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**[NOTICE OF INTENT: GEOTHERMAL TECHNOLOGY ADVANCEMENT FOR RAPID DEVELOPMENT OF RESOURCES IN THE U.S.](#)**

The U.S. Department of Energy's (DOE) Geothermal Technologies Program (GTP) intends to issue a Funding Opportunity Announcement (FOA) to expand its partnership with the geothermal community on geothermal systems research and development (R&D) throughout the United States in order to support GTP's goal of lowering the cost of geothermal energy to 6 cents/kWh. This Notice of Intent is designed to provide an opportunity for potential applicants to begin developing partnerships and begin the process of gathering data to prepare their application.

This Notice of Intent is intended to provide potential applicants advance notice of the upcoming GTP FOA. Prospective applicants should begin developing partnerships, formulating ideas, and gathering data in anticipation of the issuance of the FOA scheduled for early June 2011.

Please do not respond or submit questions in response to this Notice of Intent. NO APPLICATIONS WILL BE ACCEPTED THROUGH THIS NOTICE. DOE reserves the right to change the requirements of any proposed FOA, issue a FOA involving only a portion of the elements listed, or not issue a FOA at all. Any of the information contained in this Notice of Intent is subject to change.

Expected Number of Awards: unavailable  
Estimated Total Program Funding: unavailable  
Award Ceiling: unavailable  
Award Floor: unavailable  
Eligible Applicants: Unrestricted  
**Application Deadline: Jul 15, 2011**

**[CATALYTIC UPGRADING OF THERMOCHEMICAL INTERMEDIATES TO HYDROCARBONS](#)**

The U.S. Department of Energy (DOE) is seeking applications to develop fully integrated catalytic upgrading processes that will be capable of long term continuous processing of the proposed feed stream (from thermochemical degradation of raw biomass). The upgrading process can be stand alone (yielding a finished fuel/blend stock) or it can be a processing step that produces feed streams compatible with existing shipping/transportation infrastructure and petroleum refining unit operations.

Expected Number of Awards:  
Estimated Total Program Funding: \$12,000,000  
Award Ceiling: \$4,000,000  
Award Floor: \$0  
Eligible Applicants: All domestic entities are eligible to apply to this FOA, except nonprofit organizations described in section 501(c)(4) of the Internal Revenue Code of 1986 that engaged in lobbying activities after December 31, 1995.  
**Application Deadline: May 23, 2011**

## **RURAL ENERGY FOR AMERICA PROGRAM (REAP) - FEASIBILITY**

The Rural Energy for America Program will provide funds to agricultural producers and rural small businesses to conduct feasibility studies for renewable energy systems. The Rural Energy for America Program is designed to help agricultural producers and rural small businesses reduce energy costs and consumption and help meet the nation's critical energy needs.

Expected Number of Awards: 75

Estimated Total Program Funding: \$2,000,000

Award Ceiling: \$50,000

Award Floor: \$0

Eligible Applicants: Eligible applicants are agricultural producers and rural small businesses. All agricultural producers, including farmers and ranchers, who gain 50% or more of their gross income from the agricultural operations are eligible. Small businesses that are located in a rural area can also apply. Rural electric cooperatives may also be eligible to apply.

Application Deadline: June 30, 2011

## **RURAL ENERGY FOR AMERICA PROGRAM (REAP) – ENERGY AUDIT AND RENEWABLE ENERGY DEVELOPMENT ASSISTANCE**

The REAP/ Energy Audit and Renewable Energy Development Assist Grant Program will provide grants for energy audits and renewable energy development assistance.

Expected Number of Awards: 30

Estimated Total Program Funding: \$2,800,000

Award Ceiling: \$100,000

Award Floor: \$0

Eligible Applicants: Native American tribal governments (Federally recognized), Native American tribal organizations (other than Federally recognized tribal governments), Eligible entities include a unit of State, tribal, or local government and their instrumentalities; institutions of higher education; rural electric cooperatives; or a public power entity. The program is design to assist farmers, ranchers, and rural small businesses.

Application Deadline: June 30, 2011

## **REQUEST FOR INFORMATION (RFI) FUEL CELL TECHNOLOGIES PROGRAM TECHNOLOGY VALIDATION ACTIVITIES**

The Department of Energy (DOE) seeks feedback from stakeholders for Technology Validation activities aimed at demonstrating and validating fuel cell and hydrogen technologies, consistent with DOE's on-going efforts. Areas of interest include: 1) Innovative concepts for: a) stationary fuel cell systems for residential and commercial applications, including combined heat and power (CHP) and combined cycle operation and b) combined heat, hydrogen, and power (CHHP) co-production fuel cell systems; and 2) Technology Validation projects for other markets.

