

GLD1234

TITLE X (S. 1308)

RECOMMENDED AMENDMENTS

Legislation

NOTES

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RJS-2

This is the reservoir confirmation portion of the Omnibus Bill. I think this is the draft approved by the Senate Energy Committee and sent to the floor.

LOANS FOR GEOTHERMAL RESERVOIR CONFIRMATION

SEC. 1018 (a) The Secretary is authorized to make a loan from funds available in the Geothermal Resources Development Fund established under Public Law 93-410 to any municipality, electric cooperative, industrial development agency, nonprofit organization, or person for the purpose of exploring for or confirming the economic viability of a geothermal energy reservoir.

(b) Any such loan shall be repayable out of revenue from production of the geothermal energy reservoir for whose confirmation the well is drilled, at a rate not to exceed 20 percent of the annual gross revenue from the reservoir, except that if any disposition of the geothermal rights to that reservoir is made by the borrower, the full amount of the loan balance outstanding or the full amount of compensation received, whichever is less, shall be paid immediately. If the reservoir is confirmed, the Secretary may impute a reason-

able revenue for purposes of determining repayment (a) if reasonable efforts are not made to put such reservoir in commercial operation, (b) if the borrower or other person utilizes the resources without a sale of energy, or (c) if a sale of energy resources is made for an unreasonably low price. No such imputation of revenue shall be made for a period of three years following reservoir confirmation. In the event of failure to begin production of revenue within five years of drilling, the Secretary may take action to recover the value of any assets of the project in question, including resource rights.

(c) The Secretary may cancel the unpaid balance and any accrued interest on any loan granted if he determines on the basis of evidence presented by the loan recipient that the geothermal energy reservoir, with regard to which the loan was made, contains insufficient heat energy or has other characteristics which, make that reservoir economically or technically unacceptable for commercial development.

LOAN SIZE LIMITATION

SEC. 1019 The amount of any loan shall not exceed 50 percent of the cost of a project consisting of surface exploration and drilling of one or more exploratory well, except that if the loan is to a person, municipality, nonprofit organization, corporation, or Indian tribe or band to make similar

RECOMMENDED AMENDMENTS

tion of the resource for space heating or cooling or process heat for one or more structures or facilities existing or under construction, the amount may be 90 percent of project costs. No loan shall be made in excess of \$3,000,000.

LOAN RATE AND REPAYMENT

SEC. 1020. (a) Each loan made pursuant to section 101 shall bear interest at the discount or interest rate used at the time the loan is made for water resources planning projects under section 80 of the Water Resources Development Act of 1974 (42 U.S.C. 1962-17(a)).

(b) Each loan shall be for a term which the Secretary deems appropriate, but no loan term shall exceed twenty years from the date production begins. If revenues are inadequate to fully repay the principal and accrued interest within twenty years after production begins, any remaining unpaid amounts shall be forgiven.

PROGRAM TERMINATION

SEC. 1021. No new loans shall be made under this authority after September 30, 1986. Amounts repaid prior to September 30, 1986 on loans made pursuant to section 101 shall be deposited into the Geothermal Resources Development Fund. Amounts repaid after that date and amounts remaining in the fund on or after that date and not required to secure outstanding obligations shall be deposited into the United States Treasury as miscellaneous receipts.

REGULATIONS

SEC. 1022 All regulations made with respect to this title shall be promulgated no later than one year after the date of enactment of this Act.

AUTHORIZATIONS

SEC. 1023. There are hereby authorized to be appropriated for each of the five fiscal years beginning with fiscal year 1981, not to exceed \$150,000,000 for loans to be made pursuant to section 101. Amounts appropriated shall be deposited in the Geothermal Resources Development Fund and shall remain available until expended.

RESERVOIR INSURANCE PROGRAM

SEC. 1024. (a) The Secretary of Energy is authorized and directed to establish and implement within six months of the enactment of this title a program, in cooperation with the insurance and reinsurance industry, to provide reservoir insurance to any qualified eligible applicant.

“(h) For the purposes of this section, the term—

“(1) ‘investment’ means the expenditure of, and any irrevocable legal obligation to expend, funds (together with the reasonable interest costs thereof) for the purchase or construction of machinery, equipment, and facilities manufactured, or for services contracted to be furnished, for the development and utilization of a geothermal resource in the United States to provide energy in the form of heat for direct use or for generation of electricity;

“(2) ‘geothermal resource’ means a resource in the United States including: (i) all products of geothermal processes embracing indigenous steam, hot water, and hot brines; (ii) steam and other gases, hot water and hot brines resulting from water, gas, or other fluids artificially introduced into geothermal formations; (iii) heat or other associated energy founding geothermal formations; and (iv) any byproducts derived from them, where ‘byproduct’ means any mineral or minerals (exclusive of oil, hydrocarbon gas and helium) which are found in solution or in association with other geothermal resources and which have a value of less than 75 per centum of the value of the geothermal

Reference the interpretation given in the DOI regulations

steam or are not, because of quantity, quality, or technical difficulties in extraction and production, of sufficient value to warrant extraction and production by themselves;

"(3) 'risk' means the hazard that a reservoir of geothermal resources will cease to provide sufficient quantities of geothermal resource at minimum conditions required to maintain an economically or technically viable operation for utilization of the geothermal resource;

"(4) 'reasonable premiums' means premium amounts determined by the Secretary to be reasonable in light of the amount of investment subject to the risk and premiums charged in similar or analogous situations by private insurers where private insurance is concerned and by insurers or guarantors, both public and private, where public insurance is concerned;

"(5) 'other insurance' means any combination of private or public insurance other than investment insurance provided by the Secretary under this section;

"(6) 'reservoir' means the physical subsurface geologic structure which forms the natural repository for the undisturbed geothermal resource;

"(7) 'person' means any public or private agency, institution, association, partnership, corporation, political subdivision, or other legal entity, where any such entity is a United States citizen, as determined by application of the test for United States citizenship contained in section 802 of title 46, United States Code.

"(c) Any person with a total direct investment of not less than \$1,000,000 in the development and use, not including exploration and testing, of a geothermal resource associated with a reservoir, and unable to obtain other insurance at reasonable premiums for the amount of his investment subject to risk, as determined by the Secretary under this section, shall be eligible for investment insurance.

"(d) Any eligible person seeking investment insurance under this section shall file an application with the Secretary setting forth: (i) the total amount of the contemplated investment in a geothermal resource and associated reservoir; (ii) the views of the applicant concerning the nature and extent of the risk, including a complete geologic, engineering, and

financial assessment based on site specific results of exploration and testing of the geothermal resource and the reservoir; (iii) the status of all required Federal, State, and local approvals, permits, and leases for the proposed development and utilization operations at the site; and (iv) the extent to which the applicant has been able to obtain other insurance against the risk; and such other information as the Secretary may require.

"(e) The Secretary, within ninety days of receipt of a satisfactory application, shall determine in writing and submit to the applicant: (i) the risk which may cause loss of investment for the applicant; (ii) the total investment subject to the risk; (iii) the amount of the other insurance which is available at reasonable premiums for the purpose of indemnifying the applicant against the risk; (iv) the amount of investment insurance available pursuant to this section, which shall be the difference between the total investment subject to risk and the total other insurance determined to be available at reasonable premiums, but not in excess of 90 per centum of, or \$50,000,000 of, whichever is the lesser, the loss of investment subject to risk; and (v) any reasonable terms and conditions necessary for the prudent administration of the program, including reasonable premiums for the insurance pursuant to this section.

Allow Secretary to deny the application if there is an unreasonable risk

"(f) The Secretary, within ninety days of the determinations under subsection (e), and upon agreement of the applicant to the determinations, shall issue a certificate of insurance, which shall not be transferrable without the express approval of the Secretary for good cause shown, with any specified terms and conditions and shall execute a contract with the applicant setting forth the terms and conditions of the investment insurance, and such other provisions as may be necessary to protect the interests of the United States, including ownership, use, and disposition of any currency, credits, assets, or investments on account of which payment under such insurance is to be made, and any right, title, claim, or course of action existing in relation thereof.

"(g) Any holder of a certificate of insurance pursuant to subsection (f) who claims a loss of value of his investment by reason of the risk shall receive compensation to the extent the Secretary determines that: (i) such holder is eligible to receive compensation pursuant to the certificate and the contract; (ii) the amount and loss incurred by the holder which is subject to insurance and for which the holder has not received and will not receive compensation from other insurance.

"(h) Any compensation received by the holder shall be withdrawn from the Geothermal Resources Development Fund. The full faith and credit of the United States is hereby

pledged to the payment of any compensation under this section.

"(i) A person shall not be denied insurance pursuant to this section, solely because such person is the recipient of any other Federal assistance under this Act, or any other Act.

"(j) There are hereby authorized to be appropriated to the Geothermal Resources Development Fund such sums as may be necessary for the specific purposes of this section.

"(k) The Secretary may also enter into agreements to reinsure any private insurer for any risk associated with insurance for development and utilization of a geothermal resource and associated reservoir, using the procedures of subsections (c) through (i), as he deems appropriate to provide an incentive for the participation of the private insurance industry in geothermal development. The Secretary also is authorized and directed to use any other available authority to obtain such greater participation of the private insurance industry. The Secretary shall submit a report to Congress within one year of the enactment of the Geothermal Research, Development, and Demonstration Amendments of 1979 on the need for any additional authorities to obtain such participation."

\$100 million for F
and shall be available
until expended.

FEASIBILITY STUDY LOAN PROGRAM

Sec. 1025. (a) The Secretary of Energy is authorized and directed to establish a program of assistance for the accelerated development of geothermal resources for non-electric applications by geothermal utility districts, geothermal industrial development districts and projects, and other persons.

(b) The Secretary is authorized to make a loan to any qualified applicant, pursuant to subsection (a), to defray the costs of up to 90 per centum for (i) studies to determine the feasibility of such geothermal development pursuant to subsection (a) and (ii) preparing any application for any necessary license or other Federal, State, and local approvals respecting such development. The Secretary may cancel the unpaid balance and any accrued interest on any loan granted pursuant to this subsection if he determines on the basis of the study, that such development is not technically or economically feasible.

"(c) The Secretary is authorized to make a loan to any qualified applicant, pursuant to subsection (a), to defray the costs of up to 75 per centum of the costs directly related to the construction of systems for nonelectric geothermal development pursuant to subsection (a), where the Secretary finds—

"(i) all necessary licenses and other required Federal, State, and local approvals for construction of systems have or will be issued,

"(ii) the project will have no significant adverse impact on the environment, and

"(iii) the applicant requires such assistance for the project.

"(d) Each loan made pursuant to this section shall bear interest at the discount or interest rate used at the time the loan is made for water resources planning projects under section 80 of the Water Resources Development Act of 1974 (42 U.S.C. 1962-17(a)). Each loan shall be for such term, as the Secretary deems appropriate, but not in excess of ten years for loans under subsection (b) and thirty years for loans under subsection (c).

"(c) Amounts repaid on loans made pursuant to this section shall be deposited in the Geothermal Resources Development Fund. Loans pursuant to this section shall be funded by the Geothermal Resources Development Fund. There are hereby authorized to be appropriated to the Geothermal Resources Development Fund, for the purposes of this section, \$50,000,000 in fiscal year 1980, which shall remain available until expended.

SEC. 1026. Title II of the Geothermal Research, Development, and Demonstration Act of 1974 is amended—

(a) by adding at the end of section 201(c) "except that any guarantee made for a loan to an electric, housing, or other cooperative, or to a municipality, as defined in section 3(7), part I, of the Federal Power Act, may apply to so much of the principal amount as does not exceed 90 percent of the aggregate costs of the project."

SEC. 1027. The Geothermal Energy Research, Development, and Demonstration Act of 1974 (30 U.S.C. 1101 et seq.) as amended further by Public Law 95-238, title V, is amended further as stated in the following sections of this title. For the purposes of this title, the term "the Act" shall be defined as the aforementioned Act.

SEC. 1028 Section 1143 of the Act is amended by striking "1974" and insert in lieu thereof "1979".

SEC. 1029. The Act is further amended by adding new section 1146, as follows:

"SEC. 1146. The Administrator of the Small Business Administration, the Administrator of the Rural Electric Administration, the Administrator of the Farmers Home Administration, and the Secretary of Housing and Urban Development may, with the express approval of the Secretary of Energy, utilize funds in the Geothermal Resources Development Fund established by section 1144 of this Act, and the procedures of subsection 1144(c), for the purpose of providing loan or loan guarantee assistance, consistent with the objectives of this Act, for geothermal energy development and directly related activity, by means of loan and loan guarantee programs otherwise authorized by law in such agencies and departments. Such assistance shall be in full conformance with any requirements or limitations in such laws authorizing such assistance. The total amount of all such assistance using the Geothermal Resources Development Fund shall not exceed \$50,000,000 of the total amount of funds available in the fund in any fiscal year."

SEC.1030 The Act is further amended by adding new section 1147, as follows:

"SEC. 1147. The Secretary shall ensure, to the maximum extent possible, that any action associated with a loan guarantee under this chapter, which is pursuant to section 102(c) of the National Environmental Policy Act, takes the maximum cognizance allowable under law of any other action associated with the project, which is the subject of the loan guaranty. No such action associated with the loan guaranty shall duplicate any such action associated with such project."

SEC.1031. (a) The Act is further amended by adding new section 1148, as follows:

"SEC. 1148. The Secretary of Energy within sixty days after enactment of the Geothermal Research, Development and Demonstration Amendments of 1979 shall establish and implement orderly and expeditious procedures for the processing of loan guarantee applications pursuant to subchapter II of this Act. The procedures shall require that all such applications shall be approved or disapproved within four months of the date of filing. Such procedures shall include, at a minimum, explicit direction on the handling of such applications, express deadlines for the solicitation and collection of

views of the consulted officials in the Department of Energy and in any other appropriate Department or agency (with identified officials responsible for meeting such deadlines), a Department of Energy coordinating authority to monitor the processing of such applications, predetermined procedures for expeditious handling on intradepartment and interagency disagreements and appeals to higher authorities, and similar administrative mechanisms. To the maximum extent practical, an applicant should be advised of all information required of the applicant for the entire process for every departmental element and agency's needs at the beginning of the process.

SEC. 1032. The Act is further amended by adding a new section 1128, as follows:

"SEC. 1128. (a) The Secretary of Energy shall initiate immediately a full and complete review of all relevant considerations associated with the significantly accelerated development of geopressured methane in the United States and on the Outer Continental Shelf, with ~~primary~~ emphasis on legal, institutional, and regulatory barriers to such development. The review also shall address the current status of technology development to support such accelerated development, and shall consider the earliest opportunities for demonstration efforts. The review shall be coordinated with the Interagency

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Geothermal Coordinating Committee pursuant to section 1121. The Secretary shall submit a report to the Congress, within six months of the enactment of the Geothermal Research, Development, and Demonstration Amendments of 1979, with appropriate recommendations for any administrative or legislative actions necessary to support such accelerated development of geopressured methane.

“(h) The Secretary of Energy and the Secretary of the Interior shall initiate immediately a full and complete review of all relevant considerations associated with the significantly accelerated development of the potential of hot dry rock systems in the United States, with primary emphasis on the status of technology development to support such accelerated development. The review also shall address the earliest opportunities for demonstration projects, specifically including such projects at facilities and installations of the Federal Government. The review additionally shall consider any legal, institutional, or regulatory barriers to such development. The review shall be coordinated with the Interagency Geothermal Coordinating Committee pursuant to section 1121. The Secretary shall submit a report to the Congress, within six months of the enactment of the Geothermal Research, Development, and Demonstration Amendments of 1979, with appropriated recommendations for any administrative or legislative action necessary to support such accel-

“(c) The Secretary of Energy, in coordination with the Interagency Geothermal Coordinating Committee pursuant to section 1121, and with the Administrator of the Environmental Protection Agency, shall immediately conduct a full and complete review of the need for environmental control technology, generic or specialized for a particular form of geothermal energy, to support, pursuant to all applicable Federal environmental laws, the significantly accelerated development of all forms of geothermal energy. The review shall also include the adequacy of the Department of Energy’s environmental control technology development program for geothermal energy. The Secretary shall submit a report on the review to the Congress, within six months of the enactment of the Geothermal Research, Development, and Demonstration Amendments of 1979, with appropriate recommendations for any administrative or legislative actions necessary to support such accelerated development of all forms of geothermal energy in the United States.”.

