

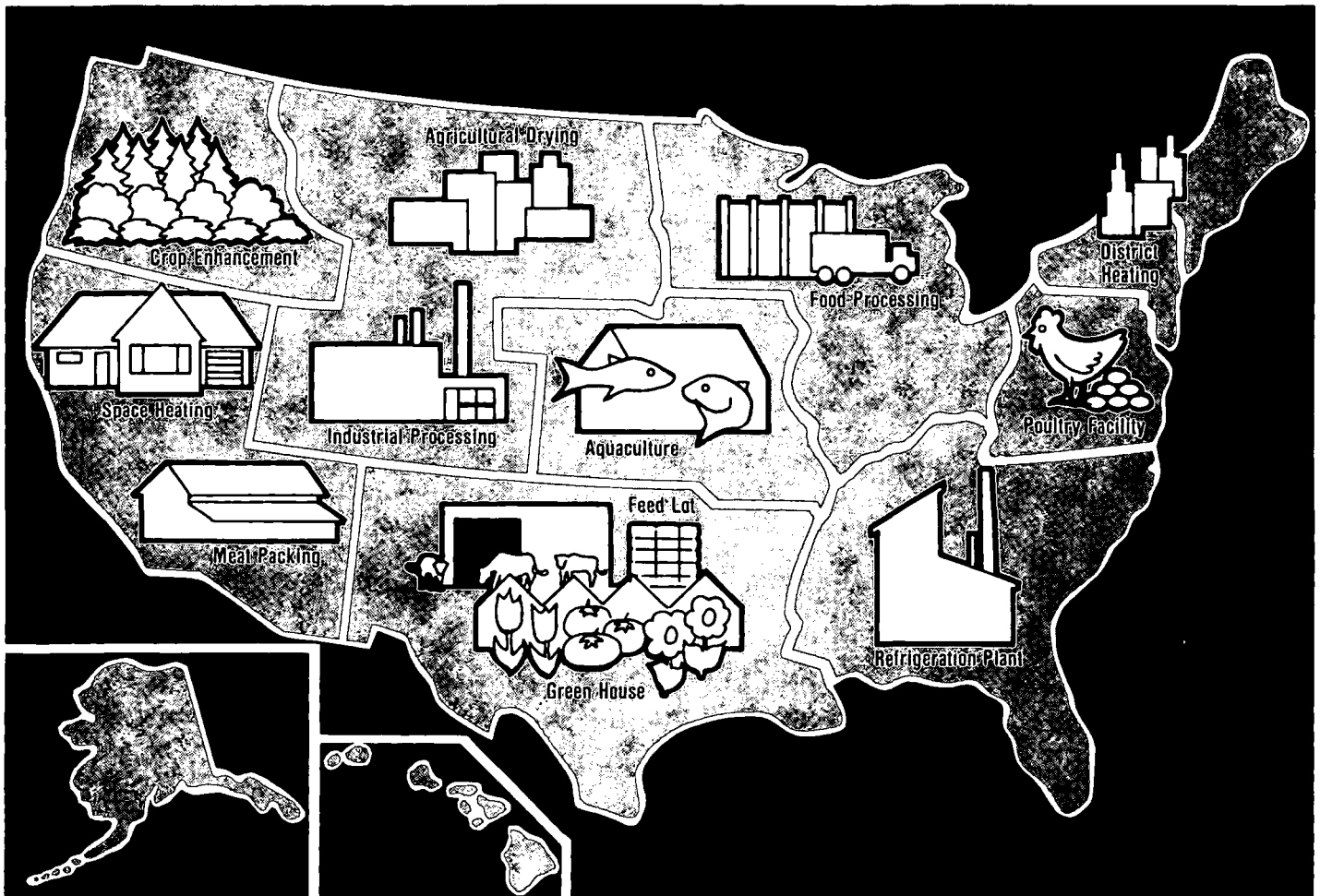
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# Energy Security Act Title VI - Geothermal Energy Loans for Geothermal Reservoir Confirmation



Idaho National Engineering Laboratory

9-27-80

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NOTICE OF PROPOSED RULEMAKING

AND PUBLIC HEARING

PL 96-294

ENERGY SECURITY ACT

GEOHERMAL RESERVOIR CONFIRMATION LOAN PROGRAM

U. S. DEPARTMENT OF ENERGY

SEPTEMBER 29, 1980

IDAHO NATIONAL ENGINEERING LABORATORY

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September 29, 1980

DEPARTMENT OF ENERGY

Geothermal Reservoir Confirmation Loans  
Proposed Rulemaking: Public Hearing

Agency: Department of Energy

Action: Notice of proposed rulemaking and public hearing.

Summary: The Department of Energy (DOE) hereby gives notice of its proposed implementation of loans for geothermal reservoir confirmation as authorized by Title VI of the Energy Security Act of 1980. Written comments are requested on these proposed regulations, and public hearings will be held with respect to this proposal in accordance with Executive Order 12044 "Improving Government Regulations", 43 FR 12661 (1978), and DOE's implementing Order 2030.1, 44 FR 1040, Jan. 3, 1979.

