls upon the U.S. in the form of sunlight to supply our power needs for an entire year. And every day we delay the real beginning of a fully funded, top priority effort at solar energy conversion will prolong and ultimately magnify the problems we face.

6. *\$200 million* for research to develop better *recovery methods for oil shale*, including ways to minimize damages to surface land and landscape.

7. *\$100 million* annually for a conservation program to *rehabilitate, restore and beautify lands* pocked and ravaged by strip coal mining and possible oil shale operations.

8. *\$500 million* a year to support and if necessary to subsidize a national program of *guaranteed long-term low-interest loans* to individual homeowners and operators of small business establishments to finance *improved insulation* so as to preserve heat and reduce fuel consumption. The aggregate results of such a nationwide effort could be significant in the conservation of heating fuels.

9. *\$100 million* a year in matching grants to states to assist in *patrolling and enforcing* whatever uniform speed limits may be im-

posed to combat the fuel shortage. Available evidence impellingly suggests that dramatic savings in petroleum—as well as truly enormous safety benefits—can be realized by reducing automotive highway speeds. While a high degree of voluntary compliance will be necessary to achieve this goal, it must not be left entirely to voluntarism. Any such hope would be doomed to failure, for several reasons.

Human nature being what it is, a motorist cruising along faithfully at 50 mph will be disillusioned and totally discouraged from compliance if other automobiles are consistently passing him at much higher speeds, with no apparent restraint or retribution. Moreover, it is simply much harder to maintain a speed of 50 in a stream of traffic which is flowing at a pace of even five or ten miles per hour faster.

When circumstances are so austere as to require the imposition of a national speed limit, it should be uniformly enforced. A \$100 million matching fund for enforcement, dispersed on a road mileage or population formula, would provide \$2 million a year in additional revenue for the average state. This could be extremely useful in supplying the additional patrol cars, helicopters, radar and other speed control devices necessary to assure uniform enforcement and to reassure the good citizen-driver that the results of his patriotic compliance are not being cavalierly undone by others.

10. *\$350 million* a year as a replacement for revenues lost through a system of incentives (tax credits or intangible drilling costs) as an encouragement to expanded domestic oil and gas exploration. Historically, most of the petroleum discoveries in this country have been the work of independent oil operators, most of them relatively small companies and many of them “wildcatters”—guys with a rig and a rabbit foot, a smattering of geology and a lot of guts. The major integrated oil companies often develop the finds, but the original discovery usually has been the work of the independents.

Exploration has become increasingly costly and uneconomical and this is one reason why majors have left the bulk of it to the independents. Eight out of every nine exploratory wells are dry holes, and the number of exploratory crews in operation in the U.S. today is only a very small fraction of the number operating 20 years ago. As I conceive it, any such tax incentive should be designed expressly to encourage a renewal of the type of speculative exploration without which new discovery has been handicapped.

As will be seen in the next section of this paper, dealing with taxes to support the Energy Conservation and Development Trust Fund, in order to avoid either the reality or the appearance of a “windfall” to the oil and gas industry, I shall propose a system of taxes through which those engaged in the most profitable end of the industry will replace the revenue loss through severance and gathering taxes. In effect, the industry will be paying for its own incentives.

11. *\$350 million* a year for a fund to provide extended and improved unemployment compensation for workers displaced from their jobs by reason of the shortages and economic cutbacks induced by the energy crunch, and wherever appropriate extensive programs of job retraining so as to provide marketable skills in new types of work.

Obviously, so pervasive and severe an impact as the national energy crisis will inevitably displace workers through changing patterns of

industrial priorities and employment opportunities. If we are serious about "sharing the shortage" and sacrificing evenly, then we should be ready with effective plans to see that relatively mild social curtailment and economic sacrifice for most of us does not result in total economic and social disaster for a few of us.

TAXES TO SUPPORT THE TRUST FUND

Any such large undertaking as this paper suggests must, of course, be paid for. Let us acknowledge in candor that almost any system of taxes we may devise, however artfully contrived, will inevitably find a great bulk of their burden being passed on in one way or another to the ultimate consumers of the products taxed. Frankly, I know of no effective way to avoid this. At least, we owe the public the honesty of not pretending that it isn't so. Let us merely try to distribute the burden fairly.

Many of us in the Congress have strongly opposed the idea of a punitive tax deliberately designed to control consumption of gasoline by artificially raising its price to one dollar a gallon or some such figure. Such an approach would be grossly unfair since it would place its heaviest and most onerous burden upon those Americans of low and moderate income who *must* rely upon private automotive travel to perform their daily work.

It is necessary to recognize, however, that our nation for a long time has been the beneficiary of an Energy Subsidy of quite considerable proportions. One gallon of gasoline in our society today produces the work equivalent of 25 man/days—in other words, the output in efficient labor of 25 men working all day or of one man working for 25 days. Shorn of taxes, that gallon of gasoline costs us just a little more than 25¢—a penny for the equivalent of one man's daily labor. Never in the bleakest meridians of slavery was work performed so cheaply.