Sec. 1933. The Act is further amended by adding a new section 1129, as follows:

"SEC. 1129. The Secretary of Energy is authorized and directed to initiate a new program for utilization of geothermal energy in Federal buildings, Federal facilities, and Federal installations in the United States. The program shall, to the maximum extent feasible, be developed in full coordination with the existing programs for solar utilization and energy conservation in Federal buildings and installations. The Secretary is authorized to cost share with any other Federal agency or department the incremental increase in retrofit or new construction costs resulting from initial capitalization of any such geothermal system in a Federal building, facility, or installation, to the extent the Secretary deems appropriate to provide a further incentive for geothermal development in a given geographical area or on a nationwide basis. The Secretary also shall direct each power marketing administration in the Department of Energy to consider affirmatively the development and use of geothermal energy in its system. The option of use of geothermal energy shall be considered fully in any new Federal building, facility, or installation in ~~known~~ geothermal resource areas."

designated by
the Secretary
of Energy

A B I L L

To provide for the protection of thermal features and other resources of Yellowstone National Park, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Congress finds and declares that (1) Yellowstone National Park was established to preserve the wildlife and natural features therein, including geysers, hot springs, and other naturally occurring thermal features; (2) the thermal features within Yellowstone National Park must continue to function under natural conditions of temperature, pressure, and purity in order to preserve the scenic, fish and wildlife, and other values for which the park was established; (3) the thermal features within Yellowstone National Park occur by virtue of and are dependent upon subsurface sources of thermal waters, which sources may extend beyond the boundaries of the park; (4) the exploration for and development and production of thermal waters and geothermal energy from subsurface sources adjacent or related to the thermal features within Yellowstone National Park have the potential for altering the natural conditions of temperature, pressure, and purity which are necessary to continued preservation of the resources of the park in their natural state; and (5) such exploration,

development or production from such sources should not be undertaken unless such activity will result in no adverse effect on the thermal features and other resources of Yellowstone National Park. It is, accordingly, the purpose of this Act to provide continuing protection

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for the thermal features of Yellowstone National Park and the other park resources dependent thereon from adverse alteration as a result of exploration, development, or production of geothermal resources on lands adjacent or related to the park, regardless as to whether title to such lands is in the United States.

Sec. 2. The Congress hereby declares that, notwithstanding any other provision of law, all surface and subsurface waters in such quantity and quality as is necessary to sustain the natural features, including thermal features, and the fish, wildlife, and other resources of Yellowstone National Park are reserved to the United States and may not be disposed of except by or pursuant to further Act of Congress.

Sec. 3. Within the area described as all those lands, waters, and interests therein within a radius of forty miles from the southwest corner of the boundary of Yellowstone National Park and within such additional areas as may from time to time be identified by the Secretary of the Interior based on information available to him indicating that the application of this section to such additional areas is necessary to carry out the purpose of this Act, no person shall extract, explore for, develop, or produce thermal waters, steam, or geothermal energy unless such activity has been determined by the Secretary of the Interior to cause no immediate or long-term adverse effect on the resources of Yellowstone National Park. As used in this Act the term "person" includes a State and any political subdivision of a State.

A description of areas in addition to that described in this section to which this section applies shall be caused to be published by the Secretary of the Interior in the Federal Register.

Sec. 4. Any person who has suffered a loss by operation of this Act, or by orders or regulations issued pursuant thereto, may bring an action in a United States district court to recover just compensation, which shall be awarded if the court finds that such loss constitutes a taking of property compensable under the Constitution.

NATIONAL PARK SERVICE AREAS CONTAINING
KNOWN SURFACE GEOTHERMAL RESOURCES

Alaska

Bering Land Bridge National Monument
(hot springs, recent (\pm 1000 years) lava fields and maars (lakes
in exploded volcanoes)
Gates of the Arctic National Monument
(hot springs, heat emitting granitic intrusions)
Yukon-Charley National Monument
(hot springs)
Katmai National Monument
(active volcanoes, steam vents, hot springs)
Aniakchak National Monument
(hot springs, steam vents, intermittently active cinder cones
1931 last)
Wrangell-St. Elias National Monument
(hot springs, active volcano with steam vents)
Glacier Bay National Monument
(hot spring)
Denali National Monument
(hot springs)
Mount McKinley National Park
(gas emissions along Denali fault)
Lake Clark National Monument
(active volcanoes, steam vents)

Arkansas

Hot Springs National Park
(hot springs)

California

Lassen Volcanic National Park
(hot springs, active volcano (1916))
Sequoia National Park
(hot springs)

Hawaii

Haleakala National Park
(active volcanoes)
Hawaii Volcanoes National Park
(active volcanoes)

Nevada

Lake Mead National Recreation Area
(hot springs)

Texas

Big Bend National Park
(hot springs)

Washington

Mount Rainier National Park
(fumaroles, steam vents)
Olympic National Park
(hot springs)

Wyoming

Grand Teton National Park
(hot springs)
John D. Rockefeller, Jr., Memorial Parkway
(hot springs)
Yellowstone National Park
(geysers, hot springs, steam vents, mud pots)

Areas currently under consideration by Congress for protection:

Idaho

Bruneau River
(numerous hot springs)
-a legislative proposal is in Congress to designate the Bruneau
as a wild and scenic river..

New Mexico

Valles Caldera
(hot springs)
-a proposal has been forwarded to Congress for consideration of
the area as a national monument.

GEOTHERMAL OMNIBUS LEGISLATION

By

Randall L. Stephens

The Geothermal Energy Omnibus Legislation proposals that the Interagency Geothermal Coordinating Council was developing earlier this year have now been separated by the Congress into three separate bills (SLIDE 1). Not all the recommendations of the Council's Institutional Barrier Panel were approved by the Administration, but essentially all of them are included in the bills, with some major added measures as well.

The legislative process began with the introduction of two major bills, the Church and McClure bills and their counterparts in the House of Representatives, introduced by Congressmen Santini and Symms. These are shown on the first chart. A third set of initiatives was proposed by Senator Packwood and others, and these tax credits have been incorporated in the Windfall Profits Tax Bill, S. 3919.

These two omnibus bills have been separated into their nonleasing and leasing provisions, which are being dealt with separately, so we now have the tax credit proposals, the geothermal title of the synthetic fuels bill, with the nonleasing provisions, and a leasing bill.

The tax credits (SLIDE 2) have been approved by the Senate as part of the Windfall Profits Tax Bill and are in a Senate/House conference committee. There are no similar tax credits in the House bill, so the major question will be acceptance of these expanded credits by the House conferees. The bill increases the credits in the National Energy Act to 50 percent for residential applications and to 20 percent for business applications, extends the time period to 1989, and has some additional features shown on the chart.

Most of the nonleasing provisions of both the Church and McClure bills have been approved by the Senate as amendments to the Synfuels Bill, S. 932 (SLIDE 3). That bill also has a House counterpart without similar provisions and depends on a conference committee acceptance. It provides several major new programs, including a \$750 million forgivable loan program for geothermal reservoir confirmation drilling, a \$100 million reserve for reservoir insurance, and a \$50 million program of loans for nonelectric feasibility studies and construction. The major elements of that title are shown on this chart.

The leasing provisions will be dealt with in a separate bill (SLIDE 4). Both the House and Senate committee staffs are working to develop compromise positions between the Church and McClure bills, and some action is expected in the next month or two. The major thrust of the leasing portion of the Omnibus Bill is to streamline Federal leasing and permitting and to remove limitations and barriers to development on Federal lands.

I have prepared handouts of the draft legislation I have referred to along with the excerpts from the Joint Conference Report, which address the geothermal economic incentives contained in S. 932.

In conclusion, I would like to end on a note of optimism—we expect to see further action on all these bills soon, and the prospects are very good that all the legislation I have described will be enacted by early this year.

Pending Geothermal Energy Legislation

- **Geothermal Energy Omnibus Bills S. 1330/H.R. 4471, S. 1388/H.R. 5187**
- **Acreage Limit Increase H.R. 740**
- **Tax Credits H.R. 3919, Title II**
- **Omnibus Geothermal Energy Act, S. 932, Title VI**
- **Geothermal Steam Act Amendments, H.R. 6080**

Alternative Energy Tax Credits— HR 3919, Title II

- **Status**
 - Senate Finance Committee Approved October 18, 1979
 - Senate Approved December 17, 1979

- **Residential Credit**
 - Increased to 50%
 - Available to Builders
 - Heat Pumps Included (15% up to \$2000)
 - Extended to 1990
 - Wells Specifically Eligible

- **Business Credit**
 - Increased to 20%
 - Utilities Eligible
 - Extended to 1990
 - Refundable
 - Heat Pumps Eligible for 10% Credit

Synfuels Legislation (S. 932 Title VI)

Geothermal Provisions

- Reservoir Confirmation Loans (\$750 Million), 90% Nonelectric, 50% Electric
- Reservoir Insurance (\$100 Million)
- Direct Low-Interest Loans for Nonelectric Feasibility Studies, License Applications, and System Construction (\$50 Million)
- 90% Loan Guarantees for Municipals and Cooperatives
- Loan Guaranty Program Extended to 1989
- Use of GLGP by REA, HUD, SBA, FmHA Authorized (\$50 Million)
- Expedited Loan Guaranty Processing
- Federal Buildings Program
- Expedited Geopressured, Hot Dry Rock, and Environmental Control Technology Programs
- Public Utility Regulatory Exemption Expanded to 140 MWe
- Status
 - Senate Energy Committee Approved October 24, 1979
 - Passed Senate June 30, 1979

Amendments to Geothermal Steam Act

- **H.R. 740 – Passed House September 10, 1979, Increased Acreage Limit to 51,200**
- **H.R. 6080 – Reported Out by Interior Committee December 19, 1979**
- **H.R. 6080 Provisions**
 - **Narrow KGRA Criteria (Substantial Geological Indications of Electric Potential)**
 - **Increases Acreage Limit to 51,200 Acres**
 - **Processing Time Goals for Leases and Permits**
 - **Federal Use Authorized**
 - **Exempts Developed Acreage From Limits**
 - **Free Use for Noncommercial Nonelectric Applications**
 - **Relief From 10-Year Readjustment Authority**
 - **Grandfathering for Noncompetitive Lease Applications**
- **Additional Provisions Expected in Senate Bill**
 - **Conditioned Leasing**
 - **Diligence Requirements**

GEOHERMAL ENERGY OMNIBUS LEGISLATION UNDER CONSIDERATION IN CONGRESS

SECTIONS OF THE SENATE ENERGY COMMITTEE'S
REPORT ON S. 932 WHICH RELATE TO THE GEO-
THERMAL ENERGY ACT OF 1979 (TITLE VI).

January 1980

purchasers of residential buildings with an energy audit of the building they are purchasing. This provision prohibits a financial institution whose deposits are insured by an agency of the Federal Government from financing the purchase of a residential building unless an energy audit of the building is made available to the purchaser or the purchaser posts a \$50 bond that is refunded when he obtains an energy audit of the building that he is purchasing. This provision does not apply where a good faith, but unsuccessful, effort has been made to obtain an audit, where the Secretary of Energy has exempted that particular geographic region, or where there is no utility audit program serving that residential building. These requirements begin January 1, 1981, and remain in effect for five years.

TITLE VI—~~VI~~ GEOTHERMAL ENERGY

The Geothermal Energy Act of 1979 (Title V) establishes in the Department of Energy loan programs to promote the confirmation of geothermal reservoirs, and to provide funding for feasibility studies and construction of specific geothermal projects. The confirmation and feasibility study loans are forgivable if certain findings are made by the Secretary of Energy. The private sector is required to finance 50 percent of a confirmation loan for an electric application, 10 percent of a confirmation loan for a non-electric application, 10 percent of a feasibility study loan, and 25 percent of a construction loan. The interest rate in each case is equal to the interest rate set in the Water Resources Development Act.

A Federal insurance and reinsurance program is also established to protect against reservoir failure. Funding for this program will come from the Geothermal Resources Development Fund.

The loan guarantee limits in the Geothermal Loan Guarantee Program are raised from 75 percent to 90 percent for municipalities and cooperatives, and supplemental funding for loans and loan guarantees are made available to the Small Business Administration, the Rural Electric Administration, the Farmers Home Administration and HUD from the Geothermal Resources Development Fund.

The Secretary of Energy is directed to identify and report on the economic, institutional, regulatory, and technical impediments to the accelerated commercialization of geothermal energy in the specific areas of geopressured methane, hot dry rock, and environmental control technology as it relates to all areas of geothermal energy.

The Secretary is also directed to initiate a program for the use of geothermal energy in Federal buildings and each Federal agency is directed to fully consider the use of geothermal energy in its buildings, facilities, and installations.

Section 210 of the Public Utility Regulatory Policies Act of 1978 is amended, so that the exemptions from the Federal Power Act and the Public Utility Holding Company Act and other requirements will be available for geothermal projects 80 megawatts in size, rather than 30 megawatts currently, with one exception for which the limit is raised to 200 megawatts.

The Committee intends that DOE, is implementing the geothermal loan guarantee program under existing law and the new program

authorized by this Title for reservoir insurance will include, as part of the project costs eligible for a guarantee or insurance coverage, the necessary new transmission system required for interconnection of remote geothermal projects to existing transmission systems.

Also, the Committee feels that geothermal sites across the country should be examined, however, the major effort of the government has been in the West. This accurately reflects the interest of the industry, but sites in other parts of the country, for example New England, should also be examined.

TITLE VI—RENEWABLE ENERGY INITIATIVES

Title VI directs the Secretary to support the development of a coordinated renewable resources information dissemination network, which makes use of local, state and regional entities as well as Federal programs. The Secretary is also directed to establish a National Solar Energy Information Center for the purpose of providing informational and referral services to public and private organizations.

The Secretary is required to provide certain specific publications, materials, and outreach programs and is required further to assign to an appropriate element in DOE the principal responsibility for the development of these publications and materials.

Title VI requires the head of each Federal agency to incorporate, to the maximum extent practical, cost-effective solar energy systems in new and substantially renovated civilian Federal buildings. The definition of cost-effective requires a comparative test be made between the total life-cycle costs of the solar energy system and the total costs of an alternative conventional system. Fuel costs for the conventional system are to be based on the projected price of world oil.

The title amends the existing weatherization program to include materials associated with passive and active solar energy systems as eligible weatherization materials.

The title establishes a new program on energy self-sufficiency in an existing office in the Department of Energy. The program must initiate and encourage energy self-sufficiency at the local level and to demonstrate by 1990 energy self-sufficiency in some local jurisdiction.

The title provides a 30 percent small business set-aside and amends the Federal Photovoltaic Utilization Act to allow purchasing of photovoltaic systems for a wider range of uses by Federal agencies.

The budget authority for the title is \$50,000,000 from which no funds may be used for cost-effective solar energy systems in new or renovated civilian Federal buildings.

TITLE VII—~~VII~~ WIND ENERGY INITIATIVES

The Wind Energy Commercialization and Utilization Act of 1979 (Title VII) provides for a number of initiatives to promote the development and commercialization of wind systems:

(a) It requires the Secretary of Energy to establish a wind commercialization program including a program of low-interest loans for buyers of wind systems;

(b) It requires the Secretary of Energy to conduct a study of

By requiring, as a condition of financing the purchase of that residential building, that the energy audit report be made available to the purchaser, then existing owners or occupants will be more likely to accept the utility's offer to perform an energy audit. If no such audit report is on file at the time of purchase then the onus should shift to the purchaser to obtain the utility's energy audit, as the purchaser controls access to the building and is the party who would benefit from an energy audit of that building. Under section 215 of NECPA the utility is required to perform an audit of the residential building at the request of the new owner.

GEOTHERMAL (TITLE VII)

Three major pieces of legislation have been passed since 1970 to promote the development of geothermal resources in the United States. These are the Geothermal Steam Act of 1970 (Public Law 91-581), the Geothermal Energy Research, Development and Demonstration Act of 1974 (Public Law 93-410), and the five Acts that made up the 1978 National Energy Act—the Public Utility Regulatory Policies Act of 1978 (Public Law 95-617), the Energy Tax Act of 1978 (Public Law 95-618), the National Energy Conservation Policy Act (Public Law 95-619), the Power Plant and Industrial Fuel Use Act of 1978 (Public Law 95-620), and the Natural Gas Policy Act of 1978 (Public Law 95-621). These initiatives go a long way toward establishing a legal and regulatory framework favorable to commercial geothermal energy exploration and development, and incentives to stimulate early and widespread use by a variety of users. However, all of these Acts require improvements if the geothermal energy utilization objectives of the Federal Government are to be met.

The central force slowing geothermal development is found in the high economic risk perceived by drillers who explore for and confirm geothermal reservoirs. Statistics on drilling and leasing show that less than one-half of 1 percent of potential geothermal resource lands have been leased and only a small percent of leased lands have been drilled. It is thus not surprising that commercialization has not progressed since the most fundamental step, drilling, has not been taken.

The risk to the driller of successfully finding a commercial geothermal resource is indeed great. Often surface characteristics, chemical analyses, and shallow wells will suggest a viable reservoir. Confirming any reservoir, however, requires drilling many capital-intensive deep wells. Many drillers cannot afford the risk of drilling deep wells which prove to be unproductive. These unfavorable conditions have precluded the massive drilling effort needed to establish the true dimensions and locations of our most promising reservoirs.

The provisions of this title will address these problems by providing that the Federal Government will share the risk with drillers and developers.

ENERGY INITIATIVES (TITLE VII)

The Omnibus Solar Commercialization Act of 1979 (Title VI) establishes several incentive programs for the promotion of the ex-

hearings several amendments expanding the scope of the Residential Conservation Service Program (Title II, Public Law 95-619), in addition to several technical amendments to the same program. The Committee accepted these amendments during Full Committee markup on October 24, 1979.

INDUSTRIAL ENERGY CONSERVATION (TITLE IV, SUBTITLE H)

The Federal Non-Nuclear Research & Development Act, Public Law 93-577 provides authority for industrial energy conservation program functions in the areas of waste energy utilization, alternative materials utilization, industrial cogeneration, high temperature industrial process efficiency and low temperature process efficiency. In addition, the Energy Policy and Conservation Act, Public Law 94-163 and the National Energy Conservation Policy Act, Public Law 95-619 establish targets for industrial energy efficiency improvements and the use of recovered materials respectively.