The proposed regulation establishes the qualifications, criteria and procedures for obtaining a loan for the purpose of defraying up to 90 percent of the cost of a reservoir confirmation project.

DATES: Written comments by \_\_\_\_\_; requests to speak by \_\_\_\_\_.

HEARING DATES:

October 27, 29, 31 and November 5, 1980.

Addresses:

Address all comments to:

Department of Energy,

Washington, D.C.

Request To Speak:

hearing:

Hearing:

Washington Hearing:

November 5, 1980

Hearing Locations:

Seattle, Washington 10-27-80

San Francisco, California 10-29-80

Denver, Colorado 10-31-80

Washington, D.C. 11-5-80

FOR FURTHER INFORMATION CONTACT:

Supplemental Information

- I. Background
- II. Comment Procedures
- III. Text Of The Authorizing Legislation

I. Background

Title VI - Geothermal Energy, of the Geothermal Energy Act of 1980, authorizes the Secretary of Energy (hereafter referred to as the "Secretary") to make a loan to any person to assist such person in undertaking and carrying out a project which (1) is designed to explore for or determine the economic viability of a geothermal reservoir and (2) consists of surface exploration, drilling and testing of one or more exploratory wells.

The Secretary may at any time cancel the unpaid balance and any accrued interest on any loan made under this section if he determines, on the basis of evidence presented by the loan recipient or otherwise, that the geothermal energy reservoir with respect to which the loan was made has characteristics which make that reservoir economically or technically unacceptable for commercial development.

As used in this subtitle, the term "person" includes municipalities, electric cooperatives, industrial development agencies, nonprofit organizations, and Indian tribes, as well as the entities included within such term under 1 U.S.C. § 1.

The amount of any loan shall not exceed 50 percent of the cost of a reservoir confirmation project, except that if the loan is made to a person proposing to make application of the resources of the reservoir involved primarily for space heating or cooling or process heat, the loan may be in any amount up to 90 per centum of such cost. In any event no loan shall be made in an amount in excess of \$3,000,000.

Each loan shall bear interest at a discount or interest rate equal to the rate in effect (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)) (7-5/8% in Fiscal Year 1981), and each such loan shall be for a term which the Secretary deems appropriate, except that no loan term shall exceed twenty years beyond the date on which production of energy or geothermal energy resources begins from the reservoir involved. 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.

No new loans shall be made under this subtitle after September 30, 1986. Amounts repaid on or before September 30, 1986, on loans theretofore made under section 611 shall be deposited in the Geothermal Resource Development Fund for purposes of this subtitle. Amounts repaid after that date on loans theretofore made under section 611, and amounts deposited in the Fund for purposes of this subtitle which remain in the Fund after that date and are not required to secure outstanding obligations under this subtitle, shall be deposited into the United States Treasury as miscellaneous receipts.

This proposed regulation implements the authority in Title VI as regards loans for geothermal reservoir confirmation.

Title VI stipulates that any loan shall be repayable out of revenue from production of the geothermal energy reservoir with respect to which the loan was made, at a rate, in any year, not to exceed 20 per cent of the gross revenue from the reservoir in that year; except that if any disposition of the geothermal rights to the reservoir is made to one or more other persons by the borrower, the full amount of the loan balance outstanding, or so much of the loan balance outstanding as is equal to the full amount of the compensation realized by the borrower upon such disposition, whichever is less, shall be repaid immediately.

In any case where the reservoir is confirmed, the Secretary may impute a reasonable revenue for purposes of determining repayment if:

- (1) reasonable efforts are not made to put such reservoir in commercial operation,
- (2) the borrower (or any such other person) utilizes the resources of the reservoir without a sale of the energy or geothermal energy resources therefrom, or
- (3) a sale of energy or geothermal energy resources from the reservoir is made for an unreasonably low price;



except that no such imputation of revenue shall be made during the three-year period immediately following such reservoir confirmation. In the event of failure to begin production of revenue (or, where no sale of energy or geothermal energy resources is made, to begin production of energy for commercial use) within five years after the date of such reservoir confirmation, the Secretary may take action to recover the value, not to exceed the amount of the unpaid balance of the loan plus any accrued interest thereon, of any assets of the project in question, including resource rights.

This proposed regulation establishes the procedure to apply for a loan, including matters of eligibility and the content of the application. Further, this regulation establishes criteria for approval of loan applications, specifies the requirements of the completed project and indicates general loan terms, including monitoring and repayment and, in certain cases, cancellation of the loan. Miscellaneous matters, such as confidentiality of information supplied in connection with a loan, are also covered. This proposed regulation sets out priority to be accorded a person proposing to make application for a loan and factors which may additionally affect the priority to be given an applicant.

Requests for loans will be considered after publication of final rulemaking. Requests for loans may be submitted prior to final rulemaking. However, when this regulation becomes final, the request must be updated to meet additional requirements, if any, of the final regulation. Any requests for loans should be sent to DOE Idaho, 550 Second Street, Room 180, Idaho Falls, Idaho 83401, Attention: Al Hymer (208) 526-1456, or to the DOE Regional Office located at the following address: \_\_\_\_\_.

