CARR & FERRELL LLP

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Department of Energy Grants:

DOE Funding Availability for Cleantech and Alternative Energy

Background

While the market remains strong for cleantech and alternative energy technologies, traditional venture-backed funding for all companies has tightened in recent months. However, the government's increasing focus on clean energy and desire for domestic energy self-sufficiency, combined with the 2009 Recovery Act stimulus package have created an enormous opportunity for innovative technologies in the cleantech sector to obtain money from the federal government. Further, start-up investors have discovered that cooperation with the federal government is crucial to the cleantech and alternative energy industry. As a result, this industry, perhaps more than any other, is seeing a growing cooperation between Silicon Valley and Washington, D.C. This article explores some of the greatest grant opportunities through the Department of Energy (the "**DOE**") and explains the basics on how to apply for and obtain these grants.

Agencies within the DOE

The vast majority of grant opportunities through the DOE come from three agencies: the Office of Science, the Office of Energy Efficiency and Renewable Energy, and the Advanced Research Projects Agency – Energy ("**ARPA-E**"). The DOE maintains a home page describing these and other program offices as well, some of which have additional funding opportunities. http://www.energy.gov/

1. **The Office of Science:** The Office of Science is the largest source of grant funding in the DOE (http://www.sc.doe.gov/). The Office of Science focuses on basic scientific research and innovative projects. The Office of Science includes several program departments including, Basic Energy Sciences, High Energy Physics, Nuclear Physics, Advanced Scientific Computing Research, Fusion Energy Sciences, and Biological and Environmental Research.

2. **The Office of Energy Efficiency and Renewable Energy:** The Office of Energy Efficiency and Renewable Energy (http://www.eere.energy.gov/) formulates and directs programs designed to increase the production and utilization of renewable energy and improve the energy efficiency of the transportation, buildings, industrial, and power sectors through support of research, development, and technology transfer activities. It focuses on projects commonly associated with cleantech such as: solar energy, geothermal technology, biomass, wind power, hydroelectric power and smart grid technology.

3. **The Advanced Research Projects Agency – Energy:** ARPA-E, established in 2007, was created to help develop and encourage new major disruptive energy technologies through financing transformational energy-related research and development projects. This agency gained significant prominence within the DOE after a $400 million allocation through the 2009 Recovery Act. The agency's mission objectives are: To ensure that the U.S. maintains a technological lead in developing and deploying advanced energy technologies and to enhance the economic and energy security of the U.S. through projects that result in: 1.) reductions of imports of energy from foreign sources; 2.) reductions of energy-related emissions, including greenhouse gases; and 3.) improvement in the energy efficiency of all economic sections. The agency only funds projects that are beyond incremental changes to energy-technology. This agency invests in both early-stage and late-stage companies. Most money is awarded through Cooperative Agreements and Technology Investment Agreements, although some direct grants may be awarded. Awards are generally between $2 million and $5 million, but may be as low as $500,000 and as high as $20 million.

Registering to Apply for Funding Opportunities

In order to review and apply for funding opportunities through the DOE, a company will need to register. The majority of DOE funding opportunities are announced on the DOE's e-Center website (http://e-center.doe.gov/). Additionally, some smaller agencies within the DOE have not yet moved their funding opportunities to e-Center, but rather post their opportunities on the Grants.gov (http://www.grants.gov/) website, where its solicited opportunities are listed with those from other federal agencies. To ensure that you can

apply to opportunities at both locations, the DOE recommends that you register with the DOE's e-Center as well as Grants.gov to ensure that you can submit your proposal, bid, or application to either site.

As with most government programs, you will first need to register with the above sites. To do so, you will need to obtain a Data Universal Number System (DUNS) number, which can be obtained through Dun & Bradstreet at http://fedgov.dnb.com. Also, if your organization does not have a Taxpayer Identification Number (TIN) or Employer Identification Number (EIN), you will need to obtain one. Information on obtaining an EIN or TIN can be found at: http://www.irs.gov/businesses/. As the process of registration may take several weeks, anyone considering applying for grants or doing business with the DOE should register as soon as possible.

The Application Process

To apply for grants through the DOE, a researcher can either respond to solicitations or submit an unsolicited bid. The numerous program offices issue broad-based solicitations on an annual basis, which can be viewed through the DOE's Interactive Procurement System (IIPS) at the e-Center website.

ARPA-E Applications

ARPA-E follows a different application process from the other DOE agencies. Because it funds extremely unique projects, it includes a screening process prior to the formal application review, and it has an application process more tailored to each specific project. ARPA-E requires submission of a concept paper as a first step in its application process. It is limited to eight (8) pages and must include an abstract, technical section, mission impact section and cost summary. Also, the project should help to reach a broader energy strategy under President Obama's energy and environment agenda:

1. **Reduce greenhouse emissions:** Drive down emissions to 80% below 1990 levels by 2050, and ensure 25 percent of our electricity comes from renewable resources by 2025

2. **Enhance Energy Security:** Save more oil than the U.S. currently imports from the Middle East and Venezuela combined (more than 3.5 million barrels per day) within 10 years

3. **Restore Science Leadership:** Strengthen America's role as the world leader in science and technology

4. **Quickly Implement the Economic Recovery Package:** Create millions of new green jobs and lay the foundation for the future.