Compared with what consumers elsewhere must pay—particularly when taking into account their relatively more meager incomes—Americans have indeed been getting a bargain at the gasoline pump. What costs us now about 40¢ a gallon with all taxes absorbed is retailing in Italy for \$1.30 a gallon, in Japan for \$1.60, in West Germany for \$1.15 and in the average world retail market for 96¢.

So, while utterly rejecting the idea of a punitive or prohibitive tax, we do find abundant reason in equity for additional taxes on petroleum and other energy-related products where the proceeds of those taxes are dedicated to conserving the finite supply and developing replacements.

I propose, therefore, that the following taxes—or some variation of them calculated to produce the necessary revenues—be levied and dedicated to the Energy Conservation and Development Trust Fund:

1. An additional tax of *4¢ per gallon on gasoline*. At our present national volume of sales, such a tax would produce approximately *\$4 billion a year* for energy conservation and development. To the same degree that our various efforts to curtail total gasoline consumption are effective, the proceeds of the tax would diminish.

A fall-off in revenues from this particular levy in future years would, therefore, be good news and proof that our other efforts were working. *If we should succeed in reducing total national consumption*

by 25 percent (an ambitious if not roseate assumption), a 4¢ per gallon tax still would yield \$3 billion annually for the Energy Trust Fund.

2. A manufacturer's excise tax on new automobiles, with the rate of taxation deliberately tilted to place its heaviest levies upon the largest, most luxurious vehicles which consume the greatest quantities of energy in their operation.

Small or energy-efficient cars of the medium range would be exempt. Perhaps an exemption should be written for any new automobile which clocks 20 miles per gallon or better over an extended run at 50 mph. A 5,000 pound automobile of the Cadillac or Lincoln class obviously would not qualify. Less energy-efficient cars could pay a tax proportioned to their fuel consumption.

A recent testing program by EPA, including 630 1973 vehicles, revealed for example that the heaviest car (5,500 lbs.) averaged 8.8 miles per gallon, while the smallest (2,000 lbs.) averaged 25.5 miles per gallon. These figures can be scaled downward by installation of such once-common devices as overdrive and substitution of standard for automatic transmissions. The smallest vehicles obviously are not suited for every American family or legitimate need, but it does make sense to require those whose cars gulp the greatest quantities of the irreplaceable national resource to pay something for that privilege into the fund for energy conservation and development.

It has been estimated that a manufacturer's excise tax, scaled from \$300 per car on the largest and least energy-efficient to perhaps \$50 per car on those that barely exceed the 20 mph. standard, would yield—based upon recent national patterns of production and sales—somewhere in the neighborhood of \$800 million annually for the Trust Fund. This amount, too, will gradually diminish as popular preferences develop for more energy-efficient vehicles. If so, so much the better.

3. A manufacturer's excise tax on pleasure boats. Enjoyable as a hobby and source of outdoor recreation, pleasure boating surely could not be called an essential undertaking. It seems only fair, therefore, that those who wish to consume vital sources of energy in its pursuit should be willing to pay something into the Energy Conservation and Development Fund for the privilege. As with the tax on new automobiles, I would suggest heavy taxes on boats of the yacht class, and a downward sliding scale on other large boats.

A \$300 tax on boats of more than 100 horsepower and a \$100 tax of boats of between 50 and 100 horsepower—exempting those of less than 50 horsepower—would yield some \$48 million a year, based on projected sales for 1974.

4. A sales tax on all large commercial and industrial users of electricity. Utility rates typically favor the largest users who get the benefit of quite considerably lower unit rates than are paid by the residential consumer. It seems only fair, therefore, that those who consume the most of our electrical energy supplies and pay the least per kilowatt/hour should bear a share of the cost of conserving and developing supplies for the future.

Ways and Means Committee sources indicate that a tax of $\frac{1}{10}$ of a cent (one mill) per kilowatt—exempting users whose total individual consumption is less than 30,000 kilowatts (this I am told would exempt

all residential and small commercial users)—would yield some \$900 a year for the Trust Fund.

5. A tax on all *parking lots*, except for those with a capacity for fewer than 100 automobiles. The exception would exempt only the small parking lots operated as small businesses and those maintained by small enterprises for the benefit of their employees and customers. Chain commercial parking lots could not escape payment by dividing their operations into a number of small lots. All those under the same ownership would be counted for purposes of the tax as one enterprise.

The tax I contemplate would be *25¢ per stall per day*, certainly not a prohibitive figure. A commercial parking establishment with a capacity for 1,000 cars would pay \$250 a day. Assuming that this amount would be passed on, if we further assume only three cars accommodated daily for each space in the average downtown parking lot used by shoppers, it should add no more than 10¢ to the parking fee of the casual shopper. Perhaps 5¢ per hour.

For a person parking regularly at a given accommodation five days a week while he works nearby, it would predictably add \$1.25 to his weekly parking fee. I should think that in fairness the same ought to apply to large company parking lots used by employees and to public and Federal parking lots (yes, the Rayburn Building included) whose beneficiaries should be expected to pay just like everyone else.