The purpose of this RFI is to gather feedback from stakeholders prior to DOE potentially issuing a Technology Validation funding opportunity announcement (FOA). This RFI is not a FOA; therefore, DOE is not accepting applications at this time. DOE may issue a FOA in the future, providing approximately 60 calendar days for applicants to prepare and submit applications. Only responses to the questions

stated herein and general comments are being solicited. Final details, including the anticipated award size, quantity, and timing of DOE funded awards, will be subject to Congressional appropriations and direction. However, DOE may also elect not to issue a FOA and there is no guarantee that a FOA will be issued as a result of this RFI.

Expected Number of Awards: Unavailable  
Estimated Total Program Funding: Unavailable  
Award Ceiling: Unavailable  
Award Floor: Unavailable  
Eligible Applicants: Unrestricted  
**Application Deadline: June 1, 2011**

### **BIOMASS RESEARCH AND DEVELOPMENT INITIATIVE**

The U.S. Department of Agriculture (USDA) and the U.S. Department of Energy request proposals for the Biomass Research and Development Initiative. Projects must integrate the following technical areas: Feedstocks development; Biofuels and biobased products development; and Biofuels and biobased products development analysis. Alongside integration of these areas, USDA specifically seeks farm and industrial demonstration(s) and analysis of using biodiesel to improve commercial grain and cellulosic ethanol production systems.

Expected Number of Awards: 8  
Estimated Total Program Funding: \$30,000,000  
Award Ceiling: \$7,000,000  
Award Floor: \$3,000,000  
Eligible Applicants: (A) an institution of higher education;  
(B) a National Laboratory;  
(C) a Federal research agency;  
(D) a State research agency;  
(E) a private sector entity;  
(F) a nonprofit organization; or  
(G) a consortium of 2 or more entities described in subparagraphs (A) through (F).  
**Pre-Application Deadline: May 31, 2011**  
**Final Proposals Deadline: October 4, 2011**

### **HEALTHY HOMES PROGRAM**

The U.S. Department of Housing & Urban Development (HUD) requests proposals for the Healthy Homes Production Program. This program supports projects that identify and correct significant housing-related health and safety hazards in privately owned, low-income rental or owner occupied housing. HUD is especially interested in projects that integrate healthy homes practices into existing housing rehabilitation, property maintenance, weatherization, energy efficiency improvements, and other housing improvement programs.

Expected Number of Awards: Unavailable  
Estimated Total Program Funding: \$13,300,000  
Award Ceiling: Unavailable  
Award Floor: Unavailable  
Eligible Applicants: a. States, Native American Tribes, cities, counties/parishes, or other units of local government. Multiple units of a local government (or multiple

local governments) may apply as a consortium; however, a principal (lead) applicant must be identified that will be responsible for ensuring compliance with all requirements specified in this NOFA. b. Non-profits with 501(c)(3) status located in the U.S. c. Academic institutions located in the U.S.

**Application Deadline: June 9, 2011**

### **THE RURAL ENERGY FOR AMERICA PROGRAM (REAP) – RENEWABLE ENERGY SYSTEMS AND ENERGY EFFICIENCY IMPROVEMENTS GRANT**

The Rural Energy for America Program will provide funds to agricultural producers and rural small businesses to install renewable energy systems and energy efficiency improvements. The Rural Energy for America Program is designed to help agricultural producers and rural small businesses reduce energy costs and consumption and help meet the nations critical energy needs. The grants are awarded on a competitive basis.

Expected Number of Awards: 2000

Estimated Total Program Funding: \$70,000,000

Award Ceiling: \$500,000

Award Floor: Unavailable

Eligible Applicants: Eligible applicants are agricultural producers and rural small businesses. All agricultural producers, including farmers and ranchers, who gain 50% or more of their gross income from the agricultural operations are eligible. Small businesses that are located in a rural area can also apply. Rural electric cooperatives may also be eligible to apply.

**Application Deadline: June 15, 2011**

### **REQUEST FOR INFORMATION (RFI) FUEL CELL TRANSIT BUS TARGETS GRANT**

This is a Request for Information (RFI) only; therefore, the Department of Energy (DOE) and Department of Transportation (DOT) are not accepting applications at this time. The U.S. Department of Energy (DOE) and the U.S. Department of Transportation (DOT) is seeking input from stakeholders and the research community on proposed technical and cost targets for fuel cell transit buses.

