

Solicitation — Geothermal Drilling Development and Well Maintenance Projects

RECEIVED**JUL 21 1999****OSTI**

The Geothermal Drilling Organization (GDO), founded in 1982 as a joint U.S. Department of Energy (DOE)-industry research and development (R&D) organization, sponsors near-term technology development projects for reducing geothermal drilling and well maintenance costs. Sandia National Laboratories (Albuquerque, NM) administers DOE funds for GDO cost-shared projects and provides technical support.

The GDO invites interested parties to submit proposals for its FY 2000 program. Proposed projects should serve near-term needs for geothermal industry drilling and/or well maintenance technology.

Background

Drilling-related projects considered for funding by the GDO are usually those where basic R&D have already been completed — most are ready for commercialization after applications development and field-testing. GDO projects generally support technologies under development by industry, but occasionally build upon Sandia's geothermal R&D.

The GDO serves a very important function in fostering geothermal development. It encourages commercialization of emerging, cost-reducing drilling technologies, while fostering a spirit of cooperation among various segments of the geothermal industry. For Sandia, the GDO also serves as a means of identifying the geothermal industry's drilling and/or well maintenance problems, and provides an important forum for technology transfer.

Successfully completed GDO projects include: the development of a high-temperature borehole televiewer, high-temperature rotating head rubbers, a retrievable whipstock, and a high-temperature / high-pressure valve-changing tool. Ongoing GDO projects include technology for stemming lost circulation; foam cement integrity log interpretation, insulated drill pipe, percussive mud hammers for geothermal drilling, a high-temperature/ high-pressure valve changing tool assembly (adding a milling capability), deformed casing remediation, high-temperature steering tools, diagnostic instrumentation for casing in geothermal wells, and elastomeric casing protectors.

New GDO projects are sought annually. Funds available for new projects in FY 2000 are

DISCLAIMER

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, make any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

DISCLAIMER

Portions of this document may be illegible in electronic image products. Images are produced from the best available original document.

expected to be approximately \$500,000. Projects require matching support from industry (cash or in-kind) and require the participation of a geothermal operator and a drilling service company. Phased projects are encouraged, with the end of each phase marking a decision point for continued support. Multi-year projects are acceptable.

Statement of Work/Objective/Tasks

The objective of proposals should be to reduce geothermal drilling and/or well maintenance costs by developing and commercializing new tools, materials, and techniques via cost-shared projects. Industry participants offering proposals should be prepared to share (or arrange for sharing with other participants) at least 50 percent of project costs.

Proposals Submitted for GDO Funding in FY 2000 Must Meet the Following Requirements:

- 1 Geothermal drilling and/or well maintenance related.
- 2 Near-term need and applicability.
- 3 Support/participation of a drilling service company.
- 4 Support/participation from a geothermal operator.
- 5 In the range of 4-10 pages.
- 6 Plans for at least 50-percent (non-DOE) cost-share in terms of cash or in kind services (Contributions can also come from other participants or interested parties).

Proposals Must Contain the Following Information:

- 1 Rationale for the project.
- 2 Statement of work.
- 3 Evidence of geothermal operator participation.
- 4 Evidence of service company participation.
- 5 An outline detailing industry plans for cost sharing.

Proposals should not contain proprietary information. However, if proprietary information must be included, it should be clearly marked. GDO Secretary Allan R. Sattler should be notified (Telephone: [505] 844-1019), so that appropriate steps can be taken to protect the data.

Evaluation Procedures and Criteria for Contract Awards

The membership-at-large will have an opportunity to provide feedback to each proposer and to the GDO Executive Committee prior to evaluation of the proposals. The Executive Committee will score the proposals after they have been discussed by GDO members. Scores will be forwarded to Sandia for consideration. At the request of the proposing team, projects not funded may be considered during subsequent evaluations.

Proposals Will be Scored on the Following Basis:

- 1 Meets needs of geothermal industry and is timely (45 points).

- 2 Ability of proposing team to perform work (20 points).
- 3 Relevance/impact/soundness (20 points).
- 4 Cost/schedule estimates consistent with work plan (15 points).

GDO Guidelines and Proposal Procedures for FY 2000

- June 30** Publication of formal solicitation in the Geothermal Resources Council Bulletin at least 60 days prior to the August 30 proposal due date. GDO members, those on the GDO Interested Parties mailing list, and any appropriate party calling the GDO Secretary, will receive a mailed notice.
- August 30** GDO Secretary must receive proposals in order for them to be eligible for consideration. The GDO Secretary will screen the proposals to insure they satisfy published requirements.
- September 10** After being qualified under the screening criteria by the GDO Secretary, the accepted proposals will be sent to the entire GDO membership for consideration.
- October 20** Proposals will be presented to and discussed by the GDO members at the GDO Annual Meeting. They may be modified later based on feedback from the GDO members.
- December 1** Modified proposals must be received by the GDO Secretary. Again, modification of proposals is *not* a requirement.
- December 15** Executive Committee reviews and ranks the accepted proposals according to the evaluation criteria.
- December 22** Proposals and their ranking are forwarded to Sandia for funding consideration.
- January 15** Project Letter Agreements (PLAs) are prepared for selected GDO projects to enable project contracts and operations to be initiated and administered. All GDO project contracts will follow to DOE/Sandia contracting procedures.

For Further Information, Contact the GDO Secretary:

Allan R. Sattler
Sandia National Laboratories
P. O. Box 5800 — MS-1033
Albuquerque, New Mexico 87185-1033
Telephone: (505) 844-1019
Fax: (505) 844-0240
E-mail: <arsattl@sandia.gov>