## II. Comment Procedures

### A. WRITTEN COMMENTS

You are invited to participate in this rulemaking by submitting data, views or arguments with respect to the proposals set forth in this notice.

Written comments should be submitted by \_\_\_\_\_, to the address indicated in the "Addresses" section of this preamble and should be identified on the outside envelope and on the document with the designation "Geothermal Reservoir Confirmation Loans for Geothermal Development Projects." Ten copies should be submitted.

Any information submitted which you consider to be confidential must be so identified and submitted in writing, one copy only. We reserve the right to determine the confidential status of the information and to treat it according to our determination.

### B. PUBLIC HEARINGS

1. Procedure for Request to Make Oral Presentation. The time and place for the hearing are indicated in the "Dates" and "Addresses" sections of this preamble.

If you have an interest in the proposed rulemaking issued today, or represent a group or class of persons that has an interest, you may make a written request for an opportunity to make oral presentation by \_\_\_\_\_. You should be prepared to describe the interest concerned and, if appropriate, to state why you are a proper representative of a group or class of persons that has such an interest, and to give a concise summary of the proposed oral presentation. You should also provide a phone number where you may be contacted through the day before the hearing.

If you are selected to be heard, you will be so notified before \_\_\_\_\_ . Ten copies of your statement should be delivered to the appropriate "Request to Speak" address by the following dates:

2. Conduct of the Hearings: We reserve the right to select the persons to be heard at this hearing, to schedule their respective presentations, and to establish the procedures governing the conduct of the hearing. The length of each presentation may be limited, based on the number of persons requesting to be heard.

An Office of Resource Applications official will be designated to preside at the hearing. This will not be a judicial or evidentiary-type hearing. Questions may be asked only by those conducting the hearing, and there will be no cross-examination of persons presenting statements. At the conclusion of all initial oral statements, each person who has made an oral statement will be given the opportunity to make a rebuttal statement. The rebuttal statements will be given in the order in which the initial statements were made and will be subject to time limitations.

You may submit questions to be asked of any person making a statement at the hearing to the address indicated above for requests to speak before 4:30 p.m., on the day preceeding the date of the hearing. If you wish to ask a question at the hearing, you may submit the question, in writing, to the presiding officer. The presiding officer will determine whether the question is relevant, and whether the time limitations permit it to be presented for answer.

Any further procedural rules needed for the proper conduct for the hearing will be announced by the presiding officer.

A transcript of the hearing will be made and the entire record of the hearing, including the transcript, will be retained by the Office of Resource Applications and made available for inspection at the DOE Freedom of Information Office, Room GB-145, 1000 Independence Avenue, S.W., Washington, D.C. 20585, between the hours of 8 a.m. and 4:30 p.m., Monday through Friday. You may purchase a copy of the transcript from the reporter.

In accordance with DOE Order 2030.1 implementing Executive Order 12044, "Improving Government Regulations," the Assistant Secretary for Resource Applications has determined that this proposed regulation is significant, since it is related to the National Energy Act, but will not have major economic consequences nor a substantial effect on existing energy objectives or statutes, nor adversely affect completion.

### III. Text Of The Authorizing Legislation

For convenience, the text of Title VI Geothermal Energy, Subtitle A, Loans for Geothermal Reservoir Confirmation is printed below.

#### TITLE VI - GEOTHERMAL ENERGY

##### Short Title

Section 601. This title may be cited as the "Geothermal Energy Act of 1980."

##### Findings

Sec. 602. The Congress finds that -

- (1) domestic geothermal reserves can be developed into regionally significant energy sources promoting the economic health and national security of the Nation;
- (2) there are institutional and economic barriers to the commercialization of geothermal technology; and
- (3) Federal agencies should consider the use of geothermal energy in the Government's buildings.

## Subtitle A

### Loans For Geothermal Reservoir Confirmation

Sec. 611. (a) The Secretary of Energy (hereafter in this title referred to as the "Secretary") is authorized to make a loan to any person, from funds appropriated (pursuant to this subtitle) to the Geothermal Resources Development Fund established under section 204 of the Geothermal Energy Research, Development, and Demonstration Act of 1974 (30 U.S.C. 1144), to assist such person in undertaking and carrying out a project which (1) is designed to explore for or determine the economic viability of a geothermal reservoir and (2) consists of surface exploration and the drilling of one or more exploratory wells.

(b) Subject to subsection (c) and to section 613(b), any loan under subsection (a) shall be repayable out of revenue from production of the geothermal energy reservoir with respect to which the loan was made, at a rate, in any year, not to exceed 20 per centum of the gross revenue from the reservoir in that year; except that if any disposition of the geothermal rights to the reservoir is made to one or more other persons by the borrower, the full amount of the loan balance outstanding, or so much of the loan balance outstanding as is equal to the full amount of the compensation realized by the borrower upon such disposition, whichever is less, shall be repaid immediately. In any case where the reservoir is confirmed (as determined by the Secretary), the Secretary may impute a reasonable revenue for purposes of determining repayment if -

- (1) reasonable efforts are not made to put such reservoir in commercial operation.
- (2) the borrower (or any such other person) utilizes the resources of the reservoir without a sale of the energy or geothermal energy resources therefrom, or
- (3) a sale of energy or geothermal energy resources from the reservoir is made for an unreasonable low price;

except that no such imputation of revenue shall be made during the three-year period immediately following such reservoir confirmation. In the event of failure to begin production of revenue (or, where no sale of energy or geothermal energy resources is made, to begin production of energy for commercial use) within five years after the date of such reservoir confirmation, the Secretary may take action to recover the value, not to exceed the amount of the unpaid balance of the loan plus any accrued interest thereon, of any assets of the project in question, including resource rights.

