



New Funding Opportunities in the Fields of Energy and Environment

Compiled by the Minnesota Office of Energy Security
December 31, 2009

DOE: Energy Innovation HUB - Fuels from Sunlight

The Department of Energy will launch three Energy Innovation Hubs in FY2010: Fuels from Sunlight, Energy Efficient Building Systems Design, and Modeling and Simulation for Nuclear Reactors. The Secretary of Energy has identified the problems in these topic areas as presenting the most critical barriers to achieving national energy and climate goals while having proven resistant to solution by conventional Research and Development enterprise structures. In a new Research and Development structure modeled on the Department's successful Bioenergy Research Centers, each Hub will comprise a highly collaborative team, spanning multiple scientific, engineering, and where appropriate, economics, and public-policy disciplines. By bringing together top talent across the full spectrum of Research and Development performers, including universities private industry, non-profits, and National Laboratories, each Hub is expected to become a world-leading Research and Development center in its topical area. The Hubs will seek to rapidly drive energy solutions to their fundamental limits. Each Hub will support cross-disciplinary Research and Development focused on the barriers to transforming its energy technologies into commercially deployable materials, devices, and systems. The ultimate goal of each will be to advance a highly promising area of energy science and technology to the point that the risk level will be low enough for industry to deploy solutions into the marketplace. After nearly 3 billion years of evolution, nature can effectively convert sunlight into energy-rich chemical fuels using the abundant feedstocks of water and carbon dioxide. All fuels used today to power vehicles and create electricity, whether from fossil or biomass resources, are ultimately derived from sunlight. Due March 29, 2010.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50809>

DOE Seeks Input on the Energy Innovation Hub - Modeling and Simulation for Nuclear Reactors program.

This draft Funding Opportunity Announcement (FOA) is issued by the US Department of Energy to solicit input on the Energy Innovation Hub - Modeling and Simulation for Nuclear Reactors program. The draft FOA outlines the planned scope of the Hub program, evaluation criteria, terms and conditions, cost-share requirements, and the process for awarding a cooperative agreement to establish and operate the Modeling and Simulation Hub. This draft FOA provides an opportunity for public review and comment. Input from interested parties will be considered in the development of the final FOA, which DOE expects to release in January 2010. Accordingly, to best ensure consideration, parties wishing to provide comment/input are encouraged to do so as soon as possible, but no later than January 11, 2009. Comments/inputs should be sent via email to minorl@id.doe.gov. NOTE: This document is not a funding opportunity announcement, but is a draft FOA only issued for public information and comment. Any resultant final FOA will be issued on the Grants.gov website at <http://www.grants.gov/> The purpose of the Energy Innovation Hubs will be to assemble the most talented scientists and technologists to focus intense research and development efforts on the critical areas listed above. The Hubs are designed to accelerate the current state-of-the art energy science and technology toward their fundamental limits and support high-risk, high-reward research projects that produce revolutionary changes in how we produce and use energy. Ideally, each Hub will have a central location housing many investigators, who will likely span multiple disciplines. Each Hub may be led by universities, private for-profit or non-profit firms, or government laboratories. Refer to funding opportunity DE-FOA-0000170. Due 01/11/2010.

<https://www.fedconnect.net/FedConnect/MemberHome/Opportunity/OpportunityList.aspx>

EPA: Advanced Methane Recovery

This notice announces the availability of funds and solicits proposals for investigation, survey, study, training, and demonstration projects (eligible projects) that advance international near-term, cost-effective methane recovery and use as a clean energy source, and support the goals of the Methane to Markets Partnership. This funding opportunity is only for international activities in support of the Methane to Markets Partnership. RFP# EPA-OAR-CCD-10-02 - Closing Date: April 15, 2010.

http://www.epa.gov/air/grants_funding.html

DOT/Federal Transit Administration: Urban Circulator

The Federal Transit Administration (FTA) announces the availability of Section 5309 funds for exempt discretionary grants for Urban Circulator Systems which support the Department of Transportation Livability Initiative. This notice invites proposals for urban circulator projects seeking less than \$25,000,000 in Federal Section 5309 assistance that would compete for Section 5309 discretionary funds authorized by 49 U.S.C. 5309(a). The Secretary may make grants under 5309(a) to assist State and local governmental authorities in financing new fixed guideway capital projects including the acquisition of real property, the initial acquisition of rolling stock for the systems, the acquisition of rights-of-way, and relocation. Due Feb 10, 2010. <http://www.grants.gov/search/search.do?mode=VIEW&oppId=50833>

