

## SUMMARY OF LEGISLATIVE HISTORY

During the late 1960s, growing national concern over diminishing conventional energy resources led to demands that new, cleaner sources, such as solar energy and geothermal energy, be developed. In response to this mandate, the 91st Congress enacted the Geothermal Steam Act of 1970.

The Geothermal Steam Act of 1970 (P.L. 91-581) stipulated that

. . . the Secretary of the Interior may issue for the development and utilization of geothermal steam and associated geothermal resources (1) in lands administered by him, including public, withdrawn, and acquired lands, (2) in any national forest or other lands administered by the Department of Agriculture through the Forest Service, including public, withdrawn, and acquired lands, and (3) in lands which have been conveyed by the United States subject to a reservation to the United States of the geothermal steam, and associated geothermal resources therein.

Looking forward to wiser use of national resources in the future, the Act also states,

If the production, use, or conversion of geothermal steam is susceptible of producing a valuable by-product . . . the Secretary shall require substantial beneficial production of use thereof . . . (except) in the interest of conservation of natural resources.

and

. . . the lessee will . . . use all reasonable precautions to prevent waste of geothermal steam and associated geothermal resources . . . .

The Geothermal Steam Act also provides broad authority for the Secretary to issue regulations governing geothermal operations on leased Federal lands, including conservation of resources, protection of the environment and protection of the public interest.

As the need for even more rapid development of geothermal energy technologies as well as resources became evident, the Congress enacted the Geothermal Energy Research, Development, and Demonstration Act of 1974

(P.L. 93-410), which affirmed the potential benefits to the Nation of geothermal energy development and defined the major components of a coordinated Federal program to realize these benefits, saying,

. . . geothermal resources . . . which have extremely large energy content . . . are known to exist; (but) . . . technologies are not presently available for the development of most of these geothermal resources, but technologies for the generation of electric energy from geothermal resources are potentially economical and environmentally desirable, and the development of geothermal resources offers possibilities of process energy and other nonelectric applications . . . .

The Act continues,

Federal financial assistance is necessary to encourage the extensive exploration, research, and development in geothermal resources which will bring these technologies to the point of commercial application . . .

concluding,

the Federal Government should encourage and assist private industry through Federal assistance for the development and demonstration of practicable means to produce useful energy from geothermal resources with environmentally acceptable processes.

To achieve this goal, the Congress established through the Act the Geothermal Energy Coordination and Management Project (now identified as the Interagency Geothermal Coordinating Council) and directed the Project to develop and report to the Congress a coordinated Federal program. The Program Definition Report (ERDA-86) was submitted and published in October 1977. The Program directed by Congress included demonstration plants, loan guaranties, and extensive lists of other necessary activities to be undertaken, including regional and national resource surveys, drilling research, information clearing-houses in the states, development and recommendation of policy, and environmental impact assessments. It also authorized the National Science Foundation to encourage international participation in educational programs to train the personnel necessary for these expanding activities.

The Act also provided that the Project have "exclusive authority" for the authorization of activities in pursuance of the goals of the Act. This precise authority has never been exercised, but ERDA and DOI have played a lead role in coordinating the total program. The Act also requires an annual report to Congress on progress towards its goals.

The wide range of the functions and activities named in P.L. 93-410 and other energy legislation and the importance of their success to the Nation led the Congress to promulgate the Energy Reorganization Act of 1974, which established the Energy Research and Development Administration (ERDA). The responsibilities of the new agency included

- exercising central responsibility for policy planning, coordination, support, and management of research and development programs respecting all energy sources . . . ;
- encouraging and conducting research and development, including demonstration of commercial feasibility . . . ;
- engaging in and supporting environmental, biomedical, physical and safety research related to the development of energy sources and utilization technologies;
- taking into account . . . other public and private research and development activities . . . ;
- participating in and supporting cooperative research and development projects . . . ;
- making available for distribution, scientific and technical information concerning the manufacture or development of energy . . . ;
- creating and encouraging the development of general information to the public on all energy conservation technologies and new energy sources . . . ;
- encouraging and conducting research and development in energy conservation . . . toward the goals of reducing total energy consumption . . . and toward maximum possible improvement in the efficiency of energy use . . . ;
- encouraging and participating in international cooperation in energy and related environmental research and development;
- helping to ensure an adequate supply of manpower for the accomplishment of [energy R&D programs] . . . ;
- encouraging and conducting research and development in clean and renewable energy sources.

Responding to the urgency of the Nation's energy challenge, the Congress further classified and enlarged the scope of ERDA's responsibilities in the Federal Nonnuclear Energy Research and Development Act of 1974 (P.L. 93-577), which emphasized that "proper priority" must be given "to developing new nonnuclear energy options to serve national needs, conserve vital resources, and protect the environment." Besides reiterating the

high priority to be given to energy conservation and the importance of taking the environmental and social consequences of proposed programs into account, the Act required that ERDA submit a comprehensive program plan each year to the Congress. It repeated the directive of P.L. 93-410 that commercial demonstrations of geothermal energy technologies and environmental control systems be accelerated; called for joint Federal/industry experiments, demonstration plants, and corporations, along with other forms of Federal assistance; and required the promulgation of "regulations establishing procedures for submission of proposals to (ERDA) for the purposes of this Act."

Seeing the rapid growth of energy programs in the past decade, Congress acted to consolidate the energy-related functions and responsibilities of several different agencies, primarily ERDA, FEA, and the FPC, under the aegis of the Department of Energy, creating a cabinet post for this important area of Government activity. The Act consolidates and updates earlier Acts, giving ongoing and new programs continued guidance and support.

Among the major aims of this latest Act are

- to achieve . . . effective management of energy functions . . . and to promote maximum possible energy conservation measures . . .
- to provide for a mechanism through which a coordinated national energy policy can be formulated and implemented . . .
- to place major emphasis on the development and commercial use of solar, geothermal, recycling and other technologies utilizing renewable energy resources.

The Act also emphasized the importance of coordinated efforts with the states, local entities, the public, private industry, and other nations, and it reiterated the Congress concern with protection of the environment.



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DOE-WAPA GEOTHERMAL ASSESSMENT DOCUMENT TRANSMITTAL - BLC-24-82

Dear Duncan:

We have just received a limited quantity of the geothermal assessment document that was prepared for DOE-WAPA. Ten copies are being sent to you under separate cover for your use.

You and Bob Blackett are to be highly commended for your participation that made this quality document so well fitted to the needs of DOE-WAPA. Thanks for all your help.

Very truly yours,

A handwritten signature in cursive script, appearing to read 'B. C. Lunis'.

B. C. Lunis  
Hydropower/Geothermal Branch

jd

cc: P. M. Wright, UURI/ESL  
R. Blackett, UURI/ESL