(c) The Secretary may at any time cancel the unpaid balance and any accrued interest on any loan made under this section if he determines, on the basis of evidence presented by the loan recipient or otherwise, that the geothermal energy reservoir with respect to which the loan was made has characteristics which make the reservoir economically or technically unacceptable for commercial development.

(d) As used in this subtitle, the term "person" includes municipalities, electric cooperatives, industrial development agencies, nonprofit organizations, and Indian tribes, as well as the entities included within such term under 1 U.S.C. § 1.

#### Loan Size Limitation

Sec. 612. The amount of any loan made under section 611(a) with respect to a project described in that section shall not exceed 50 percent of the cost of such project; except that if the loan is made to a person proposing to make application of the resources of the reservoir involved primarily for space heating or cooling or process heat for one or more structures or facilities then existing or under construction, the loan may be in any amount up to 90 per centum of such cost. In any event no loan shall be made in an amount in excess of \$3,000,000.

### Loan Rate And Repayment

Sec. 613. (a) Each loan made under section 611 shall bear interest at a discount or interest rate equal to the rate in effect (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 such loan shall be for a term which the Secretary deems appropriate, except that no loan term shall exceed twenty years beyond the date on which production of energy or geothermal energy resources begins from the reservoir involved. If revenues are inadequate (as determined by the Secretary) 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 subtitle after September 30, 1986. Amounts repaid on or before September 30, 1986, on loans theretofore made under section 611 shall be deposited in the Geothermal Resources Development Fund for purposes of this subtitle. Amounts repaid after that date on loans theretofore made under section 611, and amounts deposited in the Fund for purposes of this subtitle which remain in the Fund after that date and are not required to secure outstanding obligations under this subtitle, shall be deposited into the United States Treasury as miscellaneous receipts.

### Regulations

Sec. 615. The Secretary shall promulgate regulations to carry out this subtitle no later than six months after the date of the enactment of this Act.

Authorizations

Sec. 616. There are hereby authorized to be appropriated for loans under this subtitle not to exceed \$5,000,000 for fiscal year 1981, and not to exceed \$20,000,000 for each of the four succeeding fiscal years. Amounts so appropriated shall be deposited in the Geothermal Resources Development Fund for purposes of this subtitle, and shall remain available for such purposes until expended.

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Accordingly, it is proposed to add a new Part 797 to Title 10, Code of Federal Regulations, as follows:

PART 797 -- LOANS FOR GEOTHERMAL RESERVOIR CONFIRMATION

- Sec.
- 797.1 General purpose.
- 797.2 Purpose of loan.
- 797.3 Priority considerations.
- 797.20 Definitions.
- 797.21 Eligibility requirements.
- 797.30 Application requirements.
- 797.40 Approval procedure and requirements.
- 797.50 Loan agreement and terms.
- 797.60 Project monitoring and audit.
- 797.70 Assignment or transfer of loan.
- 797.80 Cancellation.
- 797.90 Default.
- 797.100 Disclosure.
- 797.200 Noninterference with Federal, State, regional and local requirements.
- 797.300 Overall program considerations.
- 797.400 Nondiscrimination in federally assisted programs.
- 797.500 Appeals



Authority: Sec. 401 Public Utility Regulatory Policies Act of 1978, Pub. L. 95-617, 92 Stat. 3117 (16 U.S.C. 2701) and Sec. 644, Department of Energy Organization Act, Pub. L. 95-91, 91 Stat. 565 (42 U.S.C. 7101 et seq.).

§ 797.1 General purpose.

The purpose of Subtitle A of Title VI, Geothermal Energy, of the Energy Security Act of 1980, is to stimulate the use of one of the Nations renewable energy resources. The purpose of this regulation is to establish the application procedure for a geothermal reservoir confirmation loan. The loan is to defray a percentage of the costs to explore for or confirm the economic viability of a geothermal reservoir, including surface exploration and any other tests or procedures, up to and including the drilling and/or testing of one or more exploratory wells. This regulation will also specify (a) the criteria for approval of loan applications, (b) the requirements of the completed project, (c) the borrowers obligations under a loan, (d) when the Secretary may cancel the obligation to repay the loan and (e) priorities to be accorded kinds of applications.

§ 797.2 Purpose of loan.

