

Up to \$24 Million in Renewable Energy Funding Available in the Areas of Advanced Hydrogen Storage Technologies and Advanced Biofuels Development

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Publication Date: April 04, 2011

Overview

The Department of Energy's Office of Energy Efficiency and Renewable Energy ("EERE") has two Funding Opportunity Announcements ("FOAs") dealing with the promotion of renewable and alternative sources of energy.

DE-FOA-0000421 promotes applied research and development projects in the area of hydrogen storage, a key concern in lowering the cost of fuel cells that use hydrogen, especially those used in automotive applications. Up to \$12 million is available under this program. DE -FOA-0000467 promotes laboratory or small pilot-scale projects that support the development of advanced biofuels. Another \$12 million over the next three years is available under this program. This Client Alert provides details behind the two major initiatives included within these FOAs and discusses the key specifics in the application process.

The Public Policy & Infrastructure practice has worked with a number of Reed Smith clients in crafting competitive applications for grant funding and complementary strategies to achieve funding, including obtaining support and assistance from members of Congress. We remain available to assist in the preliminary notice and development of a competitive application for funds under these Funding Opportunity Announcements ("FOAs").

Research and Development for Hydrogen Storage (DE-FOA-0000421)

Description. The EERE, through its Fuel Cell Technologies Program, seeks to "address the full range of barriers facing the development and deployment of hydrogen and fuel cells" (www1.eere.energy.gov/hydrogenandfuelcells). One of these barriers noted in the FOA is "developing systems to enable the lightweight, compact, and inexpensive storage of hydrogen" (p. 5). This is particularly felt in the development of vehicles propelled by fuel cells, i.e., the high pressure tanks

currently needed for onboard storage of the hydrogen gas "may be too expensive and bulky" to make the vehicle competitive with conventionally fueled vehicles (p. 5). As a result, the FOA is broken into two topic areas. Topic 1 funds R&D projects that help by "Reducing the Cost of Hydrogen Storage Tanks" in vehicles, considered essential to the commercialization of fuel cell vehicles. Topic 2 deals with "New Materials Discovery" for the handling of hydrogen materials, including off-board bulk storage and stationary back-up power applications. Each project application must only address one Topic and make clear on the cover sheet which Topic is being addressed. Project duration is expected to be 18 to 36 months, and the application must show key milestones for the project, as well as expected products, potential commercialization partners, and outcomes of the project.

Who is Eligible To Apply for Funds? For both Topics, eligible applicants include (1) institutes of higher learning, (2) both nonprofit and for-profit entities, (3) state and local governments, and (4) Indian tribes.

Is a Match of Cost-Share Required? At least a 20 percent non-federal match is required for Topic 1 and 2 projects.

Funding and Awards. Up to \$12 million is available to award as many as 12 project grants. The maximum award amount is \$2 million for individual awards and \$4 million for team awards (defined as two or more collaborators with a significant role in the project).

Deadlines for Optional Letter of Intent and Application

- Applicants are encouraged-but not required-to submit a letter of intent by April, 8, 2011. It should include "the name of the applicant, the title of the project, the name of the Project Director/Principal Investigator(s), the amount of funds requested, and a one-page abstract. Letters of intent and accompanying abstracts will be used by DOE to organize and expedite the merit review process." (p. 17)
- Applications must be received by April 29, 2011 no later than 11:59 EDT. There is no pre-application requirement.

Supporting Advanced Biofuels Development (DE-FOA-0000467)

Description. The EERE, through its Office of Biomass Program, is seeking "applications to develop and demonstrate technology and processes that yield a finished fuel (blendstock), infrastructure ready-hydrocarbon, and/or biofuel-enabling chemical product (i.e., fuel additives)." (p. 6) The EERE's website notes that "there are many types of biomass-organic matter such as plants, residue from agriculture and

forestry, and the organic component of municipal and industrial wastes-that can now be used to produce fuels, chemicals, and power." (www.eere.energy.gov/basics/renewable_energy/biomass.html)

The FOA further notes that "successful applicants will design and operate fully integrated (all unit process operations, including recycle loops) processes that will ultimately be capable of reaching steady state and generating long-term, continuous data sufficient to validate the process. The upgrading process will be instrumented such that all relevant process parameters can be continuously monitored and logged throughout the course of experimental activities. This effort will include the utilization of syngas from at least three different biomass feedstocks with two of the three being a woody biomass and corn stover. The third feedstock may be any renewable lignocellulosic or algal material chosen by the applicant." (p. 7)

Who is Eligible To Apply for Funds? The same entities eligible for the hydrogen storage FOA are eligible to apply for this FOA, with the exception of nonprofits. The FOA further requires that "at least 50% of the work carried out...must take place within the U.S., including territories and commonwealths of the U.S." (p. 10)

Is a Match of Cost-Share Required? At least a 20 percent non-federal match is required.

Funding and Awards. Up to \$12 million is available to award as many as five project grants. As much as \$4.5 million is expected to be available for new awards in the current fiscal year and an additional \$7.5 million is expected to be available for awards for the next two fiscal years, subject to annual appropriations. The maximum award is \$4 million.

Deadline. Applications must be received by May 6, 2011, no later than 11:59 EDT. There is no letter of intent or pre-application requirement.

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