RESIDENTIAL ENERGY AUDIT ACT OF 1979 (TITLE IV, SUBTITLE I)

On June 13, 1979, Senators Metzenbaum, Hatfield, Kennedy, Weicker, Leahy, Bradley and Tsongas introduced S. 1336, the Residential Energy Audit Act of 1979. The bill was referred to the Committee on Energy and Natural Resources. On October 23, 1979, the Committee adopted a modified version of this provision as an amendment to S. 932.

GEOHERMAL (TITLE V)

This title contains certain non-leasing provisions of the bills S. 1388 and S. 1330. The bill S. 1388, "The Omnibus Geothermal Energy Commercialization Act of 1979," was introduced by Senator Church, for himself and Senator Durkin, on June 21, 1979. The bill S. 1330, "The Omnibus Geothermal Energy Development Act of 1979," was introduced by Senator McClure on June 13, 1979.

Both bills were referred to the Committee on Energy and Natural Resources, and then to the Subcommittee on Energy Resources and Material Production. That Subcommittee held two days of hearings on the bills, on July 18 and 20, 1979, when the Subcommittee heard from numerous government and public witnesses.

Various non-leasing sections of these two bills were introduced as amendments to S. 932 at the regularly scheduled Committee meeting on October 24, 1979. After discussion, the amendments were approved by the Committee.

RENEWABLE ENERGY INITIATIVES (TITLE VI)

Senator Durkin introduced S. 950, the Omnibus Solar Energy Commercialization Act of 1979, on April 10, 1979, on behalf of himself and Mr. Tsongas, Mr. Matsunaga, Mr. Ribicoff and Mr. DeConcini. On June 11, 1979, S. 950 including a new section on wind energy initiatives was incorporated into S. 1308 as Title X.

Four hearings were held on S. 950 and Title X. As a result of these hearings, Title X was rewritten and introduced as S. 1844 on September 28, 1979. S. 1844 was added by amendment in Full Committee

Chlorine Production.
 Dry Quenching of Coke.
 Advanced Copper Reduction.
 Continuous Casting.
 Food and Food Processing.

SUBTITLE I—RESIDENTIAL ENERGY AUDIT ACT OF 1979

Sec. 226—Residential Energy Audits

Subsection (a) defines which buildings are subject to this section and establishes that any financial institution whose deposits are Federally insured may not finance the purchase of any residential building subject to this section unless an energy audit report is made available to the purchaser or he posts a bond, refundable when the audit is obtained. Although section 215 of NECPA requires the utility to offer to perform an energy audit every two years until January 1, 1985, subsection (a) provides that any energy audit prepared within the past five years will suffice for purposes of this section. It should be noted that the definition of "residential building" in section 219(9) is limited to buildings having no more than four dwelling units.

Subsection (b) defines exemptions to the general requirements of subsection (a). An exemption is provided where there has been a good faith effort to obtain the energy audit report and in the case of the State of Hawaii and geographic areas designated for exemption by the Secretary of Energy. In determining under paragraph (1)(2) the potential for energy savings, the Secretary shall consider energy consumed in air conditioning as well as heating.

Subsection (c) contains the date that this section becomes effective and the date it expires.

Subsection (d) makes it clear that nothing in this section shall operate so as to create a cloud on any title, or to invalidate or revoke any contract to purchase or to finance the purchase of a residential building. Moreover, the Committee intends that no civil or criminal penalties will result from anyone's failure to comply with the requirements of this title. No sanctions are explicitly provided against financial institutions who do not comply with this section but the Committee expects that they would nevertheless obey these provisions. The only sanctions under this section are that certain conditions apply (presentation of the energy audit report or posting of the bond) before the financial institution may agree to finance the purchase. The Committee intends that once the agreement to finance is made, then no requirement of this section would revoke, invalidate, or impede that financing agreement, or the contract to purchase, or the transfer of title.

TITLE VI—GEOTHERMAL ENERGY

SUBTITLE A—LOANS FOR GEOTHERMAL RESERVOIR CONFIRMATION

Section 511. This subtitle establishes a new loan program to assist the geothermal industry in exploring for and confirming the economic viability of geothermal reservoirs.

The Secretary is authorized to make loans from funds available in the Geothermal Resources Development Fund to any person to assist

in financing a portion of the costs of exploring for or confirming the economic viability of a geothermal energy reservoir.

Loans are paid back at a rate of not more than 20 percent of annual gross revenue from the sale of energy from the confirmed reservoir. If the reservoir is confirmed but not used commercially, a revenue may be imputed by the Secretary.

The Secretary may cancel the unpaid balance on any loan if the geothermal reservoir is determined to be technically or economically unacceptable for commercial development.

Section 512. No loan may exceed 50 percent of the drilling costs, except that for direct heat applications loans may be 90 percent of project costs, and in any event no loan shall exceed \$3 million.

Section 513. Loans are made at the same rate as water resources planning projects for a term of 20 years.

If revenues are inadequate to repay loan principal and interest within 20 years after production begins, any remaining unpaid amount shall be forgiven.

Section 514. The loan program shall terminate at the end of fiscal year 1986.

Section 515. Regulations made with respect to this subtitle are to be promulgated within one year after the date of enactment.

Section 516. Authorization is set at \$150 million for each year the loan program exists starting in fiscal year 1981. Amounts appropriated are to be deposited in the Geothermal Resources Development Fund.

Section 517. The loan guarantee program, established under the Geothermal Research, Development, and Demonstration Act of 1974, is amended by raising the limit from 75 percent to 90 percent of the principal costs of any project if the guarantee is made for a loan to an electric, housing or other cooperative, or to a municipality.

Section 521

Section 521 establishes in the Department of Energy a new reservoir insurance program to provide insurance and reinsurance against the risks associated with a geothermal reservoir failure or partial failure after significant investment in development and use (at least \$1,000,000) has occurred at a geothermal energy project dependent on the reservoir. The DOE reservoir insurance program will provide direct insurance only as necessary to supplement any existing private or public insurance available from commercial insurers or other public insurance programs, up to a maximum total insurance from private, public and DOE sources of \$50,000,000 or 90 percent of the investment, whichever is less. The program also may include DOE reinsurance of any direct reservoir insurance provided by a private insurer, and will include other efforts under other authority to obtain greater participation of the private insurance industry in the area of reservoir insurance. The Geothermal Resources Development Fund will be the source of funds necessary to support the reservoir insurance program by providing an appropriate reserve for the contingent obligations associated with direct insurance and reinsurance commitments resulting from the program, and \$100 million is authorized to be appropriated to the Fund to supplement funds otherwise available in the Fund. Also, any revenue from premiums paid on DOE insurance or reinsurance shall be deposited in the Fund.

Section 531

Section 531 establishes in the Department of Energy a new loan program for 90 percent of the costs of feasibility studies and regulatory applications and 75 percent of the costs of construction programs for development of proposed nonelectric geothermal systems. The loans for feasibility studies may be cancelled if the development of the proposed system is not feasible. All loans under the program will bear the same interest specified for water resources planning projects. The Geothermal Resources Development Fund will be the source of funds for the loan program, and an additional \$50,000,000 is authorized to be appropriated to the Fund to supplement funds otherwise available in the Fund.

Section 541

Section 541 amends Title II of the Geothermal Energy Research, Development and Demonstration Act of 1974, as amended, which is the existing Geothermal Loan Guarantee program, to increase the permissible coverage of the guarantee from 75 percent to 90 percent of the project costs for loans to municipalities, and other public cooperatives, as defined in section 3(7) of the Federal Power Act.

Section 542

Section 542 further amends Title II of the Geothermal Energy Research, Development and Demonstration Act of 1974, as amended, by effectively extending the Geothermal Loan Guarantee Program for an additional five years to 1989.

Section 543

Section 543 authorizes the Secretary of Energy to approve the use of funds from the Geothermal Resources Development Fund, established by Title II of the Geothermal Energy Research Development and Demonstration Act, as amended, as a source of supplemental funding to support loans and loan guarantees for geothermal development by the Small Business Administration, the Rural Electric Administration, the Farmers Home Administration and HUD in their existing programs under other authorities. The Secretary may not approve the use of more than a total of \$50 million from the Fund in any fiscal year for this supplemental funding to the specified agencies. For purposes of calculating the \$50 million limitation, loan guarantees shall be costed in accordance with the prevailing reserve ratio in use under its existing program by the agency making the loan guarantee commitment.

Section 544

Section 544 amends Title II of the Geothermal Energy Research, Development and Demonstration Act of 1974, as amended, the Geothermal Loan Guarantee Program, to add a new section which requires the Secretary to eliminate any duplication between any environmental analysis reports or environmental impact statements under NEPA prepared for the geothermal project which is the subject of a geothermal loan guarantee application and the E.A.R. or E.L.S. under NEPA prepared for the loan guarantee action. Since almost every geothermal energy project is already the subject of a NEPA E.A.R. or E.I.S. for other Federal actions, the loan guarantee

application will not require any additional E.A.R. or E.I.S., unless none is otherwise required. Thus, NEPA considerations of environmental impacts for purposes of the loan guarantee action will utilize any existing E.A.R. or E.I.S., rather than require an additional, duplicative E.A.R. or E.I.S. This section will clarify an apparent ambiguity in the Energy Department's interpretations of its responsibilities under the statutes governing the loan guarantee program.

Section 545

Section 545 amends Title II of the Geothermal Energy Research, Development and Demonstration Act of 1974, as amended, which is the geothermal loan guarantee program, by adding a new section to require the Secretary of Energy to institute a series of procedural reforms to implement more orderly and expeditious processing of geothermal loan guarantees. The reforms will set a deadline of four months for processing and reaching a decision on a geothermal loan guarantee application and include a number of procedural requirements designed to support that deadline. Additionally, the subsection (b) requires the new procedures to provide for expedited consideration of any applications for loan guarantees associated with non-electric projects by public entities. This section will establish new statutory requirements to correct the significant delays in the program over the past five years.

Section 546

Section 546 requires the Secretary of Energy to conduct three parallel studies related to the accelerated development of geothermal resources in the United States, including (1) geopressured methane, (2) hot dry rock systems, and (3) environmental control technology. The studies will provide a timely series of recommendations for additional administrative and legislative action to remove impediments and provide necessary incentives for these areas of geothermal resource development.

Section 547

Section 547 establishes a new program and requirement for Federal utilization of identified geothermal resources in Federal buildings, Federal facilities, Federal installations, and the Federal Power Marketing Administrations. The Secretary will coordinate the program with similar programs involving the use of energy conservation measures and solar energy in the Federal establishment, and is authorized to cost share with other Federal agencies the increment of capital costs associated with the geothermal system, as he deems appropriate to further geothermal development.

Section 550

Section 550 amends several provisions of the Public Utility Regulatory Policies Act of 1978 to add geothermal projects to the several other types of projects in that Act, which are granted particular regulatory treatment associated with ratemaking, wheeling of power, interconnections, and other utility requirements under the Federal Power Act, the Public Utility Holding Company Act and other laws. These amendments will place geothermal projects on the same general basis as cogeneration and renewable resource projects for purposes of

this regulation under PURPA. Any required changes to existing or proposed regulations under these sections of PURPA shall be made by amendment to such regulations, and shall not delay the effectiveness of those regulations.

~~TITLE VII~~ RENEWABLE ENERGY INITIATIVES

This title is an amended version Title I of S. 1844, which was proposed as a new title to S. 932 in full Committee mark-up.

Title I of S. 1844 established a national goal of 20 quads of renewable energy resources by the year 2000 and an Energy Coordinating Council to implement and monitor the goal.

It reorganized existing renewable resource information services into a coordinated network under the direction of the Secretary of Energy. It directed the Secretary to establish a National Solar Energy Information Center as part of the network, but established an overall policy that the Secretary should support local and regional dissemination services to the maximum extent practical. The Center was required to provide informational services and materials of specific types.

It established four Federal solar energy initiatives which: (1) required the use of certain solar energy systems in new Federal buildings, (2) expanded the weatherization program to include solar energy, (3) require Federal fueling stations to dispense gasohol according to a given schedule, and (4) expanded the authorities of the power marketing administration to promote their use of renewable resources.

S. 1844 also establishes a new office in the Department of Energy to develop and promote energy self-sufficiency programs at the local and state level.

TITLE VI—RENEWABLE ENERGY INITIATIVES

Section 601. Short Title

Section 602. Findings

The intent of this section is clear.

Section 603. Purpose

The Committee has re-written this section so that it reflects the actions in the following sections. In particular, the reference to a national goal and the Energy Coordinating Council was dropped by the Committee because the Administration had announced the same goal, and had placed the responsibility for coordinating the implementation and monitoring of the goal on the Energy Coordinating Council.

Section 604. Definition

The term "renewable energy resource" was expanded to explicitly include photovoltaic energy. The term "active solar system" was expanded to include electrical and mechanical as well as thermal systems. The term "passive solar energy system" was shortened and made less restricted.

Sec. 605. Information Dissemination and Outreach Services

The intent of this section is to reorganize existing renewable research information dissemination and outreach programs into a co-

The remaining amendments to the National Energy Conservation Act (Public Law 95-619) are not expected to result in significant costs to the federal government.

(By fiscal years, in millions of dollars)

	1980	1981	1982	1983	1984
Authorization level:¹					
Energy Conservation bank.....	150	450	450	450	450
Residential energy conservation grants.....	150	450	450	450	450
Residential energy efficiency program.....	100	300			
Industry energy conservation program.....	40	40	40		
Energy auditors training program.....	10	15			
Total.....	450	1,255	940	900	900
Estimated outlays:					
Energy conservation bank.....		460	500	470	470
Residential energy conservation grants.....	5	70	425	485	450
Residential energy efficiency program.....		50	100	100	100
Industrial energy conservation program.....	5	30	35	30	10
Energy auditors training program.....		5	10	10	
Total.....	10	615	1,070	1,095	1,030

¹ The bill also authorizes the appropriation of \$900,000,000 in fiscal year 1985 for the conservation bank and grants programs.

The costs of this title fall within budget function 270.

Title VI

Outlays for the loan programs established under Title V are based on information provided by the Department of Energy. Initial DOE plans call for funding of between 1,000 and 2,000 project studies under the feasibility study loan program at a cost of \$50,000 to \$100,000 per study. The Department estimates that perhaps as much as 50 percent (\$25 million) of the feasibility loans will be forgiven because projects fail to be implemented after the studies are completed. It is assumed that loans will be made at an interest rate of 7.375 percent per year based on the rates established by the Water Resources Development Act of 1974 (Public Law 93-251). Payments on feasibility study loans will be deferred for approximately three years and will be repaid within three years on average.

Loans for geothermal reservoir confirmation are based on a rigorous program covering as many as 1,000 exploratory geothermal wells by 1985. Loan levels are based on drilling costs of between \$400,000 and \$1.4 million over the projections period. Costs vary according to drilling conditions and are subject to relatively high inflation as demand for equipment increases. As much as 40 percent of the loans made may be forgiven in the next several years because of project failures. This ratio will depend on the rate at which loans are made. A slower program in which only the lowest risk projects are funded initially would experience a much lower failure rate (10 to 20 percent). It is estimated that approximately 50 percent of the loans will be forgiven over the program life. Loan repayments are not expected to occur until 1984 because repayments are to be covered by project revenues. Significant production resulting in such revenues is not likely to occur for approximately three years following exploratory drilling. Once production begins, however, loans are expected to be repaid within four years. The same interest rate is applied as for feasibility study loans.

The bill also establishes a reservoir insurance program to cover geothermal projects against premature depletion of reserves resulting from natural catastrophes or unanticipated geological changes. Such insurance is to be offered in the event that commercial sources are not available. Based on information from DOE, it is estimated that approximately 25 percent of the \$40 billion projected to be invested in geothermal projects over the next ten years will be covered by the program. The Department does not anticipate any major claims to occur by 1984, but because many of the projects covered may be of somewhat greater risk than those covered by commercial insurance, claims of between 2 and 5 percent of the investment covered are possible. (This would result in claims of between \$200 and \$500 million). The Department plans to charge an annual fee for insurance coverage. The level of this fee has not been established at this time.

In addition, the bill directs that other federal agencies may, subject to the approval of the Secretary of Energy, utilize the funds of the Geothermal Resources Development Fund to provide loans and loan guarantees for the development of geothermal energy. The use of the fund, however, is limited to \$50 million. The Department believes its own projects will require a significant share of the moneys currently appropriated to the fund and does not anticipate any additional expenditures of funds by other agencies over the next several years.

Several amendments to the Geothermal Research, Development, and Demonstration Act of 1974 regarding certain administrative requirements are also directed by this bill. No significant costs are expected to result. The bill also extends the loan guarantee program created by the act from 1984 to 1989.

Based on information provided by the Department of Energy, between 20 and 30 additional positions will be necessary to fulfill the requirements of this bill. This will result in additional costs of approximately \$1 million annually.

(By fiscal years, in millions of dollars)

	1980	1981	1982	1983	1984
Authorization level:					
Feasibility study loans	50				
Reservoir confirmation loans ¹		150	150	150	150
Reservoir insurance	100				
Total	150	150	150	150	150
Estimated outlays:					
Feasibility study loans	5	20	25	-2	-11
Reservoir confirmation loans		50	120	190	180
Reservoir insurance					
Total	5	70	145	188	169

¹ The bill also authorizes the appropriation of \$150,000,000 in fiscal year 1985 for the reservoir confirmation loan program.