The purpose of a geothermal reservoir confirmation loan is to defray a percentage of the expenses to be incurred in:

- (1) exploration including thermal gradient or other shallow test hole drilling leading to the selection of a production drill test site;
- (2) environmental report preparation and permit application;
- (3) drill site preparation and restoration;
- (4) modification to preliminary well and testing designs and plans as required prior to the drilling and testing phases;
- (5) actual well drilling and associated drilling expenses;
- (6) testing during and after drilling;
- (7) fluid disposal during drilling and testing;
- (8) completion of the well, which could include well stimulation;
- (9) plugging and abandonment of an unsuccessful well;

- (10) workover necessary for re-entry and testing of an existing well;
- (11) drilling and testing of an injection well, if necessary; and
- (12) program management, consultants, and supervision required by the project work scope through completion of well testing and analysis.

By the defrayment of a percentage of the expenses incurred, it is expected that the use of geothermal energy will be stimulated and accelerated because of the reduction of financial risk and that an experienced infrastructure consisting of people and organizations will be developed that cover the entire list from (1) through (12), above.

§ 797.3 Priority considerations.

In determining the priority to be accorded a particular loan application, the Secretary may take into account factors including, but not limited to, the following:

- (a) The potential of the reservoir confirmation project to save oil or natural gas.
- (b) The likelihood, as evidenced by geological data that a resource exists at the proposed site that is adequate to support the proposed end use.
- (c) The likelihood that the project will be carried through to completion relatively quickly and that the loan will be repaid.
- (d) The need for substantial revision of the application in order to achieve compliance with this regulation.
- (e) The disparity, if any, between the size of the loan and the size of the contemplated project.
- (f) Any evident, substantial environmental implications.

- (g) A reasonable ratio of borrowers funds to DOE funds for the project.
- (h) A loan repayment schedule that is expeditious.
- (i) The cost effectiveness of the reservoir confirmation project.
- (j) The potential of the reservoir to serve additional users.

§ 797.20 Definitions.

For purposes of this part:

(a) "Secretary" means Secretary of Energy or his designated representative.

(b) "Person" specifically includes municipalities, electric cooperatives, industrial development agencies, nonprofit organizations, and Indian tribes as well as the entities included within such term under 1 U.S.C. § 1.

(c) "Municipality" means a city, county, irrigation district, drainage district, or other political subdivision or agency of a State competent under the laws thereof to carry on the business of developing, transmitting, utilizing or distributing energy.

(d) "Electric cooperative" means any cooperative association eligible to receive loans under section 4 of the Rural Electrification Act of 1936 (7 U.S.C. 904).

(e) "Industrial development agency" means any agency which is permitted to issue obligations the interest on which is excludable from gross income under section 103 of the Internal Revenue Code of 1954.

(f) "Nonprofit organization" means any organization described in section 501(c)(3) or 501(c)(4) of the Internal Revenue Code of 1954 and

exempt from tax under section 501(a) of such Code (but only with respect to a trade or business carried on by such organization which is not an unrelated trade or business, determined by applying section 513(a) to such organization).

(g) "Loan agreement" means a contractual instrument executed between the United States as the lender and a borrower which sets forth the terms and conditions for provision of funds by the United States to the borrower incidental to a reservoir confirmation loan and for repayment of the loan by the borrower.

(h) "Revenue" means gross income before expenses.

(i) "Project" means surface exploration, drilling and testing of one or more exploratory wells.

(j) "Exploratory well" means a well drilled for the purpose of or confirming the existence of a geothermal reservoir.

(k) A "confirmed reservoir" is a geothermal reservoir for which it has been established that geothermal fluids can be produced in sufficient quantity and of sufficient temperature and quality that an economic end use can be supported.

§ 797.21 Eligibility requirements.

(a) Eligible applicants for any loan under this part may be a municipality (i.e., city, county, irrigation district, drainage district or other political subdivision or agency of a State, competent as defined in § 797.20(c)), electric cooperative, industrial development agency, nonprofit organization, individual, corporation, joint stock company, partnership, association, business trust, organized group of persons (whether incorporated or not), the receiver(s) or trustee(s) of any of the foregoing, or any combination of the foregoing. Applicants may not be Federal agencies.

(b) Applicants must be United States citizens and/or meet State and Federal license and certification requirements.

§ 797.30 Application requirements.

(a) Applications for reservoir confirmation loans shall include resource, financial, scheduling and other background information in support of the application. This information will be used as a basis for the Secretary to determine whether the applicant is capable of successfully completing the reservoir confirmation project. The information required includes the following:

- (1) The amount of the loan being requested.
- (2) A description of the major tasks required including a proposed schedule for completing each major task and estimates of the cost of each major task and of total costs.
- (3) A description of the applicant(s) that indicates its history, the kind and size of its business, or, in the case of a municipality (see definition at § 797.20(c)), the experience if any, that the municipality has had with projects of this nature.
- (4) A current financial statement that includes source of revenue and a balance sheet. The Secretary may require a loan applicant to provide certification of the financial statement by a certified public accountant or equivalent certification acceptable to the Secretary.
- (5) A description of any other financial assistance (e.g., direct loans, guaranteed loans, grants) expected to be applied for or already applied for or obtained by the applicant(s) in connection with the project.
- (6) A list of all key personnel who will be involved with their responsibilities and qualifications. This list should include any contractor and consultant whose services are proposed to be used. Information should be provided to show that they are capable of meeting the schedule within cost constraints of the loan.