ARPA-E will notify applicants of their decision on a concept paper with, if accepted, a deadline for submission of a full application. The concept paper notification will contain instructions and minimum requirements for the full application, but in general, the application will include an SF 424 Application for Federal Assistance as well as a developed technical section, budget section and one power point slide of the project's summary.

Unsolicited Proposals

In addition to the solicited proposal processes described above, the DOE funds many unsolicited proposals every year. Anyone who has a unique or innovative idea which may have merit but is not in response to an existing solicitation is encouraged to apply through this process. Funding for unsolicited proposals is considered a noncompetitive action. A guide to submitting unsolicited proposals can be found at http://netl.doe.gov/index.html. The three different unsolicited programs include the Small Business Innovative Research Program, the Small Business Technology Transfer Program, and the Inventions and Innovations Program. The first two are managed by the Office of Science (http://www.sc.doe.gov/sbir) and the third is managed by the Office of Energy Efficiency and Renewable Energy (https://commons.era.nih.gov/commons/).

The DOE will consider all areas of energy and energy-related research and development, with an emphasis on long-term, high-risk, high-payoff technologies. Specifically, the DOE uses the following general criteria as a baseline as to whether it will consider an unsolicited proposal:

1. Demonstration of a unique and innovative concept, or demonstration of a unique capability of the applicant
2. A concept or service not otherwise available to the Government
3. Not already covered by a recent, current or pending solicited Requests for Application
4. Independently originated by the proposer without Government supervision

Also, from time to time, a program office may encourage researchers to submit unsolicited proposals by issuing a Notice of Program Interest (**"NOPI"**). A NOPI provides general, broad information about the particular DOE program. This is not a formal solicitation, but rather a communication device which informs and helps potential interested proposers to focus on broad areas where submission of an unsolicited proposal may be mutually beneficial to both DOE and the proposer.

In order to determine a level of interest in an unsolicited proposal, the DOE encourages preliminary discussions with the potential applicant, and will accept preliminary abstracts of the proposed project. These abstracts must be at least 500 words, briefly describing the technology and why it is beneficial and applicable to the DOE. Such preliminary abstracts should be submitted to:

Unsolicited Proposal Manager
U.S. Department of Energy
National Energy Technology Laboratory
626 Cochrans Mill Road
P.O. Box 10940, MS 921-107
Pittsburgh, PA 15236-0940

If you decide that you have a concept that fits the DOE criteria for an unsolicited proposal, you may submit such proposal. For an unsolicited application, the DOE makes a preliminary determination as to whether the application contains basic technical and cost information, and whether it properly complies with data disclosure restrictions. Provided that it meets these requirements, the DOE will review the application in full based on the following criteria:

1. Unique and innovative methods, approaches or concepts demonstrated by the proposal
2. Overall scientific/technical or socioeconomic merit of the proposed activity
3. Potential contribution of the effort to the DOE's specific mission
4. The proposer's capabilities, related experience, facilities, techniques, or unique combinations of these which are integral factors for achieving the proposal objectives
5. The qualifications, capabilities, and experience of the proposed principal investigator, team leader, or key personnel who are critical in achieving the proposal objectives
6. The realism of the proposed costs
7. The availability of funding to support the proposed project and the relative merit of the project to others which could be supported with the same funds

Disclosure of Information and Protection of Intellectual Property
In the application process, an applicant may be requested to supply information on intellectual property. Any submission that contains proprietary information, whether protected by patent, trade secret or otherwise, should include the following legend, which has been approved by the DOE, on the title page:

"USE AND DISCLOSURE OF DATA
This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed-in whole or in part- for any purpose other than to evaluate this proposal. However, if a contract is awarded to this offeror as a result of-or in connection with-the submission of these data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Government's right to use information contained in these data if they are obtained from another source without restriction. The data subject to this restriction are contained in [insert page numbers]."

The applicant should also mark each page of the data it wishes to restrict with the following: "Use or disclosure of data contained on this page is subject to the restriction on the title page of this proposal."

In most cases, small businesses have the right to elect to retain title to any inventions they make in the performance of DOE funding agreements, unless the DOE determines that exceptional circumstances require a different disposition of rights. To preserve existing rights it is suggested that those who believe they have patentable inventions should file, as a protection to themselves and to the Government, necessary patent applications with the U.S. Patent and Trademark Office.

More Information

In addition to the above-listed opportunities, the DOE provides funds to state and local government projects, as well as numerous research laboratories and entities that often subcontract with smaller companies. Carr & Ferrell maintains information on these and other funding sources, and continually updates its materials on such opportunities.

For more information, or if we can be of assistance in any of your funding or other corporate needs, please contact Barry Carr, Jill Fishbein or Rob Keller of Carr & Ferrell's Corporate Group at 650-812-3400.