The costs of this title fall within budget function 270.

Title VII

Although Title VI establishes several programs, no specific allocation by program of the funds authorized is made. Consequently, the outlay estimate is based on an assumed allocation. The actual alloca-

Financial institutions will probably have to present an additional form to the purchaser at the time of application for financing.

GEOTHERMAL ENERGY (TITLE VI)

Section 501 through 547 primarily relate to authorization and procedures for financial assistance programs for geothermal energy development in the form of loans, loan guarantees, reservoir insurance, and related studies. Any additional requirements for paperwork or recordkeeping that would be imposed on any private individual or business as a result of the programs in those sections would be restricted to that required in the administration of the programs for applicants for and recipients of financial assistance. Sections 544 and 545, however, include amendments to the existing Department of Energy geothermal loan guarantee authorities, which are intended to streamline the applications process for such loan guarantees and thereby reduce the administrative burden on applicants. The two sections remedy two areas of such administrative burden, which the Committee deemed to be excessive.

Section 550 amends the Public Utility Regulatory Policies Act of 1978 to include geothermal projects, including those of non-utility producers, under special procedures for Federally mandated wheeling and interconnection. This provision could involve some incidental increase in the use of these existing Federal regulatory authorities to require unwilling regulated electric utilities to provide wheeling and interconnection services for geothermal energy projects producing electricity. Because of the active participation of regulated electric utilities in most geothermal electric projects, and the availability of this mandatory Federal authority in any event, the Committee does not anticipate that this regulatory authority will have to be used other than infrequently.

Section 550 also grants to qualifying geothermal projects an expedited and minimized form of Federal regulation for ratemaking and other electric utility requirements under the Federal Power Act, the Public Utility Holding Company Act and other applicable laws. This provision will reduce the regulatory requirements and burden on the qualifying projects, which otherwise would be subject to the full extent of such requirements under those laws. The Committee's action places the qualifying geothermal projects on the same basis as renewable resource and co-generation projects for purposes of this streamlined form of regulation.

The only personal information which may be required of any person by this subtitle may be included as part of an application for financial assistance in certain circumstances. Any such required personal information would be associated with a voluntary application for such assistance, and would be necessary and appropriate to assess the financial and legal status of the applying project sponsors in the processing of the application. There would be no other impact on personal privacy resulting from this Title.

RENEWABLE ENERGY INITIATIVES (TITLE VI)

The Committee makes the following evaluation of the regulatory impact which would be incurred in carrying out title VI of S. 932.

96TH CONGRESS
1ST SESSION

S. 932

IN THE SENATE OF THE UNITED STATES

NOVEMBER 8 (legislative day, NOVEMBER 5), 1979

Ordered to be printed with the Senate amendments to the House amendments

[Omit the part struck through and insert the part printed in italic]

AN ACT

To extend the Defense Production Act of 1950, as amended.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That this Act may be cited as the "Defense Production Act
4 Extension Amendments of 1979".

5 ~~SEC. 2.~~ The first sentence of section 717(a) of the De-
6 fense Production Act of 1950 (50 U.S.C. App. 2166a) is
7 amended by striking out "September 30, 1979" and inserting
8 in lieu thereof "September 30, 1981".

Passed the Senate June 30 (legislative day, May 21),
1979.

Attest:

J. S. KIMMITT,

Secretary.

1 of a grant made under this part and not to exceed 5
 2 percent of a grant made to a State pursuant to section
 3 413(a), may be used for administration in carrying
 4 out the duties under this part”;

5 (2) by deleting in subsection (c)(1) the words
 6 “paragraph (2)” and inserting in lieu thereof “para-
 7 graphs (2) or (3),” and adding the following new para-
 8 graph (3) to the end of subsection (c):

9 “(3) the Administrator may use financial assist-
 10 ance provided under this part or increase the limitation
 11 of \$800 described in paragraph (1) to secure installa-
 12 tion of weatherization materials where the Administra-
 13 tor, with the concurrence of the Secretary of Labor, de-
 14 termines that there is an insufficient number of volun-
 15 teers and training participants and public service em-
 16 ployment workers, pursuant to the Comprehensive Em-
 17 ployment and Training Act of 1973, available to work
 18 on weatherization projects under the supervision of
 19 qualified supervisors and foremen.”

20 ^{VI}
 TITLE VI—GEOTHERMAL ENERGY

21 SHORT TITLE

22 SEC. 601. (a) This Title may be cited as the “Geother-
 23 mal Energy Act of 1979”.

24 (b) TABLE OF CONTENTS—

Sec. 601. Short Title.

SUBTITLE A

- Sec. 611. Loans for Geothermal Reservoir Confirmation.*
Sec. 612. Loan Size Limitation.
Sec. 613. Loan Rate and Repayment.
Sec. 614. Program Termination.
Sec. 615. Regulations.
Sec. 616. Authorizations.

SUBTITLE B

- Sec. 621. Reservoir Insurance Program.*

SUBTITLE C

- Sec. 631. Feasibility Study Loan Program.*

SUBTITLE D

- Sec. 641-649.*

SUBTITLE A

2 LOANS FOR GEOTHERMAL RESERVOIR CONFIRMATION

3 SEC. 611. (a) The Secretary of Energy (hereinafter re-
 4 ferred to as the Secretary) is authorized to make a loan from
 5 funds available in the Geothermal Resources Development
 6 Fund established under Public Law 93-410 to any munici-
 7 pality, electric cooperative, industrial development agency,
 8 nonprofit organization, or person for the purpose of exploring
 9 for or confirming the economic viability of a geothermal
 10 energy reservoir.

11 (b) Any such loan shall be repayable out of revenue
 12 from production of the geothermal energy reservoir for whose
 13 confirmation the well is drilled, at a rate not to exceed 20 per
 14 centum of the annual gross revenue from the reservoir, except
 15 that if any disposition of the geothermal rights to that reser-

1 voir is made by the borrower, the full amount of the loan
2 balance outstanding or the full amount of compensation re-
3 ceived, whichever is less, shall be paid immediately. If the
4 reservoir is confirmed, the Secretary may impute a reason-
5 able revenue for purposes of determining repayment (1) if
6 reasonable efforts are not made to put such reservoir in com-
7 mercial operation, (2) if the borrower or other person utilizes
8 the resources without a sale of energy, or (3) if a sale of
9 energy resources is made for an unreasonably low price. No
10 such imputation of revenue shall be made for a period of
11 three years following reservoir confirmation. In the event of
12 failure to begin production of revenue within five years of
13 drilling (or in the case where no sale of energy is made, the
14 production of energy for commercial use), the Secretary may
15 take action to recover the value, not to exceed the balance due,
16 of any assets of the project in question, including resource
17 rights.

18 (c) The Secretary may cancel the unpaid balance and
19 any accrued interest on any loan granted if he determines on
20 the basis of evidence presented by the loan recipient that the
21 geothermal energy reservoir, with regard to which the loan
22 was made, contains insufficient heat energy or has other
23 characteristics which make that reservoir economically or
24 technically unacceptable for commercial development.

LOAN SIZE LIMITATION

SEC. 612. *The amount of any loan shall not exceed 50 percent of the cost of a project consisting of surface exploration and drilling of one or more exploratory wells, except that the loan is to a person, municipality, nonprofit organization, corporation, or Indian tribe proposing to make application of the resource for space heating or cooling or process heat for one or more structures or facilities existing or under construction, the amount may be 90 per centum of project costs. No loan shall be made in excess of \$3,000,000.*

LOAN RATE AND REPAYMENT

SEC. 613. (a) *Each loan made pursuant to section 611 shall bear interest at the discount or interest rate used at the time the loan is made for water resources planning projects under section 80 of the Water Resources Development Act of 1974 (42 U.S.C. 1962(d)-17(a)).*

(b) *Each loan shall be for a term which the Secretary deems appropriate, but no loan term shall exceed twenty years beyond the date production begins. If revenues are inadequate to fully repay the principal and accrued interest within twenty years after production begins, any remaining unpaid amounts shall be forgiven.*

PROGRAM TERMINATION

SEC. 614. *No new loans shall be made under this authority after September 30, 1986. Amounts repaid prior to*

1 *September 30, 1986 on loans made pursuant to section 611*
2 *shall be deposited into the Geothermal Resources Develop-*
3 *ment Fund. Amounts repaid after that date and amounts re-*
4 *maining in the fund on or after that date and not required to*
5 *secure outstanding obligations shall be deposited into the*
6 *United States Treasury as miscellaneous receipts.*

7 **REGULATIONS**

8 *SEC. 615. All regulations made with respect to this title*
9 *shall be promulgated no later than one year after the date of*
10 *enactment of this Title.*

11 **AUTHORIZATIONS**

12 *SEC. 616. There are hereby authorized to be appropri-*
13 *ated for each of the five fiscal years beginning with fiscal*
14 *year 1981, not to exceed \$150,000,000 for loans to be made*
15 *pursuant to section 611. Amounts appropriated shall be de-*
16 *posited in the Geothermal Resources Development Fund and*
17 *shall remain available until expended.*

18 **SUBTITLE B**

19 **RESERVOIR INSURANCE PROGRAM**

20 *SEC. 621. (a) The Secretary of Energy is authorized*
21 *and directed to establish and implement within six months of*
22 *the enactment of this Title a program, in cooperation with the*
23 *insurance and reinsurance industry, to provide reservoir in-*
24 *surance to any qualified eligible applicant.*

25 *(b) For the purpose of this section, the term—*

1 (1) "investment" means the expenditure of, and
2 any irrevocable legal obligation to expend, funds (to-
3 gether with the reasonable interest costs thereof) for the
4 purchase or construction of machinery, equipment, and
5 facilities manufactured, or for services contracted to be
6 furnished, for the development and utilization of a geo-
7 thermal resource in the United States to provide
8 energy in the form of heat for direct use or for genera-
9 tion of electricity;

10 (2) "geothermal resource" means a resource in the
11 United States including: (A) all products of geothermal
12 processes embracing indigenous steam, hot water, and
13 hot brines; (B) steam and other gases, hot water and
14 hot brines resulting from water, gas, or other fluids ar-
15 tificially introduced into geothermal formations; (C)
16 heat or other associated energy found in geothermal
17 formations; and (D) any byproducts derived from
18 them, where "byproduct" means any mineral or miner-
19 als (exclusive of oil, hydrocarbon gas and helium)
20 which are found in solution or in association with
21 other geothermal resources and which have a value of
22 less than 75 per centum of the value of the geothermal
23 steam or are not, because of quantity, quality, or tech-
24 nical difficulties in extraction and production, of suffi-

1 cient value to warrant extraction and production by
2 themselves;

3 (3) "risk" means the hazard that a reservoir of
4 geothermal resources will cease to provide sufficient
5 quantities of geothermal resources at minimum condi-
6 tions required to maintain an economically or techni-
7 cally viable operation for utilization of the geothermal
8 resource;

9 (4) "reasonable premiums" means premium
10 amounts determined by the Secretary to be reasonable
11 in light of the amount of investment subject to the risk
12 and premiums charged in similar or analogous situa-
13 tions by private insurers where private insurance is
14 concerned and by insurers or guarantors, both public
15 and private, where public insurance is concerned;

16 (5) "other insurance" means any combination of
17 private or public insurance other than investment in-
18 surance provided by the Secretary under this section;

19 (6) "reservoir" means the physical subsurface
20 geologic structure which forms the natural repository
21 for the undisturbed geothermal resource;

22 (7) "person" means any public or private agency,
23 institution, association, partnership, corporation, politi-
24 cal subdivision, or other legal entity, where any such
25 entity is a United States citizen, as determined by ap-

1 *plication of the test for United States citizenship con-*
2 *tained in section 802 of Title 46, United States Code*
3 *or section 883-1 (a) through (e) of Title 46, United*
4 *States Code.*

5 *(c) Any person with a total direct investment of not less*
6 *than \$1,000,000 in the development and use, not including*
7 *exploration and testing, of a geothermal resource associated*
8 *with a reservoir, and unable to obtain other insurance at rea-*
9 *sonable premiums for the amount of his investment subject to*
10 *risk, as determined by the Secretary under this section, shall*
11 *be eligible for investment insurance.*

12 *(d) Any eligible person seeking investment insurance*
13 *under this section shall file an application with the Secretary*
14 *setting forth: (1) the total amount of the contemplated invest-*
15 *ment in a geothermal resource and associated reservoir; (2)*
16 *the views of the applicant concerning the nature and extent of*
17 *the risk, including a geologic, engineering, and financial as-*
18 *essment based on site specific results of exploration and test-*
19 *ing of the geothermal resource and the reservoir as specific as*
20 *is possible; (3) the status of all required Federal, State, and*
21 *local approvals, permits, and leases for the proposed develop-*
22 *ment and utilization operations at the site; and (4) the extent*
23 *to which the applicant has been able to obtain other insur-*
24 *ance against the risk; and such other information as the Sec-*
25 *retary may require.*

1 (e) Unless the Secretary determines the risk proposed
2 by the applicant is unreasonable, the Secretary, within
3 ninety days of receipt of a satisfactory application, shall de-
4 termine in writing and submit to the applicant: (1) the risk
5 which may cause loss of investment for the applicant; (2) the
6 total investment subject to the risk; (3) the amount of the
7 other insurance which is available at reasonable premiums
8 for the purpose of indemnifying the applicant against the
9 risk; (4) the amount of investment insurance available pur-
10 suant to this section, which shall be the difference between
11 the total investment subject to the risk and the total other
12 insurance determined to be available at reasonable premi-
13 ums, but not in excess of 90 per centum of, or \$50,000,000
14 of, whichever is the lesser, the loss of investment subject to
15 the risk; and (5) any reasonable terms and conditions neces-
16 sary for the prudent administration of the program, including
17 reasonable premiums for the insurance pursuant to this sec-
18 tion (which shall be deposited in the Geothermal Resources
19 Development Fund).

20 (f) The Secretary, within ninety days of the determina-
21 tions under subsection (e), and upon agreement of the appli-
22 cant to the determinations, shall issue a certificate of insur-
23 ance, which shall not be transferrable without the express
24 approval of the Secretary for good cause shown, with any
25 specified terms and conditions and shall execute a contract

1 with the applicant setting forth the terms and conditions of
2 the investment insurance, and such other provisions as may
3 be necessary to protect the interests of the United States, in-
4 cluding ownership, use, and disposition of any currency,
5 credits, assets, or investments on account of which payment
6 under such insurance is to be made, and any right, title,
7 claim, or course of action existing in relation thereof.

8 (g) Any holder of a certificate of insurance pursuant to
9 subsection (f) who claims a loss of value of his investment by
10 reason of the risk shall receive compensation to the extent the
11 Secretary determines that: (1) such holder is eligible to re-
12 ceive compensation pursuant to the certificate and the con-
13 tract; and (2) the amount and loss incurred by the holder
14 which is subject to insurance and for which the holder has
15 not received and will not receive compensation from other
16 insurance.

17 (h) Any compensation received by the holder shall be
18 withdrawn from the Geothermal Resources Development
19 Fund. The full faith and credit of the United States is here-
20 by pledged to the payment of any compensation under this
21 section.

22 (i) A person shall not be denied insurance pursuant to
23 this section, solely because such person is the recipient of any
24 other Federal assistance under this Act, or any other Act.

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1 (j) There are hereby authorized to be appropriated to the
2 Geothermal Resources Development Fund, established pur-
3 suant to the Geothermal Energy Research, Development and
4 Demonstration Act of 1974 (30 U.S.C. 1144), as amended,
5 an amount not to exceed \$100,000,000, for fiscal year 1980
6 which shall be available until expended.

7 (k) The Secretary may also enter into agreements to
8 reinsure any private insurer for any risk associated with in-
9 surance for development and utilization of a geothermal re-
10 source and associated reservoir, using the procedures of sub-
11 sections (c) through (i), as he deems appropriate to provide an
12 incentive for the participation of the private insurance indus-
13 try in geothermal development. The Secretary also is author-
14 ized and directed to use any other available authority to ob-
15 tain such greater participation of the private insurance in-
16 dustry. The Secretary shall submit a report to the Congress
17 within one year of the enactment of this section on the need
18 for any additional authorities to obtain such participation.

