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THE GEOTHERMAL LOAN GUARANTY PROGRAM:
RECOMMENDATIONS FOR IMPROVEMENT INCLUDING NEW
SIMPLIFIED APPLICATION PROCEDURES FOR SMALL PROJECTS

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ABSTRACT

The Geothermal Loan Guaranty Program was established by Congress in 1974 to assist industry with the financing requirements for the development and commercialization of geothermal energy. It was only the substantive Federal aid program to an emerging technology at that time. Yet in six years (as of April 1980) only four projects have been approved for a loan guaranty, three of which are electric projects and one is a small direct thermal application. Many small business/small project energy producers, developers, and users have found or concluded that they cannot qualify for a geothermal loan guaranty. This paper reports the results and recommendations of a comprehensive evaluation of the GLGP from the perspective of the small business/small project entrepreneur and from the practices of the small to medium size lending institutions. The findings are divided into administrative, regulatory and legislative recommendations.

INTRODUCTION

When the Geothermal Loan Guaranty Program (GLGP) was established in 1974, the U.S. Congress, the geothermal industry and the Energy Research and Development Administration (ERDA) were all concentrating on increasing the electrical power production capacity of the country. In the past two to three years, however, the character of the U.S. Department of Energy (DOE) geothermal program and of the geothermal industry itself has changed. Direct thermal applications have acquired increased emphasis by DOE and the geothermal industry has expanded to include numerous producers, developers and users of geothermal direct heat. Many of the direct heat participants include small businesses and/or small projects.

The Geothermal Loan Guaranty Program has been widely criticized by the small business/small project sector of the geothermal industry. Many who have examined it say that it is too burdensome to be useful, is useful only for multimillion dollar projects, and is not affordable for small projects or small businesses.

One consequence of these changes and con-

cerns has been a recognition by DOE of the need to adjust the GLGP to accommodate the demands of the small business/small project participant in geothermal energy development and utilization. The San Francisco Operations Office (DOE-SAN) authorized EG&G Idaho, Inc. (EG&G) to conduct an evaluation of the Geothermal Loan Guaranty Program. EG&G, in turn, contracted with Western Energy Planners, Ltd., to provide specific technical services. WEPL was assigned responsibility for the identification and formulation of new and simplified loan guaranty application procedures and of new administrative, regulatory and legislative proposals to match the requirements of small business/small project uses of direct thermal geothermal energy.

TECHNICAL APPROACH

In order to design application procedures and documents and to generate substantive recommendations for the Geothermal Loan Guaranty Program that would serve the intended purpose, several primary activities were conducted:

- Published materials were reviewed and analyzed.
- Interviews were conducted in order to solicit comments and recommendations from GLGP participants and prospective participants (applicants, lenders, and DOE staff).
- Draft Small Project GLGP Application Procedures were prepared and revised based upon the interview findings and consultations with DOE staff.
- A comprehensive project report was prepared for EG&G which documents the administrative, regulatory and legislative recommendations for improvement of the GLGP.

RECOMMENDATIONS FOR THE GLGP

Administrative Changes

- New Application Materials

Both descriptive and instructive application materials should be prepared to create a more positive image and better understanding

of the GLGP. Information requirements for small projects should be provided, as well. The information required should be limited to that which will demonstrate the geothermal resource, engineering, financial, market, management and legal elements for the intended use of the geothermal resource.

- **Changes in the Application Procedures**

A multi-phased, flexible set of application procedures is recommended for the GLGP. This would allow the applicant to tailor the application process to the project specifications and the information available. The applicant could also obtain tentative approval from DOE of the information submitted before proceeding to the next step in the process.

- **Changes in the Implementation Procedures**

A shortened application review process, especially for small projects, possibly by performing more of the evaluation within DOE-SAN or in collaboration with a qualified lender is suggested. A more explicit, specific and consistent definition of the evaluation criteria would also reduce a major part of the uncertainty associated with applying for a geothermal loan guaranty.

- **Marketing the GLGP**

Conferences, workshops and meetings should be held to inform prospective applicants and lenders about the program. Descriptive information brochures or flyers should be prepared and distributed. It is to be noted that such items are currently being prepared by EG&G.