Expected Number of Awards: Unavailable

Estimated Total Program Funding: Unavailable

Award Ceiling: Unavailable

Award Floor: Unavailable

Eligible Applicants: Unavailable

**Application Deadline: June 1, 2011**

### **THEORETICAL RESEARCH IN MAGNETIC FUSION ENERGY SCIENCE**

The Fusion Energy Sciences (FES) program of the Office of Science (SC), U.S. Department of Energy (DOE), hereby announces its interest in receiving grant applications for theoretical research relevant to the U.S. program in magnetic fusion energy sciences. All individuals or groups planning to submit applications for new or renewal funding in Fiscal Year 2012 should submit in response to this Funding Opportunity Announcement (FOA). The specific areas of interest are: 1.

Magnetohydrodynamics; 2. Confinement and Transport; 3. Boundary Physics; 4. Plasma Heating, Non-inductive Current Drive, and Energetic Particles; 5. Atomic and Molecular Processes in Plasmas

Expected Number of Awards: 17  
Estimated Total Program Funding: \$3,300,000  
Award Ceiling: \$2,000,000  
Award Floor: Unavailable  
Eligible Applicants: Unrestricted  
**Application Deadline: May 26, 2011**

**DEVELOPMENT OF NEW AND IMPROVED METHODS FOR THE CHARACTERIZATIONS OF NANOPARTICLES IN ENVIRONMENTAL MEDIA GRANT**

This notice announces the availability of funds and solicits applications to develop new and improve existing methods for the characterization of nanoparticles, in situ, in environmental media.

Expected Number of Awards: 1  
Estimated Total Program Funding: \$80,000  
Award Ceiling: \$80,000  
Award Floor: \$80,000  
Eligible Applicants: Programs under CFDA 66.511 are available to each State, territory and possession, and Tribal nation of the United States, including the District of Columbia, for public and private State universities and colleges, hospitals, laboratories, State and local government departments, and other public or private nonprofit institutions and in some cases, individuals who have demonstrated unusually high scientific ability. Profit-making firms are not eligible to receive awards under this announcement.  
**Application Deadline: May 30, 2011**

**CLEAN CITIES COMMUNITY READINESS AND PLANNING FOR PLUG-IN ELECTRIC VEHICLES AND CHARGING INFRASTRUCTURE GRANT**

The President has a goal of putting 1 million advanced technology vehicles on the road in the United States by 2015. In support of this goal and emphasizing electricity as a transportation fuel, this Funding Opportunity Announcement seeks projects to plan and implement policies, procedures, and incentives that facilitate that development. The planning and policy activities will prepare communities for successful deployment and implementation of plug-in electric drive vehicles. Overall, this effort will help to decrease the nation's dependence on petroleum and reduce greenhouse gas emissions by accelerating the deployment of plug-in electric drive vehicles and electric vehicle supply equipment (EVSE).

Expected Number of Awards: 15  
Estimated Total Program Funding: \$5,000,000  
Award Ceiling: \$500,000  
Award Floor: \$250,000  
Eligible Applicants: Unrestricted  
**Application Deadline: June 13, 2011**

## **TERABIT NETWORKING FOR EXTREME-SCALE SCIENCE GRANT**

The Office of Advanced Scientific Computing Research (ASCR) in the Office of Science (SC) at the U.S. Department of Energy (DOE) hereby invites grant applications to address key challenges in developing, exploiting, or operating federated end-to-end terabit networks that support distributed extreme-scale science. This Funding Opportunity Announcement (FOA) calls for innovative approaches to develop federated terabit network tools and services that address DOE's emerging network challenges. The major priorities in addressing these challenges include mechanisms that: allow hosts to create/terminate a dynamic circuit; isolate high-impact science flows from normal traffic flows; allow flows to seamlessly move between shared Internet Protocol (IP) and dynamic circuit infrastructures; allow network operators to effectively manage their part of the end-to-end path; perform fault diagnosis and performance prediction; allow flows to operate across domain boundaries; co-schedule components/resources needed by an application; and predict application behavior notifying users/administrators when it falls below a threshold. Projects supported by this FOA may be a combination of algorithms, hardware, software, and/or radical concepts that scale beyond what can be achieved over today's infrastructure. Applications should also address how their solutions could be deployed, tested, and integrated into DOE network infrastructure.