19 **SUBTITLE C**

20 **FEASIBILITY STUDY LOAN PROGRAM**

21 **SEC. 631.** (a) The Secretary of Energy is authorized
22 and directed to establish a program of assistance for the ac-
23 celerated development of geothermal resources for nonelectric
24 applications by geothermal utility districts, geothermal in-

1 *dustrial development districts and projects, and other per-*
2 *sons.*

3 **(b)** *The Secretary is authorized to make a loan to any*
4 *qualified applicant, pursuant to subsection (a), to defray the*
5 *costs of up to 90 per centum for (1) studies to determine the*
6 *feasibility of such geothermal development pursuant to sub-*
7 *section (a) and (2) preparing any application for any neces-*
8 *sary license or other Federal, State, and local approvals re-*
9 *specting such development. The Secretary may cancel the un-*
10 *paid balance and any accrued interest on any loan granted*
11 *pursuant to this subsection if he determines on the basis of*
12 *the study, that such development is not technically or eco-*
13 *nomically feasible.*

14 **(c)** *The Secretary is authorized to make a loan to any*
15 *qualified applicant, pursuant to subsection (a), to defray the*
16 *costs of up to 75 per centum of the costs directly related to the*
17 *construction of systems for nonelectric geothermal develop-*
18 *ment pursuant to subsection (a), where the Secretary finds—*

19 **(1)** *all necessary licenses and other required Fed-*
20 *eral, State, and local approvals for construction of sys-*
21 *tems have or will be issued,*

22 **(2)** *the project will have no significant adverse*
23 *impact on the environment, and*

24 **(3)** *the applicant requires such assistance for the*
25 *project.*

1 (d) Each loan made pursuant to this section shall bear
2 interest at the discount or interest rate used at the time the
3 loan is made for water resources planning projects under sec-
4 tion 80 of the Water Resources Development Act of 1974 (42
5 U.S.C. 1962(d)-17(a)). Each loan shall be for such term, as
6 the Secretary deems appropriate, but not in excess of ten
7 years for loans under subsection (b) and thirty years for
8 loans under subsection (c).

9 (e) Amounts repaid on loans made pursuant to this sec-
10 tion shall be deposited in the Geothermal Resources Develop-
11 ment Fund. Loans pursuant to this section shall be funded
12 by the Geothermal Resources Development Fund. There are
13 hereby authorized to be appropriated to the Geothermal Re-
14 sources Development Fund, for the purposes of this section,
15 \$50,000,000 in fiscal year 1980, which shall remain availa-
16 ble until expended.

17 SUBTITLE D

18 SEC. 641. Title II of the Geothermal Research, Devel-
19 opment, and Demonstration Act of 1974 (30 U.S.C. 1101, et
20 seq.), as amended, hereafter in this Title referred to as "the
21 Act", is amended by adding at the end of section 201(c) (30
22 U.S.C. 1141(c)) "except that any guarantee made for a loan
23 to an electric, housing, or other cooperative, or to a munici-
24 pality, as defined in section 3(7), part I, of the Federal
25 Power Act, may apply to so much of the principal amount as

1 *does not exceed 90 percent of the aggregate costs of the*
2 *project.”.*

3 *SEC. 642. Section 1141(b) of the Act is further*
4 *amended by—*

5 *(1) striking out the period at the end of paragraph*
6 *(5) and inserting in lieu thereof a semicolon and “or;”*
7 *and,*

8 *(2) adding at the end of paragraph (5) the follow-*
9 *ing new subparagraph:*

10 *“(6) in the case of a geothermal facility, the prin-*
11 *cipal purpose of which is the generation of electrical*
12 *power, the construction of electrical transmission lines,*
13 *whether land or marine based, from the generating fa-*
14 *ility to the intertie with an existing transmission*
15 *line.”.*

16 *SEC. 643. Section 1143 of the Act is amended by strik-*
17 *ing “1974” and insert in lieu thereof “1979”.*

18 *SEC. 644. The Administrator of the Small Business*
19 *Administration, the Administrator of the Rural Electric Ad-*
20 *ministration, the Administrator of the Farmers Home Ad-*
21 *ministration, and the Secretary of Housing and Urban De-*
22 *velopment may, with the express approval of the Secretary of*
23 *Energy, utilize funds in the Geothermal Resources Develop-*
24 *ment Fund established by section 1144 of the Geothermal*
25 *Energy Research, Development and Demonstration Act of*

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1 1974 (30 U.S.C. 1101, et seq.), as amended, and the proce-
2 dures of subsection 1144(c), for the purpose of providing loan
3 or loan guarantee assistance, consistent with the objectives of
4 that Act, for geothermal energy development and directly re-
5 lated activity, by means of loan and loan guarantee programs
6 otherwise authorized by law in such agencies and depart-
7 ments. Such assistance shall be in full conformance with any
8 requirements or limitations in such laws authorizing such
9 assistance. The total amount of all such assistance using the
10 Geothermal Resources Development Fund shall not exceed
11 \$50,000,000 of the total amount of funds available in the
12 fund in any fiscal year.

13 SEC. 645. The Act is further amended by adding new
14 section 1146, as follows:

15 "SEC. 1146. The Secretary shall ensure, to the maxi-
16 mum extent possible, that any action associated with a loan
17 guarantee under this chapter, which is pursuant to section
18 102(c) of the National Environmental Policy Act, takes the
19 maximum cognizance allowable under law of any other ac-
20 tion associated with the project, which is the subject of the
21 loan guaranty. No such action associated with the loan guar-
22 anty shall duplicate any such action associated with such
23 project."

24 SEC. 646. (a) The Act is further amended by adding
25 new section 1147, as follows:

1 "SEC. 1147. (a) *The Secretary of Energy within sixty*
2 *days after enactment of this section shall establish and imple-*
3 *ment orderly and expeditious procedures for the processing of*
4 *loan guarantee applications pursuant to subchapter II of this*
5 *Act. The procedures shall require that all such applications*
6 *shall be approved or disapproved within four months of the*
7 *date of filing. Such procedures shall include, at a minimum,*
8 *explicit direction on the handling of such applications, ex-*
9 *press deadlines for the solicitation and collection of views of*
10 *the consulted officials in the Department of Energy and in*
11 *any other appropriate Department or agency (with identified*
12 *officials responsible for meeting such deadlines), a Depart-*
13 *ment of Energy coordinating authority to monitor the proc-*
14 *essing of such applications, predetermined procedures for*
15 *expeditious handling on intradepartment and interagency*
16 *disagreements and appeals to higher authorities, and similar*
17 *administrative mechanisms. To the maximum extent practi-*
18 *cal, an applicant should be advised of all information re-*
19 *quired of the applicant for the entire process for every depart-*
20 *mental element and agency's needs at the beginning of the*
21 *process. Potentially controversial applications should be identi-*
22 *fied as quickly as possible so that any required policy deci-*
23 *sions or consultations can be initiated in a timely manner.*
24 *An immediate effort should be undertaken to establish quick-*
25 *ly any necessary standards and criteria, including the nature*

1 of any, required assurances, certifications, or evidentiary
2 showing, for the decisions required by this section. The proc-
3 essing of any application proposed and filed as of the date of
4 enactment of this section shall not be delayed pending the
5 implementation of these procedures. Any such application,
6 however, shall be subject to final approval or disapproval in
7 not more than four months after such enactment.

8 “(b) The Secretary of Energy shall include in the pro-
9 cedures required by subsection (a) expedited consideration of
10 loan guarantees for nonelectric applications of geothermal en-
11 ergy, generally, and specifically for nonelectric applications
12 by municipal utilities, geothermal utility districts, geother-
13 mal industrial development districts, rural cooperatives, and
14 other such public entities seeking to develop geothermal en-
15 ergy for community, rural, and local industrial applica-
16 tions.”.

17 SEC. 647. (a) The Secretary of Energy shall initiate
18 immediately a full and complete review of all relevant consid-
19 erations associated with the significantly accelerated develop-
20 ment of geopressures methane in the United States and on
21 the Outer Continental Shelf, with emphasis on legal, institu-
22 tional, and regulatory barriers to such development. The re-
23 view also shall address the current status of technology devel-
24 opment to support such accelerated development, and shall
25 consider the earliest opportunities for demonstration efforts.

1 *The review shall be coordinated with the Interagency Geo-*
2 *thermal Coordinating Committee. The Secretary shall sub-*
3 *mit a report to the Congress, within six months of the enact-*
4 *ment of this section with appropriate recommendations for*
5 *any administrative or legislative actions necessary to support*
6 *such accelerated development of geopressures methane.*

7 **(b)** *The Secretary of Energy and the Secretary of the*
8 *Interior shall initiate immediately a full and complete review*
9 *of all relevant considerations associated with the significant-*
10 *ly accelerated development of the potential of hot dry rock*
11 *systems in the United States, with primary emphasis on the*
12 *status of technology development to support such accelerated*
13 *development. The review also shall address the earliest oppor-*
14 *tunities for demonstration projects, specifically including*
15 *such projects at facilities and installations of the Federal*
16 *Government. The review additionally shall consider any*
17 *legal, institutional, or regulatory barriers to such develop-*
18 *ment. The review shall be coordinated with the Interagency*
19 *Geothermal Coordinating Committee. The Secretary shall*
20 *submit a report to the Congress, within six months of the*
21 *enactment of this section, with appropriate recommendations*
22 *for any administrative or legislative action necessary to sup-*
23 *port such accelerated development of hot dry rock systems.*

24 **(c)** *The Secretary of Energy, in coordination with the*
25 *Interagency Geothermal Coordinating Committee, and with*

1 *the Administrator of the Environmental Protection Agency,*
2 *shall immediately conduct a full and complete review of the*
3 *need for environmental control technology, generic or special-*
4 *ized for a particular form of geothermal energy, to support,*
5 *pursuant to all applicable Federal environmental laws, the*
6 *significantly accelerated development of all forms of geother-*
7 *mal energy. The review shall also include the adequacy of the*
8 *Department of Energy's environmental control technology*
9 *development program for geothermal energy. The Secretary*
10 *shall submit a report on the review to the Congress, within*
11 *six months of the enactment of this section, with appropriate*
12 *recommendations for any administrative or legislative ac-*
13 *tions necessary to support such accelerated development of all*
14 *forms of geothermal energy in the United States.*

15 *SEC. 648. The Secretary of Energy is authorized and*
16 *directed to initiate a new program for utilization of geother-*
17 *mal energy in Federal buildings, Federal facilities, and Fed-*
18 *eral installations in the United States. The program shall, to*
19 *the maximum extent feasible, be developed in full coordina-*
20 *tion with the existing programs for solar utilization and en-*
21 *ergy conservation in Federal buildings and installations. The*
22 *Secretary is authorized to cost share with any other Federal*
23 *agency or department the incremental increase in retrofit or*
24 *new construction costs resulting from initial capitalization of*
25 *any such geothermal system in a Federal building. facili...*

1 or installation, to the extent the Secretary deems appropriate
2 to provide a further incentive for geothermal development in a
3 given geographical area or on a nationwide basis. The Secre-
4 tary also shall direct each power marketing administration in
5 the Department of Energy to consider affirmatively the de-
6 velopment and use of geothermal energy in its system. The
7 option of use of geothermal energy shall be considered fully
8 in any new Federal building, facility, or installation in
9 geothermal resource areas designated by the Secretary of
10 Energy.

11 SEC. 649. *The Public Utility Regulatory Policies Act*
12 *of 1978, Public Law 95-617, is amended, as follows:*

13 (a) Section 201 is amended by inserting "geothermal
14 resources" after "renewable resources" in the definition of
15 "small power production facility" in subsection (17)(A)(i) of
16 section 3 of the *Federal Power Act*.

17 (b) Section 202 is amended by inserting "geothermal
18 power producers, including nonutility producers" after
19 "any" in the phrase, "Upon application of any" at the begin-
20 ning of subsection (a)(1) of section 210 of the *Federal Power*
21 *Act*.

22 (c) Section 203 is amended by inserting "geothermal
23 power producers, including nonutility producers," after
24 "Any" at the beginning of subsection (a) of section 211 of the
25 *Federal Power Act*.

1 (d) Section 210 is amended by—

2 (1) inserting "geothermal power producers of not
3 more than 80 MWe capacity", after "encourage" in
4 the phrase "necessary to encourage" at the beginning
5 of subsection 210(a), and

6 (2) inserting "geothermal power producers of not
7 more than 80 MWe capacity", after "which" in the
8 phrase "prescribe rules under which" in subsection
9 210(e)(1).

10 (3) inserting "and multiple geothermal project
11 units at a site with a total maximum of not more than
12 140 MWe capacity "after the matter inserted by sub-
13 section (1) and after matter inserted by subsection (2).

14 **TITLE VII—RENEWABLE ENERGY**

15 **INITIATIVES**

16 **SHORT TITLE**

17 **SEC. 701.** (a) This Title may be cited as the "Omnibus
18 Solar Commercialization Act of 1979".

19 (b) **TABLE OF CONTENTS—**

Sec. 701. Short title.

Sec. 702. Findings.

Sec. 703. Purpose.

Sec. 704. Definitions.

Sec. 705. Information Dissemination and Outreach Services.

Sec. 706. Energy Initiatives in New and Renovated Federal Buildings.

Sec. 707. Energy Self-Sufficiency Initiatives.

Sec. 708. Small Business Set-Aside.

Sec. 709. Photovoltaic Amendments.

Sec. 710. Authorization of Appropriations.

Sec. 711. Small-Scale Hydropower Initiatives.

Sec. 712. Rules and Regulations.

Sec. 713. Authorization of Appropriations.

96TH CONGRESS
1ST SESSION

H. R. 6080

To amend the Geothermal Steam Act of 1970 to accelerate the priority development of geothermal energy in the United States.

IN THE HOUSE OF REPRESENTATIVES

DECEMBER 11, 1979

Mr. SANTINI (for himself, Mr. UDALL, Mr. SYMMS, Mr. BUNNELS, Mr. YOUNG of Alaska, Mr. MURPHY of Pennsylvania, Mr. MARIOTT, Mr. RAHALL, Mr. WHITTAKER, and Mr. HUCKABY) introduced the following bill; which was referred to the Committee on Interior and Insular Affairs

A BILL

To amend the Geothermal Steam Act of 1970 to accelerate the priority development of geothermal energy in the United States.

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

3 SECTION 1. This Act may be cited as the "Geothermal
4 Resources Act Amendments of 1979".

5 SEC. 2. Whenever an amendment or repeal contained in
6 this Act is expressed in terms of amendment to, or repeal of,
7 a section or other provision of "the Act", such reference shall

1 be considered a reference to an amendment to, or repeal of, a
2 section or other provision of the Geothermal Resources Act
3 of 1970 (30 U.S.C 1001 and following; Public Law 91-581).

4 SEC. 3. (a) Section 2(c) of the Act is amended by strik-
5 ing out "steam and associated geothermal" and by inserting
6 after "brines" in the first place it appears the following:
7 "geopressured water, magma, and hot rock formations".

8 (b) Section 2(d) of the Act is amended by striking out
9 "steam" both places it appears and inserting in lieu thereof
10 "resources".

11 (c) Section 5(d) of the Act is amended by striking out
12 "steam and byproduct" and inserting in lieu thereof
13 "resources".

14 (d) Section 6(a) of the Act is amended by striking out
15 "steam is" both places it appears and inserting in lieu thereof
16 "resources are".

17 (e) Section 6(b) of the Act is amended by striking out
18 "steam is" and inserting in lieu thereof "geothermal re-
19 sources are".

20 (f) Section 6(c) of the Act is amended by striking out
21 "steam is" the first place it appears and inserting in lieu
22 thereof "resources are", and by striking out "steam is" the
23 second place it appears and inserting in lieu thereof "geo-
24 thermal resources are".

1 (g) Sections 6(d) and 6(e) of the Act are amended by
2 striking out "steam" each place it appears and inserting in
3 lieu thereof "resources".

4 (h) Section 6(f) of the Act is amended by striking out
5 "steam and associated geothermal".

6 (i) Section 8 of the Act is amended—

7 (1) by striking out "steam is" both places it ap-
8 pears and inserting in lieu thereof "resources are"; and

9 (2) by striking out "ten" both places it appears
10 and inserting in lieu thereof "twenty".

11 (j) Section 9 of the Act is amended by striking out
12 "steam" and inserting in lieu thereof "resources".

13 (k) Section 19 of the Act is amended by striking out
14 "steam" and inserting in lieu thereof "resources".

15 (l) Section 23 of the Act is amended by striking out
16 "steam and associated geothermal" both places it appears.

17 SEC. 4. (a) Section 2(e) of the Act is amended to read as
18 follows:

19 "(e) 'known geothermal resources area' means
20 lands designated by the Secretary as a known geother-
21 mal resource area prior to October 1, 1979, or lands
22 for which there is substantial physical evidence, includ-
23 ing the geology of such lands or a discovery on such
24 lands which would indicate to the Secretary that the
25 prospects for extraction of geothermal resources for the

1 primary purpose of generating electricity in commercial
2 quantities are good enough to warrant substantial ex-
3 penditures for that purpose."

4 (b) The first paragraph of section 4 of the Act is amend-
5 ed by inserting the following after "area" in the second sen-
6 tence thereof: "or if the lands are within a known geothermal
7 resources area and have been offered once for competitive
8 bidding at a sale where no bids for such lands were
9 received".

10 (c) If any lands in a known geothermal resources area
11 have not been the subject of a competitive bidding procedure
12 before the date of enactment of the Geothermal Resources
13 Act Amendments of 1979, the Secretary shall conduct a
14 competitive bidding procedure for all such lands within such
15 area within one year after the date of enactment of the Geo-
16 thermal Resources Act Amendments of 1979 (or shall report
17 to Congress as to why and as to what areas a competitive
18 bidding procedure has not been conducted). If, upon comple-
19 tion of such competitive bidding procedure, qualified bids
20 were not received, the Secretary shall immediately withdraw
21 the designation of such lands, for which bids were not re-
22 ceived, as a known geothermal resources area, and shall im-
23 mediately make available such lands, for which bids were not
24 received, for lease to the first qualified person making appli-

1 cation, and such person shall be entitled to a lease without
2 competitive bidding.