(7) Social Security Number(s) if the applicant is an individual or a partnership.

(8) Documentation as to each applicant's authority to undertake the activities contemplated by the application. Such documentation should take substantially the following form:

(i) If an applicant is a municipality (see definition s 797.20(c)), a state registration number or other documentation indicating that the municipality is properly and duly certified with the approving body.

(ii) If an applicant is a corporation, a copy of the charter or certificate and articles of incorporation, with any amendments, duly certified by the Secretary of State of the State where organized, and a copy of the by-laws. If the project would be located in a State other than that in which the corporation is organized, a certificate shall be included from the Secretary of State of the State in which the project would be located showing compliance with the laws relating to foreign corporations. There shall also be included a copy of all minutes, resolutions of stockholders or directors or other representatives of the applicant, properly attested, authorizing the filing of the application.

(iii) If an applicant is an association, a verified copy of its articles of association, if any, with an attested copy of the resolution of its governing board, if any, authorizing the filing of the application.

(iv) If an applicant is a nonprofit organization, verification of that fact.

(v) If an applicant is a business trust, a verified copy of the trust instrument and an attested copy of the resolution or other authority under which the application is made.

(vi) If an applicant is a joint stock company, a verified copy of the articles of association.

(vii) For purposes of this subsection, verification may be by affidavit of an authorized representative of an applicant; attestation shall be by the authorized officer of an applicant.

(9) Documentation containing evidence that:

(i) There is a user who intends to use the resource if discovered and a written agreement of intended use between the borrower and the user if the user is not the borrower.

(ii) The user or developer has or can obtain legal rights to the required land and geothermal fluid and/or heat;

(iii) Other required permits can be obtained, and

(iv) Environmental considerations have been given adequate attention.

(10) A description of the proposed project that covers the technical and economic potential. The description should address, but not necessarily be limited to, the following:

(i) A general description of the total geothermal project including exploration, drilling, full field development, completion, testing, and end use(s).

(ii) A comprehensive geological description of the resource including reasonable evidence that a resource adequate to support the intended end use exists at the site proposed. Proposals with good geologic evidence for existence of a resource will be favored over those with poor evidence. The most favorable geological evidence would be direct

evidence consisting of known thermal springs or wells or thermal spring deposits and geochemical thermometry that indicates the existence of a resource. All geological, geophysical, geochemical and hydrological evidence should be given that bears upon existence of the suspected reservoir, and negative evidence that contra indicates the existence of a resource should be given as well.

(iii) Specific details concerning the end use(s) to be made of geothermal fluids along with an analysis of the engineering and economic feasibility of the project. Engineering items to be discussed include energy requirements (e.g. temperature, flow, load factor, peak load) and system design. Economic data to be furnished include plant costs, working capital requirements, replacement costs, annual costs and taxes for the follow-on utilization system (i.e., enough information for a cash flow analysis).

(11) An exploration program description that includes geologic, geochemical and/or geophysical techniques proposed to specifically size the exploratory well.

(12) A drilling plan that briefly describes anticipated rig type, well depth, well diameter, casing schedule, drilling fluid, logging plan, etc. Later in the project, before actual drilling begins, a more detailed plan for each well will be required that complies with the applicable portions of 30 CFR Part 270.

(13) A preliminary plan for reservoir testing and analysis of the results. This plan can be modified later depending upon drill results. The plan must be grounded in accepted geohydrology and reservoir engineering techniques and must basically determine usability and longevity of the geothermal resource. Items to be specified include testing methods, duration, flow rate, measurements to be made and accuracy of same, and the techniques to analyze test data.



(14) A project management plan that:

(i) Provides a concise and definitive Statement of Work that defines the individual key work tasks and lists them in a logical sequence;

(ii) Describes the planned organizational elements and shows the reporting relationships of all key personnel who will be involved in the project;

(iii) Identifies all consultants and contractors where possible and explains the nature and extent of their efforts in support of the proposed project;

(iv) Provides a work schedule for the project that indicates the phasing and interrelationship of the various tasks as defined by the Statement of Work and identifies key milestones and decision points through testing and well completion; and

(v) Provides a cost schedule for the key work tasks identified in 13(i), above.

(b) In addition to the above required information, the loan applicant shall supply such other information as the Secretary may deem necessary to consider the request for a loan.

(c) The application shall be signed by the applicant(s) or on behalf of an applicant by an authorized representative. (Note: Title 18 United States Code, section 1001 provides criminal penalties for fraud and intentional false statements in information submitted in such an application.)

(d) Every applicant whose application has been rejected will be informed, upon request, of the reason for rejection. The rejection is not a bar to submission of an appropriately revised application.

§ 797.40 Approval procedure and requirements.

(a) Initial consideration will be given in the order that applications are received, but the time required to process an application may vary from case to case.