Expected Number of Awards: 10

Estimated Total Program Funding: \$3,700,000

Award Ceiling: \$750,000

Award Floor: \$175,000

Eligible Applicants: All types of domestic entities are eligible to apply, except other Federal agencies, Federally Funded Research and Development Center (FFRDC) Contractors, and nonprofit organizations described in section 501(c)(4) of the Internal Revenue Code of 1986 that engaged in lobbying activities after December 31, 1995.

**Application Deadline: May 23, 2011**

## **ENERGY FOR SUSTAINABILITY**

The Energy for Sustainability program supports fundamental research and education that will enable innovative processes for the sustainable production of electricity and transportation fuels. Processes for sustainable energy production must be environmentally benign, reduce greenhouse gas production, and utilize renewable or bio-based resources that are abundant in the United States. The most abundant and sustainable source of renewable energy is the sun. The Energy for Sustainability program emphasizes two themes which harness solar energy to make fuels and electrical power: biofuels and bioenergy, and photovoltaic solar energy. In addition, this program also supports research in wind and wave energy, sustainable energy technology assessment, and fuel cells.

Expected Number of Awards: 42

Estimated Total Program Funding: \$9,200,000

Award Ceiling: Unavailable

Award Floor: \$300,000

Eligible Applicants: Unrestricted

**Application Deadline: September 15, 2011**

## **ENVIRONMENTAL SUSTAINABILITY**

The Environmental Sustainability program supports engineering research with the goal of promoting sustainable engineered systems that support human well-being and that are also compatible with sustaining natural (environmental) systems. These systems provide ecological services vital for human survival. The long-term viability of natural capital is critical for many areas of human endeavor. Research in Environmental Sustainability typically considers long time horizons and may incorporate contributions from the social sciences and ethics.

This program supports engineering research that seeks to balance society's need to provide ecological protection and maintain stable economic conditions. There are four principal general research areas which are supported, but others can be proposed:

- Industrial Ecology
- Green Engineering
- Ecological Engineering
- Earth Systems Engineering

Expected Number of Awards: 45

Estimated Total Program Funding: \$5,400,000

Award Ceiling: Unavailable

Award Floor: \$300,000

Eligible Applicants: Unrestricted

**Application Deadline: September 15, 2011**

## **TERRESTRIAL ECOSYSTEM SCIENCE**

The Terrestrial Ecosystem Science program will consider applications on measurements, experiments, modeling and synthesis that provide improved quantitative and predictive understanding of the terrestrial ecosystem that can affect atmospheric greenhouse gas concentration changes and thereby affect the greenhouse gas forcing of climate. The emphasis of this Funding Opportunity Announcement (FOA) is to understand the impacts of, and feedbacks from a changing climate on non-managed terrestrial ecosystems. Authors should pose their research applications in the context of representing terrestrial ecosystem processes in earth system models.

Expected Number of Awards: 15

Estimated Total Program Funding: \$3,000,000

Award Ceiling: \$350,000

Award Floor: \$150,000

Eligible Applicants: All types of domestic entities are eligible to apply, except Federally Funded Research and Development Center (FFRDC) Contractors, and nonprofit organizations described in section 501(c)(4) of the Internal Revenue Code of 1986 that engaged in lobbying activities after December 31, 1995.

**Application Deadline: September 12, 2011**

## **INTERNATIONAL INDUSTRIAL ENERGY EFFICIENCY TRAINING AND DEVELOPMENT**

This funding opportunity announcement (FOA) is directed toward the development of U.S. international training capabilities in energy efficiency and management in key manufacturing sectors worldwide, including the performance of assessments of energy facilities. The successful outcome of this announcement would be the development of this training capability by U.S.-based companies and the accelerated deployment of energy saving and Green House Gas (GHG) emission reduction opportunities. In addition, this accelerated deployment of energy saving and GHG emission reduction opportunities is anticipated to increase the market for state-of-the-art U.S. technologies and services in the countries of interest. Applications should address activities/tasks which target the training of auditors in industrial energy efficiency and adaptations of successful techniques used in the U.S. to energy intensive industries such as aluminum, steel and cement manufacturing.

Expected Number of Awards: 1-2

Estimated Total Program Funding: \$1,000,000

Award Ceiling: \$1,000,000

Award Floor: \$300,000

Eligible Applicants: (1) institutions of higher education; (2) nonprofit and for-profit private entities; (3) State and local governments; and (4) consortia of entities (1) through (3). All types of domestic entities, including DOE/NNSA National Laboratory Contractors, are eligible to apply, except other Federal agencies, non-DOE Federally Funded Research and Development Center (FFRDC) Contractors, and nonprofit organizations described in section 501(c)(4) of the Internal Revenue Code of 1986 that engaged in lobbying activities after December 31, 1995.