Such a tax would yield an estimated \$490 million a year, based on preliminary estimates of the number of park-for-money spaces available in the United States, plus those parking spots made available by companies and governmental units for free use by employees. The computation does *not* include complimentary parking spaces provided by businesses as an accommodation to customers. These would not be taxed.

6. A *severance tax on oil* and a *gathering tax on natural gas* calculated to yield total revenues of \$350 million a year so as to compensate for the incentives extended to encourage exploration. Thus, as noted earlier, the industry would be paying for its own incentives. The exploiter would pay for the incentive extended to the explorer. In the long run, it would benefit him—even more directly than it benefits the entire nation—since it is the discovered supplies that he is selling, and since unless more domestic petroleum resources are discovered he may not have anything at all to sell within a few years.

The total estimated revenues from the taxes herein contemplated would appear to exceed—particularly in the early years—the earmarked annual expenditures from the Trust Fund. This is somewhat deliberate, as a hedge against possible miscalculations and the apparent likelihood of declining levels of revenue from certain of the sources, and to provide a margin for flexibility in altering the proposed taxation and expenditure schedules as further observation and new information may dictate.

The foregoing outline no doubt can be improved by refinements, moderations, enlargements and even substitutions. I make no claim, obviously, that it represents a final or infallible judgment as to each of its particulars. Some of my figures may be subject to successful challenge. They are merely the results of the best information available to me at the present time, and I believe them to be basically and in large part reliable.

My purpose in offering this initiative is not to say that it should necessarily be precisely this way in every detail, but rather to conceptualize what it is that I believe the Congress should and must be about doing in the very near future. I invite critical analysis and suggestions for improvement in the basic plan I've offered here.

Most of all, I invite my colleagues in the Congress to come to grips with these hard problems now, to face these hard decisions which in the interest of the national future should not be longer put off, and to synthesize among us a Congressional plan of action worthy of the world's greatest legislative body and of the nation it serves, worthy of those who sent us here—and of their children.

TO RECAPITULATE

An Energy Conservation and Development Trust Fund—

Dedicated to the following purposes :

Urban mass transit programs.....	\$2,000,000,000
Inter-city commuter systems.....	200,000,000
To expand bus production.....	100,000,000
R. & D. program for coal conversion.....	1,000,000,000
R. & D. program for solar, nuclear, thermal.....	1,000,000,000
Recovery methods for oil shale.....	200,000,000
Rehabilitation of stripped lands.....	100,000,000
Loans for insulation improvements.....	500,000,000
To States, speed enforcement program.....	100,000,000
Incentives for oil and gas exploration.....	350,000,000
Unemployment compensation, training—Displaced workers.....	350,000,000

Total 5,900,000,000

With taxes from following sources :

4 cents per gallon on gasoline.....	¹ 4,000,000,000
Excise on new large automobiles.....	¹ 800,000,000
Excise on large pleasure boats.....	48,000,000
Electricity, large commercial, and independent users.....	900,000,000
Parking lots.....	490,000,000
Severance and gathering taxes, oil and gas.....	350,000,000

Total ¹6,588,000,000

¹ Estimated first year's yield based on present level of sales. These figures may decline somewhat in response to energy shortage.

JIM WRIGHT.

ADDITIONAL VIEWS OF HON. JOHN C. CULVER

I am glad to support this bill as amended, but I think it important for the Committee to set definite policy goals and to monitor their achievement through stringent oversight of the Administrator's performance in the annual authorization hearings provided for by Section 304.

Among the goals that I consider important are those identified in the Additional Views submitted by Representative Rosenthal, and I join his expression of those views. There are three further points that I believe the Administrator of the new ERDA must bear in mind.

First, it should be clear to him as it is to me that the authorizations in Sections 103(6) and 108(a) to participate in cooperative projects includes the pooling of information and efforts with foreign and international agencies. The energy crisis affects Europe and Japan far more severely than it does us; we should seek to develop technologies that can be of common use and assistance; and we should strive to avoid duplication and overlap as well as gain the benefits of their efforts.

Second, it is certainly essential that new and adequate emphasis be placed on the development of clean, renewable energy sources such as coal gasification, solar and geothermal energy, and nuclear fusion. The annual ERDA report and authorization requests should break down and justify the relative funding emphasis placed on each of these technologies in comparison with others.

Finally, the annual report should include in its account of R & D progress the best available current estimate of the end commercial costs of producing useable energy products by means of any given technology under active consideration or promotion. Judgements among priorities will have to be made and revised as we proceed, and energy costs will have to be taken prominently into account. Among other things, and despite the President's call for self-sufficiency, we cannot hope to insulate our energy-dependent industries—steel, petrochemicals, and others—from competitive world energy costs. This means that we cannot afford an R & D program that winds up isolating these essential industries from world markets.

The Administrator will bear important and difficult responsibilities, and I believe he should be given as much policy guidance as possible by this authorizing Committee.

JOHN CULVER.

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