3 SEC. 5. The Act is amended by inserting the following
4 new section immediately after section 4:

5 "SEC. 4A. (a) Any qualified person first making applica-
6 tion for a geothermal lease of lands under this Act which are
7 not designated by the Secretary as a known geothermal re-
8 sources area on the date of such application shall be entitled
9 to a lease of such lands without competitive bidding notwith-
10 standing the first sentence of section 4 unless such lands are
11 so designated within one year after the date of such
12 application.

13 "(b) Notwithstanding the first sentence of section 4, any
14 qualified person first making application for a geothermal
15 lease of lands under this Act which are not designated by the
16 Secretary as a known geothermal resources area on the date
17 of such application but which are so designated within one
18 year after the date of such application shall be entitled to a
19 noncompetitive lease of such lands under this subsection at a
20 rate determined on the basis of competitive bidding. No per-
21 son otherwise entitled to a lease of such lands under such
22 competitive bidding (hereinafter in this section referred to as
23 the competitive bidding applicant) shall be entitled to a lease
24 covering such lands if the noncompetitive applicant referred
25 to in this subsection agrees to enter into a lease of such lands

1 within such reasonable period following the competitive bid-
2 ding as the Secretary deems appropriate and at a rate which
3 is equal on a per acre basis, to the rate at which such lands
4 would have been leased to the competitive bidding applicant.

5 “(c) Subsections (a) and (b) shall take effect with respect
6 to all applications filed with the Secretary on or after the
7 date of the enactment of this section. In the case of applica-
8 tions for geothermal leases under this Act of any lands which
9 were not designated by the Secretary as a known geothermal
10 resources area before such date of enactment, if such applica-
11 tions were filed with the Secretary before such date of enact-
12 ment but were not approved or rejected by the Secretary
13 before such date, the qualified person first making application
14 for such a lease shall be entitled to a lease of such lands
15 without competitive bidding notwithstanding the first sen-
16 tence of section 4 unless such lands are so designated within
17 one year after the date of the enactment of this Act. If such
18 lands are so designated within such one-year period, such
19 applicant shall be entitled to a noncompetitive lease of such
20 lands under this subsection at a rate determined on the basis
21 of competitive bidding. No competitive bidding applicant shall
22 be entitled to a lease covering such lands if the noncompeti-
23 tive applicant referred to in this subsection agrees to enter
24 into a lease of such lands within such reasonable period fol-
25 lowing the competitive bidding as the Secretary deems ap-

1 appropriate and at a rate which is proportionate, on a per acre
2 basis, to the rate at which such lands would have been leased
3 to the competitive bidding applicant.”.

4 SEC. 6. The Act is amended by inserting after section
5 10 the following new section:

6 “SEC. 10A. (a) Notwithstanding any provision of the
7 Department of Energy Organization Act (42 U.S.C. 7101 et
8 seq.), the Secretary, immediately upon the enactment of the
9 Geothermal Resources Act Amendments of 1979, shall pro-
10 mulgate regulations that will ensure prompt reoffering of all
11 relinquished, abandoned, and expired geothermal leaseholds.

12 “(b) Upon a determination by the Secretary that a geo-
13 thermal leasehold or any part thereof is abandoned, relin-
14 quished, or expired, such lands as are described in the lease,
15 or the part thereof subject to such a determination, shall be-
16 come lands subject to geothermal leasing as described in sec-
17 tion 3.

18 “(c) The provisions of this section are in addition to and
19 not in lieu of the provisions of sections 10 and 24.”

20 SEC. 7. (a) Section 3 of the Act is amended—

21 (1) by striking out “steam and associated geother-
22 mal”; and

23 (2) by striking out “and (3)” and inserting in lieu
24 thereof the following: “(3) in any lands withdrawn or
25 acquired in aid of the functions of any department or

1 agency of the Federal Government, including the De-
2 partment of Defense, and (4)".

3 (b) Section 4(e) of the Act is amended by striking out
4 "steam" and inserting in lieu thereof "resources".

5 SEC. 8. Section 18 of the Act is amended by adding at
6 the end thereof the following new paragraph:

7 "Notwithstanding any provision of this Act, all diligent
8 development requirements, including but not limited to drill-
9 ing, shall cease upon a demonstration by the lessee compris-
10 ing a unit that the geothermal resources of the unit are pro-
11 duced and utilized in commercial quantities as defined in sec-
12 tion 6(d)."

13 SEC. 9. Section 6(d) of the Act is amended by inserting
14 after "delivery to or utilization by" the following: ", or in the
15 case of utilization facilities to be owned by the lessee, proof
16 of commitment to construct".

17 SEC. 10. (a) Section 7 of the Act is amended by striking
18 out "twenty thousand four hundred and eighty" and inserting
19 in lieu thereof "fifty-one thousand two hundred".

20 (b) Such section 7 is further amended by striking out the
21 second paragraph and by adding at the end thereof the fol-
22 lowing: "Any lease which contains a well shown to be capa-
23 ble of being commercially productive as determined by the
24 United States Geological Survey shall be exempted from the
25 acreage limitation contained in the preceding sentence."

1 SEC. 11. Section 15(b) of the Act is amended by adding
2 at the end thereof the following: "The Secretary shall consult
3 with the head of any other Federal agency or department for
4 whose purposes lands have been withdrawn or acquired to
5 determine appropriate terms or conditions prior to issuing
6 leases for such lands. The head of the Federal agency or
7 department which administers any land which is subject to a
8 geothermal lease or which is available for geothermal leas-
9 ing, shall, in making land use decisions regarding such land
10 or adjacent lands, take account of their potential for geother-
11 mal resources development."

 SEC. 12. Section 23 of the Act is amended by adding
13 after subsection (b) the following:

14 "(c) Where the Secretary finds it in the public interest,
15 the Secretary is authorized to issue permits for the use of
16 geothermal resources in lands administered by him for any
17 noncommercial application without requiring a lease or com-
18 pensation therefor. No such free use permit may be issued for
19 the purpose of generating electricity in any amount. No such
20 free use permit may be issued on lands administered by the
21 Secretary of Agriculture without his concurrence.

22 "(d) The head of each Federal agency may develop for
23 the use or benefit of such agency any geothermal energy re-
24 source within lands under this jurisdiction. The head of such
25 agency shall determine in writing with the concurrence of the

1 Department of the Interior and the Department of Energy
2 that such utilization is in the public interest, and will not
3 deter commercial development which might otherwise be
4 conducted for such resource if it were offered for leasing
5 under this Act.”

6 SEC. 13. The Act is further amended by adding the fol-
7 lowing new section at the end thereof:

8 “SEC. 28. The Secretary shall establish the following
9 leasing and operating goals which shall be adopted promptly
10 following enactment of the Geothermal Resources Act
11 Amendments of 1979:

12 “(1) Lease application information shall indicate
13 clearly and concisely all requirements for information
14 and action by the applicant necessary for timely proc-
15 essing of the application, the responsible officials with
16 their respective responsibilities and contact information,
17 the specific steps in the process, the time limits for
18 such steps, and any options or appeals available to the
19 applicant, among any other relevant information. To
20 the maximum extent feasible, all requirements for in-
21 formation and action by the applicant, such as the
22 geothermal resources exploration bond form and such
23 bonding, shall be uniform among the several
24 departments.

1 “(2) Any lease application shall be reviewed and
2 an initial report prepared within sixty days of filing, in-
3 dicating the results of the initial review, what disposi-
4 tion is proposed, and the projected time to complete
5 action on the application.

6 “(3) All action on a lease application shall be
7 completed within one year of the filing of the
8 application.

9 “(4) An operating permit to conduct exploration
10 activities, including the drilling of exploratory wells
11 shall be decided within one hundred and eighty days
12 after filing such application. Any other application shall
13 be decided within one year of application.”

14 SEC. 14. (a) The Secretary shall, in the preparation of
15 any environmental assessment or environmental impact
16 statement required by the National Environmental Policy
17 Act for any action under this Act, in order to expedite leas-
18 ing, utilize any relevant information contained in an applica-
19 ble and available land management plan developed pursuant
20 to the Federal Land Management and Policy Act or in an
21 applicable and available forest management plan pursuant to
22 the National Forest Management Act.

23 (b) The Secretary of Energy, in consultation with the
24 Secretaries of Agriculture and Interior, pursuant to the au-
25 thority of this section and consistent with the responsibilities

1 of the Secretary pursuant to the Department of Energy Or-
2 ganization Act, shall establish annual goals for the five future
3 fiscal years for geothermal leasing pursuant to the Geother-
4 mal Steam Act of 1970 consistent with the national need to
5 explore, develop, and utilize, to the maximum extent feasible,
6 national geothermal resources. The goals shall be revised an-
7 nually to cover the ensuing five years. The Secretaries of
8 Agriculture and Interior will use the full authorities and re-
9 sources available to the respective departments to achieve
10 the annual goals established pursuant to this subsection.
11 Each set of goals for a five-year period shall be published in
12 the Federal Register.

13 SEC. 15. Section 15(b) of the Act is amended by striking
14 out "Federal Power Commission" and inserting in lieu there-
15 of "Federal Energy Regulatory Commission".

16 SEC. 16. Section 15(c) of the Act is amended by adding
17 at the end thereof the following: "With respect to lands re-
18 ferred to in subsection (c)(1), the Secretary shall identify
19 within one hundred and twenty days after enactment of the
20 Geothermal Resources Act Amendments of 1979, and pub-
21 lish in the Federal Register, a list of nationally significant
22 geothermal resources located on such lands and update such
23 list periodically as necessary. The Secretary may not issue
24 geothermal leases on Federal lands in proximity to such iden-
25 tified geothermal resources except to the extent that he de-

1 terminates, based on the best geological and hydrological infor-
2 mation obtainable, that geothermal leasing activities on such
3 Federal lands will have no potential for causing adverse ef-
4 fects on such geothermal resources.".

5 SEC. 17. The Secretary shall prescribe such rules and
6 regulations, or amendments to existing rules and regulations,
7 as may be necessary to reflect the amendments made by this
8 Act within one hundred and eighty days after the date of the
9 enactment of this Act.

○

96TH CONGRESS
1ST SESSION

H. R. 6080

To amend the Geothermal Steam Act of 1970 to accelerate the priority development of geothermal energy in the United States.

IN THE HOUSE OF REPRESENTATIVES

DECEMBER 11, 1979

Mr. SANTINI (for himself, Mr. UDALL, Mr. SYMMS, Mr. BUNNELS, Mr. YOUNG of Alaska, Mr. MURPHY of Pennsylvania, Mr. MARRIOTT, Mr. RAHALL, Mr. WHITTAKER, and Mr. HUCKABY) introduced the following bill; which was referred to the Committee on Interior and Insular Affairs

A BILL

To amend the Geothermal Steam Act of 1970 to accelerate the priority development of geothermal energy in the United States.

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

3 SECTION 1. This Act may be cited as the "Geothermal
4 Resources Act Amendments of 1979".

5 SEC. 2. Whenever an amendment or repeal contained in
6 this Act is expressed in terms of amendment to, or repeal of,
7 a section or other provision of "the Act", such reference shall

1 be considered a reference to an amendment to, or repeal of, a
2 section or other provision of the Geothermal Resources Act
3 of 1970 (30 U.S.C 1001 and following; Public Law 91-581).

4 SEC. 3. (a) Section 2(c) of the Act is amended by strik-
5 ing out "steam and associated geothermal" and by inserting
6 after "brines" in the first place it appears the following:
7 "geopressured water, magma, and hot rock formations".

8 (b) Section 2(d) of the Act is amended by striking out
9 "steam" both places it appears and inserting in lieu thereof
10 "resources".

11 (c) Section 5(d) of the Act is amended by striking out
12 "steam and byproduct" and inserting in lieu thereof
13 "resources".

14 (d) Section 6(a) of the Act is amended by striking out
15 "steam is" both places it appears and inserting in lieu thereof
16 "resources are".

17 (e) Section 6(b) of the Act is amended by striking out
18 "steam is" and inserting in lieu thereof "geothermal re-
19 sources are".

20 (f) Section 6(c) of the Act is amended by striking out
21 "steam is" the first place it appears and inserting in lieu
22 thereof "resources are", and by striking out "steam is" the
23 second place it appears and inserting in lieu thereof "geo-
24 thermal resources are".

1 (g) Sections 6(d) and 6(e) of the Act are amended by
2 striking out "steam" each place it appears and inserting in
3 lieu thereof "resources".

4 (h) Section 6(f) of the Act is amended by striking out
5 "steam and associated geothermal".

6 (i) Section 8 of the Act is amended—

7 (1) by striking out "steam is" both places it ap-
8 pears and inserting in lieu thereof "resources are"; and

9 (2) by striking out "ten" both places it appears
10 and inserting in lieu thereof "twenty".

11 (j) Section 9 of the Act is amended by striking out
12 "steam" and inserting in lieu thereof "resources".

13 (k) Section 19 of the Act is amended by striking out
14 "steam" and inserting in lieu thereof "resources".

15 (l) Section 23 of the Act is amended by striking out
16 "steam and associated geothermal" both places it appears.

17 SEC. 4. (a) Section 2(e) of the Act is amended to read as
18 follows:

19 "(e) 'known geothermal resources area' means
20 lands designated by the Secretary as a known geother-
21 mal resource area prior to October 1, 1979, or lands
22 for which there is substantial physical evidence, includ-
23 ing the geology of such lands or a discovery on such
24 lands which would indicate to the Secretary that the
25 prospects for extraction of geothermal resources for the

1 primary purpose of generating electricity in commercial
2 quantities are good enough to warrant substantial ex-
3 penditures for that purpose.”

4 (b) The first paragraph of section 4 of the Act is amend-
5 ed by inserting the following after “area” in the second sen-
6 tence thereof: “or if the lands are within a known geothermal
7 resources area and have been offered once for competitive
8 bidding at a sale where no bids for such lands were
9 received”.

10 (c) If any lands in a known geothermal resources area
11 have not been the subject of a competitive bidding procedure
12 before the date of enactment of the Geothermal Resources
13 Act Amendments of 1979, the Secretary shall conduct a
14 competitive bidding procedure for all such lands within such
15 area within one year after the date of enactment of the Geo-
16 thermal Resources Act Amendments of 1979 (or shall report
17 to Congress as to why and as to what areas a competitive
18 bidding procedure has not been conducted). If, upon comple-
19 tion of such competitive bidding procedure, qualified bids
20 were not received, the Secretary shall immediately withdraw
21 the designation of such lands, for which bids were not re-
22 ceived, as a known geothermal resources area, and shall im-
23 mediately make available such lands, for which bids were not
24 received, for lease to the first qualified person making appli-

1 cation, and such person shall be entitled to a lease without
2 competitive bidding.

3 SEC. 5. The Act is amended by inserting the following
4 new section immediately after section 4:

5 "SEC. 4A. (a) Any qualified person first making applica-
6 tion for a geothermal lease of lands under this Act which are
7 not designated by the Secretary as a known geothermal re-
8 sources area on the date of such application shall be entitled
9 to a lease of such lands without competitive bidding notwith-
10 standing the first sentence of section 4 unless such lands are
11 so designated within one year after the date of such
12 application.

13 "(b) Notwithstanding the first sentence of section 4, any
14 qualified person first making application for a geothermal
15 lease of lands under this Act which are not designated by the
16 Secretary as a known geothermal resources area on the date
17 of such application but which are so designated within one
18 year after the date of such application shall be entitled to a
19 noncompetitive lease of such lands under this subsection at a
20 rate determined on the basis of competitive bidding. No per-
21 son otherwise entitled to a lease of such lands under such
22 competitive bidding (hereinafter in this section referred to as
23 the competitive bidding applicant) shall be entitled to a lease
24 covering such lands if the noncompetitive applicant referred
25 to in this subsection agrees to enter into a lease of such lands

1 within such reasonable period following the competitive bid-
2 ding as the Secretary deems appropriate and at a rate which
3 is equal on a per acre basis, to the rate at which such lands
4 would have been leased to the competitive bidding applicant.

5 “(c) Subsections (a) and (b) shall take effect with respect
6 to all applications filed with the Secretary on or after the
7 date of the enactment of this section. In the case of applica-
8 tions for geothermal leases under this Act of any lands which
9 were not designated by the Secretary as a known geothermal
10 resources area before such date of enactment, if such applica-
11 tions were filed with the Secretary before such date of enact-
12 ment but were not approved or rejected by the Secretary
13 before such date, the qualified person first making application
14 for such a lease shall be entitled to a lease of such lands
15 without competitive bidding notwithstanding the first sen-
16 tence of section 4 unless such lands are so designated within
17 one year after the date of the enactment of this Act. If such
18 lands are so designated within such one-year period, such
19 applicant shall be entitled to a noncompetitive lease of such
20 lands under this subsection at a rate determined on the basis
21 of competitive bidding. No competitive bidding applicant shall
22 be entitled to a lease covering such lands if the noncompeti-
23 tive applicant referred to in this subsection agrees to enter
24 into a lease of such lands within such reasonable period fol-
25 lowing the competitive bidding as the Secretary deems ap-

1 appropriate and at a rate which is proportionate, on a per acre
2 basis, to the rate at which such lands would have been leased
3 to the competitive bidding applicant.”.