**Letter of Intent Deadline: June 8, 2011**

**Application Deadline: June 16, 2011**

## **ATMOSPHERIC AND GEOSPACE SCIENCES POSTDOCTORAL RESEARCH FELLOWSHIPS**

The Division of Atmospheric and Geospace Sciences (AGS) awards Postdoctoral Research Fellowships (PRF) to highly qualified investigators within 3 years of obtaining their PhD to carry out an independent research program. The research plan of each Fellowship must address scientific questions within the scope of AGS disciplines. The program supports researchers for a period of up to 2 years with Fellowships that can be taken to the institution or national facility of their choice. The program is intended to recognize beginning investigators of significant potential, and provide them with experience in research that will broaden perspectives, facilitate interdisciplinary interactions and help establish them in leadership positions within the Atmospheric and Geospace Sciences community.

Expected Number of Awards: 10

Estimated Total Program Funding: \$1,720,000

Award Ceiling: Unavailable

Award Floor: \$172,000

Eligible Applicants: \*Organization Limit: Proposals may only be submitted by the following: - AGS Postdoctoral Research Fellowships are awards to individuals; proposals are submitted directly by the fellowship candidate to NSF. Each candidate must identify one or more sponsoring scientist(s) and host institution(s) in the



proposal. Activities supported by the AGS Fellowship program may be conducted at any appropriate U.S. or foreign host institution. Appropriate institutions include colleges and universities, private nonprofit institutes and museums, government installations and laboratories. \*PI Limit: Applicants must: Be U.S. citizens (or nationals) or legally admitted permanent residents of the United States (i.e., have a green card) at the time of application; Either currently be a graduate student, or have held a PhD degree in a scientific or engineering field for no more than 3 years prior to the award start date

**Application Deadline: February 2, 2012**

### **ISOTOPE PRODUCTION**

The Office of Nuclear Physics (NP), Office of Science (SC), U.S. Department of Energy (DOE), hereby announces its interest in receiving applications for domestic production of stable and radioactive isotopes to support research in a wide variety of fields such as medicine, physics, biology, chemistry, agriculture, ecology, materials science, and national security. The goal of this Funding Opportunity Announcement is to enhance the availability of stable and radioactive isotopes to support research applications.

Expected Number of Awards: 5

Estimated Total Program Funding: \$1,000,000

Award Ceiling: \$330,000

Award Floor: \$200,000

Eligible Applicants: All types of domestic entities are eligible to apply as the lead institution, except other Federal agencies, Federally Funded Research and Development Center (FFRDC) Contractors, and nonprofit organizations described in section 501(c)(4) of the Internal Revenue Code of 1986 that engaged in lobbying activities after December 31, 1995.

**Pre-Application Deadline: June 17, 2011**

**Application Deadline: August 5, 2011**

### **SUNSHOT INITIATIVE: SOLAR HIGH PENETARATION**

On February 4, 2011, the Secretary of the Department of Energy announced the SunShot Initiative. The goal of this Initiative is to make solar energy technologies cost-competitive with other forms of energy by reducing the cost of solar energy systems by about 75% before 2020. Reducing the total installed cost for utility-scale solar electricity to roughly 6 cents per kilowatt-hour (kWhr) without subsidies will result in rapid, large-scale adoption of solar electricity across the United States. Achieving the SunShot goal could enable PV penetration levels as high as 8% by energy production by 2020, 14% by 2030, and 18% by 2050. DOE is requesting information in order to develop a technology roadmap (i.e. multi-year planning) in this area. Sometime in the future, DOE may issue a Funding Opportunity Announcement (FOA) for research in this area to define, evaluate, and test the effects of high concentrations of solar-generated power on electric power systems. Potential projects would develop a comprehensive set of solutions to achieve the goals of the program. These may include modeling, forecasting, technology innovations, new inverter technologies, energy storage, etc. DOE is specifically interested in determining the level of penetration at which technical problems are demonstrated to occur and how these impacts may vary based on distribution feeder

topologies. Respondents are asked to comment on questions in a Request for Information (RFI) to help shape the DOE's multi-year planning and possible future FOAs. Respondents are also encouraged to comment on the value of a possible SunShot High Penetration Solar Deployment FOA, as well as your organization's anticipated interest in participating in such an opportunity.

Expected Number of Awards: Unavailable

Estimated Total Program Funding: Unavailable

Award Ceiling: Unavailable

Award Floor: Unavailable

Eligible Applicants: Unrestricted

**Application Deadline: June 6, 2011**