(b) Before issuing a geothermal reservoir confirmation loan, the Secretary must make the following findings, which will be based upon the Secretary's evaluation of the information provided in the loan application or otherwise available:

(1) That there exists a reasonable likelihood that the applicant or other person(s) who will perform the work is capable of performing it.

(2) That there is a reasonable likelihood that the applicant will repay the loan.

(3) That the project will be found to be geologically, technically and economically feasible and environmentally acceptable. The determination of economic feasibility will include consideration of costs associated with environmental and safety factors.

(4) That all requirements of this regulation have been found to be satisfied, and that the application substantially conforms to the purpose indicated in section 797.30.

(c) Additional considerations as to geothermal reservoir confirmation loans:

In determining whether or not to make a loan as well as in determining the percentage of costs such loan will defray, the Secretary may take into consideration the cost of the work as it relates to the size of the proposed project and such other matters as in the Secretary's judgment bear on the ultimate success or failure of the proposed project. (See also § 797.50(a) regarding loan limits.)

(d) Site Visits.

In making the determinations referred to in this section, the Secretary may consider information provided by a visit to the proposed site by the Secretary or his or her representative.

§ 797.50 Loan agreement and terms.

(a) A loan agreement, and a promissory note securing performance of that agreement, shall be executed in writing between the borrower and the Secretary. In addition to other provisions the Secretary may deem appropriate, the loan agreement and the promissory note shall provide as follows, either at full length or by incorporation by reference to terms of the other of the two documents.

(1) The borrower agrees to repay the loan of funds provided by the Secretary, unless the Secretary forgives repayment as provided in paragraph (a)(5)(i) of this section.

(2) The interest rate on the loan shall be equal to the rate in effect (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)). However, the repayment rate, in any year, can not be more than 20 percent of annual gross revenue from the sale or equivalent value of either electrical energy or direct energy from geothermal resources from the confirmed reservoir.

(3) The loan shall be for a term which the Secretary deems appropriate except that no loan term shall exceed twenty years beyond the date on which production of energy from the reservoir begins.

(4) No payments of principal or interest are required during the three-year period immediately following confirmation of the reservoir (as determined by the Secretary).

(5) The provisions of this subsection above shall be altered by the following circumstances:

(i) The Secretary forgives repayment of interest and principal as permitted in § 797.80.

(ii) Production of revenue from the resource has not been achieved within five years from the date of reservoir confirmation. In this event, the Secretary may take action to recover the value, not to exceed the amount of the unpaid balance of the loan plus any accrued interest thereon, of any assets of the project in question, including resource rights.

(iii) If the reservoir is confirmed but not used commercially, a revenue may be imputed by the Secretary.

(6) Payments required by the loan agreement, if not made when due, shall accrue interest at a specified rate, which shall be not less than 10 percent per annum.

(7) The loan may be used by the borrower to defray up to 50 percent of the costs of a reservoir confirmation project, except that for a project primarily for space heating or cooling or process heat, the loan may be up to 90 percent of the project costs. In no event shall a loan exceed \$3 million for a project.

(8) The loan may defray reasonable and customary costs directly related to the project and entailed in the engineering, financial, legal, environmental, social and institutional considerations necessary in the performance of the project.

(9) The borrower will make periodic reports, as required, regarding the progress of the reservoir confirmation project.

(10) Requests for disbursements at closing and thereafter shall be supported by such documents and by such indications of progress as the Secretary may require.

(11) Costs allowable under paragraph (8) of this section and incurred by a borrower prior to signing the loan agreement may be credited toward the borrower's share of costs, but in no case will such costs be reimbursable from proceeds of the loan.

(b) The documents shall also provide, either at full length or by incorporation by reference, for project monitoring and audit (see § 797.60); assignment or transfer of loan (see § 797.70); default (see § 797.90); and appeals (see § 797.500).

(c) The Secretary will not increase the amount of a loan, unless in the Secretary's judgment good cause is shown. In that event, the Secretary may require of the borrower such additional supporting covenants, collateral security arrangements, and contribution to the project as the Secretary deems necessary to protect the interests of the United States.

§ 797.60 Project monitoring and audit.

(a) The borrower shall keep such records concerning the project as are required by generally accepted accounting principles, and such other records as the Secretary may deem necessary. The Secretary may have access, for the purpose of audit and examination, to any pertinent records or other documents of the borrower and may require that copies of such documents be provided to the Department of Energy by the borrower.

(b) DOE will monitor all phases of the project as the work progresses. Therefore, DOE will require access to the project sites, when necessary, during the progress of the project.

§ 797.70 Assignment or transfer of loan.

Assignment or transfer of the loan and obligations contained thereunder may be made only with the written consent of the Secretary.

§ 797.80 Cancellation.

(a) The Secretary may cancel the unpaid balance and any accrued interest on any loan if the geothermal reservoir is determined to be technically, economically, or environmentally unacceptable for commercial development. The Secretary's determination to cancel the loan may be made prior to the completion of the project or afterwards.

(b) If, in the opinion of the Secretary, the geothermal reservoir is not suitable for the intended end use but is acceptable for commercial development of an alternate use, the Secretary may cancel a portion of the unpaid balance on a loan.