- **Programmatic Additions**

Technical assistance to help prepare engineering and utilization plans and/or loan guaranty applications could assure the opportunity for small business applicants to apply. Loan repayment flexibility such as normally employed by lending institutions would be more acceptable to applicants than current GLGP practice. Delegation of certain evaluation elements to lenders could help speed and improve the evaluation process. Certification of lenders would serve a similar function, precluding the need for a lender evaluation each time the same lender participates in a guaranteed loan. Helping borrowers to identify lenders is another way in which the opportunities for use of the GLGP can be increased.

Regulatory Changes

- **Small Projects Definition**

Based upon several investigations, it is recommended that small projects be defined as those with total project costs of less than

\$10 million. Of more than 70 proposed, planned and prospective direct thermal projects identified, 95 percent were estimated to cost less than \$10 million. This definition would accommodate several other regulatory changes that are recommended to address the specific needs of small projects.

- **Limited Liability, Non-Recourse Balance Sheet Loans**

A limited liability (non-recourse) provision for corporate balance sheet financing under the GLGP could be designed to limit the liability to the physical assets associated with the geothermal/business enterprise, while at the same time basing the loan repayment evaluation on the total corporate operation. An established small business can more readily demonstrate capability to pay a loan from the proceeds of its total operation than from a semi-fictitious "project" within its operation.

- **Exempt Small Projects From U.S. Treasury Approval**

Although the 1979 Regulations have required U.S. Treasury approval only on loan guarantees over \$25 million, all geothermal loan guaranty applications have been referred to the Treasury. The time and cost of processing a loan guaranty application could be reduced by exempting projects under \$10 million from Treasury approval.

- **Establish a Set Aside of Funds for Small Projects**

A set aside of at least 10% is now provided for small utilities and small businesses for only the first six months of each fiscal year. An increased set aside should be provided to include small projects and to continue throughout the fiscal year to assure that funds are available when needed.

- **Transfer Small Project Approval Authority to DOE-SAN**

Most participants in the GLGP indicated that DOE-SAN should have authority for loan guaranty approval, especially for small projects. They believe this would reduce the application processing time and would be consistent with other Federal programs, including other geothermal programs. The DOE-SAN staff has acquired sufficient experience and success with the GLGP to warrant this transfer.

- **Eliminate Project Priorities**

Evidence shows that the system for prioritizing GLGP projects has discouraged applicants. The priorities have not yet been needed or used for decision-making. In addition, the regulations have been changed with the 1979 revised regulations from the

original 1976 version. Geothermal producers and users would prefer to have projects evaluated and judged simply on the merit of the project rather than on a priority basis.

- Reduce Maximum Loan Guaranty Percentage to 90 or 95 Percent of the Loan

Requiring a lender to accept a risk exposure of 5-10 percent of the loan would effect a stringent evaluation of the project by the lender, eliminate duplicate evaluation procedures, reduce application time and costs, and ultimately develop normal borrower-lender relationships in the geothermal industry.

Legislative Recommendations

Although most of the recommended GLGP changes can be accommodated through administrative or regulatory actions, a few may require legislative action. They are as follows:

- Authorize Loan Guarantees up to 90% of the Project Costs for Small Projects and Small Businesses.

Since a primary deterrent to geothermal development is the lack of capital, increasing the percentage eligible for the GLGP could make the program accessible to a great many more small project participants.

- Additional and Alternative Geothermal Program Funds

To stimulate geothermal commercialization, a comprehensive funding program is needed. This would include grants, direct loans, forgivable loans and loan guarantees.

These recommendations were, for the most part, stimulated by interviews with numerous participants or would-be participants in the geothermal industry. They are designed to overcome those aspects of the GLGP most often seen as deficiencies. Prospective applicants and lenders find the GLGP most interesting, but they have been discouraged from participation by their impressions of the program, some accurate, some not. With some changes, most of which can be implemented administratively, the GLGP is capable of making a significant contribution to the stimulation of the geothermal industry and the commercialization of geothermal energy.

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