4 SEC. 6. The Act is amended by inserting after section
5 10 the following new section:

6 “SEC. 10A. (a) Notwithstanding any provision of the
7 Department of Energy Organization Act (42 U.S.C. 7101 et
8 seq.), the Secretary, immediately upon the enactment of the
9 Geothermal Resources Act Amendments of 1979, shall pro-
10 mulgate regulations that will ensure prompt reoffering of all
11 relinquished, abandoned, and expired geothermal leaseholds.

12 “(b) Upon a determination by the Secretary that a geo-
13 thermal leasehold or any part thereof is abandoned, relin-
14 quished, or expired, such lands as are described in the lease,
15 or the part thereof subject to such a determination, shall be-
16 come lands subject to geothermal leasing as described in sec-
17 tion 3.

18 “(c) The provisions of this section are in addition to and
19 not in lieu of the provisions of sections 10 and 24.”

20 SEC. 7. (a) Section 3 of the Act is amended—

21 (1) by striking out “steam and associated geother-
22 mal”; and

23 (2) by striking out “and (3)” and inserting in lieu
24 thereof the following: “(3) in any lands withdrawn or
25 acquired in aid of the functions of any department or

1 agency of the Federal Government, including the De-
2 partment of Defense, and (4)".

3 (b) Section 4(e) of the Act is amended by striking out
4 "steam" and inserting in lieu thereof "resources".

5 SEC. 8. Section 18 of the Act is amended by adding at
6 the end thereof the following new paragraph:

7 "Notwithstanding any provision of this Act, all diligent
8 development requirements, including but not limited to drill-
9 ing, shall cease upon a demonstration by the lessee compris-
10 ing a unit that the geothermal resources of the unit are pro-
11 duced and utilized in commercial quantities as defined in sec-
12 tion 6(d)."

13 SEC. 9. Section 6(d) of the Act is amended by inserting
14 after "delivery to or utilization by" the following: ", or in the
15 case of utilization facilities to be owned by the lessee, proof
16 of commitment to construct".

17 SEC. 10. (a) Section 7 of the Act is amended by striking
18 out "twenty thousand four hundred and eighty" and inserting
19 in lieu thereof "fifty-one thousand two hundred".

20 (b) Such section 7 is further amended by striking out the
21 second paragraph and by adding at the end thereof the fol-
22 lowing: "Any lease which contains a well shown to be capa-
23 ble of being commercially productive as determined by the
24 United States Geological Survey shall be exempted from the
25 acreage limitation contained in the preceding sentence."

1 SEC. 11. Section 15(b) of the Act is amended by adding
2 at the end thereof the following: "The Secretary shall consult
3 with the head of any other Federal agency or department for
4 whose purposes lands have been withdrawn or acquired to
5 determine appropriate terms or conditions prior to issuing
6 leases for such lands. The head of the Federal agency or
7 department which administers any land which is subject to a
8 geothermal lease or which is available for geothermal leas-
9 ing, shall, in making land use decisions regarding such land
10 or adjacent lands, take account of their potential for geother-
11 mal resources development."

 SEC. 12. Section 23 of the Act is amended by adding
13 after subsection (b) the following:

14 "(c) Where the Secretary finds it in the public interest,
15 the Secretary is authorized to issue permits for the use of
16 geothermal resources in lands administered by him for any
17 noncommercial application without requiring a lease or com-
18 pensation therefor. No such free use permit may be issued for
19 the purpose of generating electricity in any amount. No such
20 free use permit may be issued on lands administered by the
21 Secretary of Agriculture without his concurrence.

22 "(d) The head of each Federal agency may develop for
23 the use or benefit of such agency any geothermal energy re-
24 source within lands under this jurisdiction. The head of such
25 agency shall determine in writing with the concurrence of the

1 Department of the Interior and the Department of Energy
2 that such utilization is in the public interest, and will not
3 deter commercial development which might otherwise be
4 conducted for such resource if it were offered for leasing
5 under this Act.”.

6 SEC. 13. The Act is further amended by adding the fol-
7 lowing new section at the end thereof:

8 “SEC. 28. The Secretary shall establish the following
9 leasing and operating goals which shall be adopted promptly
10 following enactment of the Geothermal Resources Act
11 Amendments of 1979:

12 “(1) Lease application information shall indicate
13 clearly and concisely all requirements for information
14 and action by the applicant necessary for timely proc-
15 essing of the application, the responsible officials with
16 their respective responsibilities and contact information,
17 the specific steps in the process, the time limits for
18 such steps, and any options or appeals available to the
19 applicant, among any other relevant information. To
20 the maximum extent feasible, all requirements for in-
21 formation and action by the applicant, such as the
22 geothermal resources exploration bond form and such
23 bonding, shall be uniform among the several
24 departments.

1 “(2) Any lease application shall be reviewed and
2 an initial report prepared within sixty days of filing, in-
3 dicating the results of the initial review, what disposi-
4 tion is proposed, and the projected time to complete
5 action on the application.

6 “(3) All action on a lease application shall be
7 completed within one year of the filing of the
8 application.

9 “(4) An operating permit to conduct exploration
10 activities, including the drilling of exploratory wells
11 shall be decided within one hundred and eighty days
12 after filing such application. Any other application shall
13 be decided within one year of application.”.

14 SEC. 14. (a) The Secretary shall, in the preparation of
15 any environmental assessment or environmental impact
16 statement required by the National Environmental Policy
17 Act for any action under this Act, in order to expedite leas-
18 ing, utilize any relevant information contained in an applica-
19 ble and available land management plan developed pursuant
20 to the Federal Land Management and Policy Act or in an
21 applicable and available forest management plan pursuant to
22 the National Forest Management Act.

23 (b) The Secretary of Energy, in consultation with the
24 Secretaries of Agriculture and Interior, pursuant to the au-
25 thority of this section and consistent with the responsibilities

1 of the Secretary pursuant to the Department of Energy Or-
2 ganization Act, shall establish annual goals for the five future
3 fiscal years for geothermal leasing pursuant to the Geother-
4 mal Steam Act of 1970 consistent with the national need to
5 explore, develop, and utilize, to the maximum extent feasible,
6 national geothermal resources. The goals shall be revised an-
7 nually to cover the ensuing five years. The Secretaries of
8 Agriculture and Interior will use the full authorities and re-
9 sources available to the respective departments to achieve
10 the annual goals established pursuant to this subsection.
11 Each set of goals for a five-year period shall be published in
12 the Federal Register.

13 SEC. 15. Section 15(b) of the Act is amended by striking
14 out "Federal Power Commission" and inserting in lieu there-
15 of "Federal Energy Regulatory Commission".

16 SEC. 16. Section 15(c) of the Act is amended by adding
17 at the end thereof the following: "With respect to lands re-
18 ferred to in subsection (c)(1), the Secretary shall identify
19 within one hundred and twenty days after enactment of the
20 Geothermal Resources Act Amendments of 1979, and pub-
21 lish in the Federal Register, a list of nationally significant
22 geothermal resources located on such lands and update such
23 list periodically as necessary. The Secretary may not issue
24 geothermal leases on Federal lands in proximity to such iden-
25 tified geothermal resources except to the extent that he de-

1 terminates, based on the best geological and hydrological infor-
2 mation obtainable, that geothermal leasing activities on such
3 Federal lands will have no potential for causing adverse ef-
4 fects on such geothermal resources.”.

5 SEC. 17. The Secretary shall prescribe such rules and
6 regulations, or amendments to existing rules and regulations,
7 as may be necessary to reflect the amendments made by this
8 Act within one hundred and eighty days after the date of the
9 enactment of this Act.

○

Calendar No.

96TH CONGRESS
1ST SESSION

H. R. 3919

[Report No. 96-394]

IN THE SENATE OF THE UNITED STATES

JULY 10 (legislative day, JUNE 21), 1979

Read twice and referred to the Committee on Finance

NOVEMBER 1 (legislative day, OCTOBER 15), 1979

Reported by Mr. LONG, with an amendment to the text and an amendment to the title

[Strike out all after the enacting clause and insert the part printed in italic]

AN ACT

To impose a windfall profit tax on domestic crude oil.

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

3 **SECTION 1. SHORT TITLE; AMENDMENT OF 1954 CODE.**

4 (a) **SHORT TITLE.**—This Act may be cited as the
5 “Crude Oil Windfall Profit Tax Act of 1979”.

6 (b) **AMENDMENT OF 1954 CODE.**—Except as otherwise
7 expressly provided, whenever in this Act an amendment or
8 repeal is expressed in terms of an amendment to, or repeal of,

1 (4) inflation,

2 (5) employment,

3 (6) economic growth,

4 (7) Federal revenues, and

5 (8) national security.

6 (b) *REPORT TO INCLUDE RECOMMENDATIONS.*—The
7 report required under subsection (a) shall include such legis-
8 lative recommendations as the President determines to be
9 advisable.

10 **TITLE II—ENERGY CONSERVATION**
11 **AND PRODUCTION INCENTIVES**

12 **PART 1—RESIDENTIAL ENERGY CREDIT**

13 **SEC. 201. GENERAL PROVISIONS RELATING TO CREDIT.**

14 (a) *REPEAL OF PRINCIPAL RESIDENCE REQUIRE-*
15 *MENT.*—

16 (1) *IN GENERAL.*—Paragraphs (1)(B) and
17 (2)(A)(ii) of section 44C(c) (relating to definitions and
18 special rules) are each amended by striking out “prin-
19 cipal residence” and inserting “residence during any
20 portion of the taxable year”.

21 (2) *CONFORMING AMENDMENTS.*—

22 (A) Section 44C(c)(8) (relating to definition
23 of principal residence) is amended to read as
24 follows:

1 “(8) *DWELLING UNIT.*—*The term ‘dwelling unit’*
2 *includes any appurtenant structure.*”.

3 (B) *Section 44C(d)(1) (relating to dollar*
4 *amounts in case of joint occupancy) is amended*
5 *by striking out “principal”.*

6 (b) *ALLOWANCE OF CREDIT TO LANDLORDS; JOINT*
7 *OWNERSHIP.*—*Section 44C(d) (relating to special rules) is*
8 *amended by redesignating paragraph (4) as paragraph (6)*
9 *and by inserting after paragraph (3) the following new para-*
10 *graphs:*

11 “(4) *EXPENDITURES BY LESSORS.*—

12 “(A) *LESSORS.*—*Notwithstanding any pro-*
13 *vision of this section requiring the taxpayer to use*
14 *a dwelling unit as a residence, if an individual*
15 *who is the lessor of a dwelling unit makes ex-*
16 *penditures which, but for such provision, consti-*
17 *tute energy conservation or renewable energy*
18 *source expenditures, then, for purposes of this sec-*
19 *tion, the lessor shall be treated as having made*
20 *energy conservation or renewable energy source*
21 *expenditures in connection with such dwelling*
22 *unit.*

23 “(B) *AMOUNT OF CREDIT.*—*The amount of*
24 *the credit allowed under subsection (a) in the case*
25 *of a lessor shall be the amount otherwise deter-*

mined under this section, except that in any case in which the depreciation allowance under section 167 (or amortization in lieu of depreciation) is allowed as a deduction with respect to the dwelling unit, subsection (b) shall be applied—

“(i) by substituting ‘10 percent’ for ‘15 percent’ in paragraph (1), and

“(ii) by substituting ‘40 percent’ for ‘50 percent’ in paragraph (2).

“(C) *WHEN EXPENDITURE MADE.*—An expenditure with respect to an item shall be treated as made when the original installation of such item is completed.

“(5) *JOINT OWNERSHIP OF ENERGY ITEMS.*—If 2 or more individuals make energy conservation or renewable energy source expenditures during any calendar year for any particular item installed in connection with 2 or more dwelling units used as residences by such individuals, the amount of the credit allowable under subsection (a) shall be computed separately with respect to the amount of the expenditures made by each such individual.”

(c) *EFFECTIVE DATE.*—The amendments made by this section shall apply to expenditures made after September 30, 1979.

1 **SEC. 202. ENERGY CONSERVATION EXPENDITURES.**

2 (a) *IN GENERAL.*—Subparagraph (A) of section
3 44C(c)(4) (relating to definition of other energy-conserving
4 components) is amended—

5 (1) by striking out “or” at the end of clause (vii),
6 and

7 (2) by striking out clause (viii) and inserting in
8 lieu thereof the following new clauses:

9 “(viii) a heat pump (including a water
10 source heat pump) which replaces an electric
11 resistance space or water heating system or
12 is used as a back-up system for a solar hot
13 water heater,

14 “(ix) an airtight woodburning stove,

15 “(x) a replacement oil or gas furnace or
16 boiler which meets the requirements of para-
17 graph (9), or

18 “(xi) a replacement coal furnace or
19 boiler which is part of a central heating
20 system.”.

21 (b) *TECHNICAL AND CONFORMING AMENDMENTS.*—

22 (1) Section 44C(c) (relating to definitions and
23 special rules) is amended by adding at the end thereof
24 the following new paragraphs:

1 “(9) REPLACEMENT FURNACES AND BOIL-
2 ERS.—An oil or gas replacement furnace or boiler
3 meets the requirements of this paragraph if—

4 “(A) in the case of oil, it has an average fuel
5 utilization efficiency rating of 80 percent or more,
6 or

7 “(B) in the case of gas, it has an average
8 fuel utilization efficiency rating of 75 percent or
9 more.

10 “(10) AMOUNT OF CREDIT FOR REPLACEMENT
11 COAL FURNACE.—In determining the amount of the
12 credit in the case of an energy conservation expendi-
13 ture for any item described in paragraph (4)(A)(xi),
14 subsection (b)(1) shall be applied by substituting ‘25
15 percent’ for ‘15 percent.’.”

16 (2) Clause (i) of section 44C(c)(6)(A) (relating to
17 regulations) is amended by striking out so much of
18 such clause as follows “used in” and inserting in lieu
19 thereof “prescribing performance and quality standards
20 under paragraphs (3), (4), and (5), and”.

21 (c) EFFECTIVE DATE.—The amendments made by this
22 section shall apply to expenditures made after September 30,
23 1979.

of section
y-conserving
clause (vii),
inserting in
ding a water
es an electric
ng system or
r a solar hot
ing stove,
gas furnace or
nents of para-
il furnace or
entral heating
ENDMENTS.—
efinitions and
he end thereof

1 **SEC. 203. RENEWABLE ENERGY SOURCE EXPENDITURES.**

2 (a) **AMOUNT OF CREDIT.**—Paragraph (2) of section
3 44C(b) (relating to qualified renewable energy source ex-
4 penditures) is amended to read as follows:

5 “(2) **RENEWABLE ENERGY SOURCE.**—In the
6 case of any dwelling unit, the qualified renewable
7 energy source expenditures are 50 percent of so much
8 of the renewable energy source expenditures made by
9 the taxpayer during the taxable year with respect to
10 such unit as does not exceed \$10,000.”

11 (b) **ELECTRICAL ENERGY.**—Subparagraph (A) of sec-
12 tion 44C(c)(5) (relating to definition of renewable energy
13 source property) is amended to read as follows:

14 “(A) which, when installed in connection
15 with a dwelling, transmits or uses—

16 “(i) solar energy or energy derived from
17 geothermal deposits (as defined in section
18 613(e)(3)) for the purpose of heating or cool-
19 ing such dwelling or providing hot water or
20 electricity (through photovoltaics or other-
21 wise) for use within such dwelling, or

22 “(ii) wind energy for nonbusiness resi-
23 dential purposes (including the providing of
24 electricity),”

25 (c) **COSTS OF DRILLING GEOTHERMAL WELL.**—

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1 expenditure necessary for similar property which
2 would not be renewable energy source property
3 shall be treated as a renewable energy source
4 expenditure.”

5 (e) **TERMINATION DATE.**—

6 (1) **IN GENERAL.**—Section 44C(f) (relating to
7 termination date) is amended to read as follows:

8 “(f) **TERMINATION DATES.**—

9 “(1) **IN GENERAL.**—Except as provided in para-
10 graphs (2) and (3), this section shall apply to expendi-
11 tures made before January 1, 1986.

12 “(2) **RENEWABLE ENERGY SOURCE EXPENDI-**
13 **TURES.**—This section shall apply to renewable energy
14 source expenditures made before January 1, 2000.

15 “(3) **WOOD STOVES AND COAL FURNACES.**—
16 This section shall apply to expenditures for items de-
17 scribed in subsection (c)(4) (ix) and (xi) made before
18 January 1, 1983.”

19 (2) **CARRYOVERS.**—Section 44C(b)(6)(B) (relat-
20 ing to termination of carryovers) is amended to read as
21 follows:

22 “(B) **NO CARRYOVERS TO CERTAIN TAX-**
23 **ABLE YEARS.**—No amount may be carried under
24 subparagraph (A) to any taxable year beginning
25 after December 31, 1987, unless such amount is

property which
 source property
 energy source

1 attributable to a renewable energy source expendi-
 2 ture, in which case such amount may be carried
 3 to a taxable year beginning before January 1,
 4 2002.”

(f) (relating to
 follows:

5 (f) *EFFECTIVE DATE.*—The amendments made by this
 6 section shall apply to expenditures made after September 30,
 7 1979.

provided in para-
 apply to expendi-

8 **PART 2—BUSINESS ENERGY INVESTMENT CREDITS**

ORCE EXPENDI-
 renewable energy
 ry 1, 2000.