(c) The Secretary may cancel the unpaid balance and any accrued interest on a loan to a borrower who, in the Secretary's judgment, has been or will be unable to obtain a necessary license respecting the project, or any right necessary to construct and operate the project, for a reason beyond the borrower's control and despite borrower's good faith effort to do so.

(d) The Secretary will not cancel the unpaid balance and accrued interest on any loan if the Secretary finds that the borrower, in applying for the loan:

(1) Failed to provide information reasonably available to such borrower that would have indicated that there was not a reasonable likelihood the project would be found to be technically, economically and environmentally acceptable, or

(2) Withheld information indicating that the borrower would be unable to obtain a license, approval or right necessary to the project.

(e) If revenues are inadequate (as determined by the Secretary) to fully repay the principal and accrued interest within twenty years after production begins, any remaining unpaid amounts shall be forgiven. It shall be a condition of cancellation of unpaid balance or accrued interest under this section that:

(1) The Secretary's obligations to disburse funds under the loan agreement shall terminate.

(2) All technical and economic information concerning the reservoir confirmation project shall become the property of the United State except special negotiated circumstances as determined by the Secretary.

§ 797.90 Default.

(a) If the borrower fails to perform the terms and conditions of the loan agreement or any related document, the borrower shall be in default and the Secretary shall have the right, at the Secretary's option, to accelerate the indebtedness and demand full payment of all amounts outstanding, both principal and interest, under the loan.

(b) No failure on the part of the Secretary to make demand at any time shall constitute a waiver of the rights held by the Secretary.

(c) Upon demand by the Secretary, the borrower shall have a period of not more than 30 days from the date of demand to make payment in full because of default.

(d) If the failure on the part of the borrower to perform the terms and conditions of the loan agreement, or related document, does not constitute an intentional act, but is brought about as a result of circumstances largely beyond the control of the borrower, or is deemed by the Secretary to be insubstantial, the Secretary may elect, at the Secretary's option, to waive the default and restructure the repayment required by the loan agreement in any mutually acceptable manner.

(e) Should the borrower fail to pay after demand as provided in paragraph (c) of this section, the Secretary shall undertake collection in accordance with the terms of the loan agreement and the applicable law.

(f) If the borrower substantially changes the scope of the project without prior DOE approval, the borrower shall be in default.

(g) If the borrower failed to present all known facts concerning the project and related uses including financing and access rights, the borrower shall be in default.

§ 797.100 Disclosure.

Subject to the requirements of law and in accordance with Department of Energy ("DOE") regulations concerning public disclosure, trade secrets, commercial and financial information, and other information or data concerning the project that the applicant submits to DOE in writing on a privileged or confidential basis before or during the project will not be disclosed by DOE without prior notification to the applicant. Any applicant asserting that the information is privileged or confidential shall appropriately identify and mark such information. No resource data will be considered to be privileged or confidential.

§ 797.200 Noninterference With Federal, State, regional, and local requirements.

Nothing in this regulation shall be construed to modify requirements imposed on the borrower by Federal, State, regional, and local government agencies in connection with permits, licenses, or other authorizations to explore for a geothermal reservoir or confirm same by the drilling of one or more wells.

§ 797.300 Overall program considerations.

Nothing in this regulation shall be interpreted to restrict the Secretary, in making the various determinations provided for in this regulation, from taking into account considerations relating to the geothermal reservoir confirmation project loan program as a whole.



§ 797.400 Nondiscrimination in federally assisted programs.

(a) Applicants and recipients of Federal assistance from DOE are obligated to comply with civil rights requirements of the following public laws: Title VI of the Civil Rights Act of 1964; Title IX of the higher Education Amendments of 1972; Section 16 of the Federal Energy Administration Act of 1974; Section 401 of the Energy Reorganization Act of 1974; Section 504 of the Rehabilitation Act of 1973; and the Age Discrimination Act of 1975.

(b) To be in compliance with civil rights requirements, an applicant/recipient, among other obligations, must -

(1) Submit a written assurance that the program or activity will be operated in a manner that does not exclude from participation in or deny the benefits or services to individuals on the basis of race, color, national origin, sex, age, or handicap;

(2) Designate the person responsible for coordination of activities to carry out its civil rights compliance responsibilities; and

(3) Take appropriate initial and continuing steps to notify participants, beneficiaries, applicants and employees that it does not discriminate on the basis of race, color, national origin, sex, age, or handicap.

§ 797.500 Appeals.

Any dispute about a question or fact arising under the loan agreement shall be decided in writing by the DOE official who executed the agreement, or his successor. The borrower may, within 14 calendar days after receipt of the decision, make a written request to that official to reconsider the decision. The decision on the request for reconsideration, which also shall be in writing, may be appealed in writing by the borrower, within 30 calendar days after receipt, to the Chairman, Board of Contract Appeals, Department of Energy, Washington, D.C. 20545. That Board, when functioning to resolve the dispute, shall proceed in the same general manner as when it presides over appeals involving contract disputes. The decision of the Board on the dispute shall be the final decision of the Secretary.