9 **SEC. 231. CHANGES IN AMOUNT AND PERIOD OF APPLICATION**
 10 **OF ENERGY PERCENTAGE.**

L FURNACES.—
 res for items de-
 (xi) made before

11 (a) *IN GENERAL.*—Subparagraph (C) of section
 12 46(a)(2) (relating to energy percentage) is amended to read
 13 as follows:

C(b)(6)(B) (relat-
 mended to read as

14 “(C) *ENERGY PERCENTAGE.*—

NO CERTAIN TAX-
 y be carried under
 ble year beginning
 ss such amount is

15 “(i) *GENERAL RULE.*—Except as oth-
 16 erwise provided in this subparagraph, the
 17 energy percentage is 10 percent for the
 18 period beginning on October 1, 1978, and
 19 ending on December 31, 1982, and zero for
 20 any other period. For the purpose of apply-
 21 ing this clause with respect to qualified in-
 22 vestment (as determined under subsections
 23 (c) and (d)) in property described in section
 24 48(l)(2)(A)(viii) (relating to cogeneration
 25 equipment) or property described in section

1 48(l)(5)(L) (relating to industrial heat
2 pumps), 'January 1, 1980,' shall be substi-
3 tuted for 'October 1, 1978,' in the preceding
4 sentence.

5 "(ii) SOLAR, WIND, OR GEOTHERMAL
6 ENERGY PROPERTY.—For qualified invest-
7 ment (as determined under subsections (c)
8 and (d)) in property described in section
9 48(l)(4) (relating to solar or wind energy
10 property) and property described in section
11 48(l)(3)(A)(viii) (relating to geothermal prop-
12 erty), the energy percentage is 10 percent for
13 the period beginning on October 1, 1978,
14 and ending on December 31, 1979, and 20
15 percent for the period beginning on January
16 1, 1980, and ending on December 31, 1990.

17 "(iii) OCEAN THERMAL PROPERTY.—
18 For qualified investment (as determined
19 under subsections (c) and (d)) in property
20 described in section 48(l)(3)(A)(ix) (relating
21 to ocean thermal property), the energy per-
22 centage is 20 percent for the period begin-
23 ning on January 1, 1980, and ending on
24 December 31, 1990.

Industrial heat
shall be substi-
the preceding

GEOTHERMAL

qualified invest-
subsections (c)
described in section
or wind energy

described in section
geothermal prop-
is 10 percent for
October 1, 1978,

October 1, 1979, and 20
beginning on January
December 31, 1990.

BIOMASS PROPERTY.—

(as determined
in (d)) in property
(3)(A)(ix) (relating
), the energy per-
the period begin-
30, and ending on

1 “(v) *SMALL HYDROELECTRIC GENER-*
2 *ATING PROPERTY.—For qualified invest-*
3 *ment (as determined under subsections (c)*
4 *and (d)) in property described in section*
5 *48(l)(2)(A)(vii) (relating to small hydroelec-*
6 *tric generating property), the energy percent-*
7 *age is 10 percent for the period beginning on*
8 *January 1, 1980, and ending on December*
9 *31, 1990.*

10 “(v) *BIOMASS PROPERTY.—For quali-*
11 *fied investment (as determined under subsec-*
12 *tions (c) and (d)) in—*

13 “(I) *biomass property described in*
14 *clauses (i) and (ii) of section*
15 *48(l)(15)(A), the energy percentage is*
16 *10 percent for the period beginning on*
17 *October 1, 1978, and ending on Decem-*
18 *ber 31, 1990, and*

19 “(II) *biomass property described*
20 *in clauses (iii) and (iv) of section*
21 *48(l)(15)(A), the energy percentage is*
22 *10 percent for the period beginning on*
23 *October 1, 1978, and ending on Decem-*
24 *ber 31, 1979, and 20 percent for the*

1 *period beginning on January 1, 1980,*
2 *and ending on December 31, 1990.*

3 *“(vi) APPLICATION OF CLAUSE (i) TO*
4 *CERTAIN LONG-TERM PROJECTS COM-*
5 *PLETED AFTER 1982.—For the purpose of*
6 *applying the energy percentage determined*
7 *under clause (i) to qualified investment (as*
8 *determined under subsections (c) and (d)) in*
9 *property which is a part of a project with a*
10 *normal construction period of 2 years or*
11 *more (within the meaning of section*
12 *46(d)(2)(A)(i)), ‘December 31, 1990’ shall*
13 *be substituted for ‘December 31, 1982’ with*
14 *respect to such qualified investment if—*

15 *“(I) before January 1, 1983, the*
16 *taxpayer has completed all engineering*
17 *studies in connection with the project,*
18 *and has applied for all environmental*
19 *and construction permits required under*
20 *Federal, State, or local law in connec-*
21 *tion with the construction of the project,*
22 *and*

23 *“(II) before January 1, 1986, the*
24 *taxpayer has entered into binding con-*
25 *tracts for the acquisition, construction,*

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 SUBJECTS COM-
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 project with a
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 31, 1990' shall
 31, 1982' with
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 ary 1, 1983, the
 d all engineering
 with the project,
 ll environmental
 its required under
 al law in connec-
 tion of the project,
 uary 1, 1986, the
 into binding con-
 ition, construction,

1 reconstruction, or erection of equipment
 2 specially designed for the project and
 3 the aggregate cost to the taxpayer of
 4 that equipment is at least 50 percent of
 5 the reasonably estimated cost for all
 6 such equipment which is to be placed in
 7 service as part of the project upon its
 8 completion."

9 (b) CONFORMING AMENDMENTS.—

10 (1) Paragraph (1) of section 48(l) (relating to
 11 treatment of energy property as section 38 property) is
 12 amended by striking out "December 31, 1982" and in-
 13 serting in lieu thereof "December 31, 1990".

14 (2) Paragraph (11) of section 48(l) (relating to
 15 special rule for property financed by industrial devel-
 16 opment bonds) is amended by striking out "5 percent"
 17 and inserting in lieu thereof "one-half of the energy
 18 percentage determined under section 46(a)(2)(C)".

19 SEC. 232. CHANGES IN ENERGY PROPERTY ITEM DESCRIPTIONS.

20 (a) IN GENERAL.—Subsection (l) of section 48 (relat-
 21 ing to energy property) is amended as follows:

22 (1) Subparagraph (A) of paragraph (2) (relating
 23 to definition of energy property) is amended—

24 (A) by striking out "or" at the end of clause
 25 (v), and

1 (B) by adding at the end thereof the follow-
2 ing new clauses:

3 “(vi) small hydroelectric generating
4 property,

5 “(viii) cogeneration equipment installed
6 in an existing facility, but only to the extent
7 that the cogeneration energy capacity of such
8 facility is expanded, or

9 “(ix) biomass property.”

10 (2) Subparagraph (A) of paragraph (3) (relating
11 to alternative energy property) is amended—

12 (A) by striking out “and” at the end of
13 clause (vii),

14 (B) by striking out the period at the end of
15 clause (viii) and inserting in lieu thereof a
16 comma and the word “and”, and

17 (C) by adding at the end thereof the follow-
18 ing new clause:

19 “(ix) equipment which converts ocean
20 thermal energy to usable energy.”

21 (3) Subparagraph (C) of paragraph (3) (relating
22 to alternate substance) is amended—

23 (A) by striking out “and” at the end of
24 clause (i),

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d” at the end of

1 (B) by inserting “(other than petroleum coke
2 and pitch)” after “oil” in clause (ii),

3 (C) by striking out the period at the end of
4 such clause and inserting in lieu thereof a comma
5 and the word “and”, and

6 (D) by adding at the end thereof the follow-
7 ing new clause:

8 “(iii) biomass”.

9 (4) Paragraph (4) (relating to solar or wind
10 energy property) is amended—

11 (A) by striking out “or” at the end of sub-
12 paragraph (A),

13 (B) by striking out the period at the end of
14 subparagraph (B) and inserting in lieu thereof a
15 comma and “or”, and

16 (C) by adding at the end thereof the follow-
17 ing new subparagraph:

18 “(C) to provide solar process heat.”.

19 (5) Paragraph (5) (relating to specially defined
20 energy property) is amended—

21 (A) by striking out “or” at the end of sub-
22 paragraph (K), and

23 (B) by striking out subparagraph (L) and
24 inserting in lieu thereof the following new
25 subparagraphs:

1 “(L) an industrial heat pump installed in
2 connection with an existing industrial process in
3 an existing industrial facility, or

4 “(M) modifications to alumina electrolytic
5 cells.”

6 (6) Paragraph (10) of section 48(l) (relating to
7 definition of existing) is amended—

8 (A) by striking out “or” at the end of sub-
9 paragraph (A),

10 (B) by striking out the period at the end of
11 subparagraph (B) and inserting in lieu thereof a
12 comma and “or”, and

13 (C) by adding at the end thereof the follow-
14 ing:

15 “(C) when used in connection with a dam,
16 construction was completed before October 18,
17 1979.

18 “In applying the preceding sentence to property de-
19 scribed in paragraph (2)(A)(viii) (relating to cogenera-
20 tion equipment) or paragraph (5)(L) (relating to indus-
21 trial heat pumps), ‘January 1, 1980,’ shall be substi-
22 tuted for ‘October 1, 1978,’ each place it appears.”

23 (7) By adding at the end of such subsection the
24 following new paragraphs:

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1 “(13) *SMALL HYDROELECTRIC GENERATING*
2 *PROPERTY.—*

3 “(A) *IN GENERAL.—*The term ‘small hydro-
4 *electric generating property’* means electrical gen-
5 *erating equipment. (up to, but not including, the*
6 *electrical transmission stage), powerhouses, and*
7 *fish passageways acquired, constructed, recon-*
8 *structed, or erected in connection with a small hy-*
9 *droelectric generation project. Such term also in-*
10 *cludes an existing dam in connection with such a*
11 *project to the extent that amounts are paid or in-*
12 *curring for rehabilitation or reconstruction of the*
13 *dam.*

14 “(B) *SMALL HYDROELECTRIC POWER GEN-*
15 *ERATION PROJECT.—*For purposes of this para-
16 *graph, the term ‘small hydroelectric power genera-*
17 *tion project’* means a project located at the site of
18 *any existing dam which—*

19 “(i) *uses the water potential of such site*
20 *to generate electricity, and*

21 “(ii) *does not have more than 25,000*
22 *kilowatts of installed capacity.*

23 “(C) *SPECIAL RULE FOR NEW SITES.—*For
24 *the purpose of applying subparagraph (B) with*
25 *respect to a site at which there is no existing dam*

1 and at which the construction of a dam or the cre-
2 ation of an impoundment of water is not carried
3 out; subparagraph (B) shall be applied without
4 regard to the words 'located at the site of any ex-
5 isting dam.'

6 **"(14) COGENERATION EQUIPMENT.—**The term
7 'cogeneration equipment' means equipment installed in
8 an existing industrial or commercial facility which—

9 (A) produces steam, heat, or other forms of
10 useful energy (other than electric energy) to be
11 used for industrial (including water purification
12 or desalinization), agricultural, commercial, or
13 space-heating purposes, and

14 (B) also produces electric energy.

15 A facility which uses oil or natural gas as fuel, other
16 than an industrial or commercial facility which, as of
17 January 1, 1980, used natural gas as fuel, shall not
18 be treated as an existing industrial or commercial fa-
19 cility for purposes of this paragraph.

20 **"(15) BIOMASS PROPERTY.—**

21 (A) IN GENERAL.—The term 'biomass
22 property' means property which would be alterna-
23 tive energy property if 'biomass' were substituted
24 for 'alternate substance' each place it appears in
25 paragraph (3)(A) and which—

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23 (b)
24 section
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1. ...“(i) is equipment for converting wood,
2 wood products, or timber waste into a syn-
3 thetic solid fuel,

4. ...“(ii) uses wood, wood products, timber
5 waste, or a synthetic solid fuel derived from
6 biomass as its primary fuel,

7. ...“(iii) uses biomass (other than wood,
8 wood products, or timber waste) as its pri-
9 mary fuel,

10. ...“(iv) is equipment for converting bio-
11 mass (other than wood, wood products, or
12 timber waste) into a synthetic solid fuel, or

13. ...“(v) is equipment for converting bio-
14 mass into a synthetic liquid or gaseous fuel.

15. (B) **BIOMASS.**—The term ‘biomass’
16 means—

17. (i) biomass as defined in section
18 44D(d)(2), and

19. (ii) wood, wood products, and timber
20 waste,

21 but does not include coal, oil, natural gas, or any
22 product of oil or natural gas.”

23. (b) **EFFECTIVE DATE.**—For the purpose of applying
24 section 48(m) of the Internal Revenue Code of 1954 (relating
25 to application of certain transitional rules), the amendments

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is not carried
plied without
site of any ex-
NT.—The term
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commercial, or
energy.
gas as fuel, other
ility which, as of
as fuel, shall not
or commercial fa-
he term ‘biomass’
h would be alterna-
ss’ were substituted
place it appears in

1 made by paragraphs (3) and (4) of subsection (a) shall apply
2 after December 31, 1979.

3 **SEC. 233. OTHER CHANGES WITH RESPECT TO THE INVESTMENT**
4 **CREDIT FOR INVESTMENT IN ENERGY PROPERTY.**

5 **(a) REGULAR INVESTMENT CREDIT PERCENTAGE TO**
6 **BE ALLOWED WITH RESPECT TO ENERGY PROPERTY.—**

7 *Subparagraph (D) of section 46(a)(2) (relating to special*
8 *rule for certain energy property) is amended to read as*
9 *follows:*

10 **“(D) SPECIAL RULES FOR ENERGY PROP-**
11 **ERTY.—For purposes of this paragraph—**

12 *“(i) the regular percentage shall not*
13 *apply during the period beginning on Octo-*
14 *ber 1, 1978, and ending on December 31,*
15 *1979 (determined by applying section 48(m))*
16 *to any energy property which, but for section*
17 *48(l)(1), would not be section 38 property,*
18 *and*

19 *“(ii) for purposes of applying the regu-*
20 *lar percentage after December 31, 1979, any*
21 *energy property shall be treated as meeting*
22 *the requirements of section 48(a)(1), and sec-*
23 *tion 48(a)(3) shall not apply to such proper-*
24 *ty, during the period (determined by apply-*
25 *ing section 48(m)) for which the energy per-*

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4 PITCH.—
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1 centage for that property is greater than
2 zero.”.

3 (b) *BOILERS FUELED BY PETROLEUM COKE OR*
4 *PITCH.*—Paragraph (10) of section 48(a) (relating to boilers
5 fueled by oil or gas) is amended by inserting “other than
6 petroleum coke or petroleum pitch” immediately before
7 “unless”.

8 (c) *ENERGY PERCENTAGE ALLOWED WITH RE-*
9 *SPECT TO CERTAIN PUBLIC UTILITY PROPERTY.*—Sub-
10 paragraph (B) of section 48(l)(3) (relating to exclusion for
11 public utility property) is amended—

12 (1) by striking out “The terms” and inserting in
13 lieu thereof the following: “Except in the case of prop-
14 erty described in clause (viii) or (ix) of paragraph
15 (3)(A) (relating to geothermal property and ocean ther-
16 mal property, respectively), the terms”, and

17 (2) by striking out “, ‘solar or wind energy prop-
18 erty’,”.

19 (d) *EFFECTIVE DATE.*—The amendments made by
20 subsections (b) and (c) shall apply to—

21 (1) property to which section 46(d) of the Internal
22 Revenue Code of 1954 does not apply, the construc-
23 tion, reconstruction, or erection of which is commenced
24 by the taxpayer after December 31, 1979,

shall apply

ENERGY INVESTMENT
PROPERTY.

PERCENTAGE TO
PROPERTY.—

relating to special
shall be read as

ENERGY PROP-
erty—

percentage shall not
beginning on Octo-
ber 31,
section 48(m))
but, for section
48 property,

applying the regu-
lation 31, 1979, any
property treated as meeting
section 48(a)(1), and sec-
tion 48(b)(1) shall apply
only to such proper-
ties determined by apply-
ing the energy per-

1 (2) property to which section 46(d) of such Code
2 does not apply, acquired by the taxpayer after Decem-
3 ber 31, 1979, and

4 (3) property to which section 46(d) of such Code
5 applies which is placed in service after December 31,
6 1979, but only to the extent of the qualified investment
7 (as determined under subsections (c) and (d) of section
8 46 of such Code) with respect to qualified progress ex-
9 penditures made after December 31, 1979.

10 **SEC. 234. SMALL HYDROELECTRIC GENERATING PROPERTY.**

11 (a) **EXEMPTION FROM PUBLIC UTILITY PROPERTY**

12 **DEPRECIATION RULES.**—Paragraph (3) of section 167(l)
13 (relating to reasonable allowance in case of property of cer-
14 tain utilities) is amended by inserting immediately after sub-
15 paragraph (I) the following new subparagraph:

16 “(J) **SMALL HYDROELECTRIC GENER-**
17 **ATING PROPERTY ELECTION.**—At the elec-
18 tion of the taxpayer, made at such time and
19 in such manner as the Secretary may pre-
20 scribe, this subsection shall not apply with
21 respect to small hydroelectric generating
22 property (as defined in section 48(l)(13)).”

23 (b) **TREATMENT UNDER ASSET DEPRECIATION**

24 **RANGE.**—Notwithstanding any other provision of law to the
25 contrary, for the purpose of applying the class life asset de-

1 depreciation r
2 Revenue C
3 are small

4 section 48(
5 the asset d
6 limit of 1
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