Migratory Bird Conservation in the Upper Midwest

In 2010, the program will focus on the following: 1. Coordinated Bird Monitoring: We seek proposals that advance regional scale bird monitoring priorities as identified through the Midwest Coordinated Bird Monitoring Partnership. Priority will be given to proposals that: (1) Facilitate the flow of bird monitoring information between bird conservation partners and regional nodes to the Avian Knowledge Network; (2) Assess the value of existing networks of bird demographic data and/or design regionally coordinated programs to monitor bird demographics in the context of conservation, management or policy decisions (i.e., productivity, survivorship, bioenergetics, density, migration); (3) Identify bird migration routes and important stopover or wintering sites (including pelagic concentrations in the Great Lakes); and (4) Promote the incorporation of existing grassland bird monitoring data sets into a regional framework that informs management, conservation, and/or policy decisions. Due Jan 20, 2010.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50245>

National Science Foundation: Cooperative Activity with Department of Energy Programs for Education and Human Resource Development

This is a cooperative effort between NSF and the Department of Energy (DoE) Office of Science. To support the continued leadership of the United States in science, technology, engineering, and mathematics (STEM) and the continued development of a competitive, diverse STEM workforce, NSF and DoE are implementing collaboration between the agencies' programs for the development of human resources in STEM. NSF and DoE will support students and faculty from eligible NSF projects (based on competitive Merit Review and availability of funds) who are accepted as participants in one of four DoE initiatives that provide hands-on research opportunities in DoE national laboratories during the summer: Science Undergraduate Research Internships (SULI), Faculty and Student Teams (FaST), Community College Institute of Science and Technology (CCI), and Pre-Service Teacher (PST) Internships. Faculty from eligible NSF projects may submit supplement requests (see related NSF document below for details). Due March 8, 2010. <http://www.grants.gov/search/search.do?mode=VIEW&oppId=50280>

National Science Foundation: Environmental Synthesis Center

This solicitation will establish a new environmental synthesis center to stimulate research, education and outreach at the interface of the biological, geological, and social sciences. The center will foster synthetic, collaborative, cross-disciplinary efforts to understand and predict the complex interactions among ecological populations, communities and ecosystems, the geophysical environment, and human actions and

decisions that underlie global environmental change. It will play a pivotal role in forecasting adaptive responses to environmental change and understanding sudden shifts in dynamic systems. The center will also directly involve policy makers, managers, and conservation efforts, and educate an informed citizenry. The center will be international in its scope, addressing the most pressing challenges posed by global environmental change. The center represents a new effort, based on NSF's substantial investments in ongoing synthesis activities, and is not intended to extend or duplicate these activities. The Biological Sciences Directorate expects this center to lead the next generation of synthesis activities. Preliminary proposal required and due March 24, 2010.

http://www.nsf.gov/pubs/2010/nsf10521/nsf10521.htm?WT.mc_id=USNSF_25

National Science Foundation: Centers of Research Excellence in Science and Technology and HBCU Research Infrastructure for Science and Engineering

The Centers of Research Excellence in Science and Technology (CREST) program makes resources available to enhance the research capabilities of minority-serving institutions through the establishment of centers that effectively integrate education and research. CREST promotes the development of new knowledge, enhancements of the research productivity of individual faculty, and an expanded presence of students historically underrepresented in STEM disciplines. This solicitation requests proposals for: (1) CREST centers; (2) supplements for partnerships applied to existing CREST awards; (3) HBCU Research Infrastructure for Science & Engineering (HBCU-RISE) proposals; (4) supplements for diversity collaboration for projects co-funded with NSF's Small Business Innovation Research and Small Business Technology Transfer (SBIR/STTR) programs, which are administered by NSF's Directorate for Engineering; and (5) new projects in the Directorate for Education and Human Resources track: Innovation through Institutional Integration (I3). Innovation through Institutional Integration (I3) projects enable faculty, administrators and others in institutions to think and act strategically about the creative integration of NSF-funded awards, with particular emphasis on awards managed through programs in the Directorate for Education and Human Resources (EHR), but not limited to those awards. For Fiscal Year 2010, proposals are being solicited in nine EHR programs that advance I3 goals: CREST, GSE, HBCU-UP, ITEST, LSAMP, MSP, Noyce, RDE, and TCUP. Letter of intent required and due Jan 21, 2010.

http://www.nsf.gov/pubs/2010/nsf10519/nsf10519.htm?WT.mc_id=USNSF_25

National Science Foundation: Biomaterials

The Biomaterials Program supports fundamental research at the intersection of the physical, chemical, and biological sciences. Proposals focused on the preparation, characterization, structure-property relationships, and applications of biomaterials are encouraged. Emphasis is on novel design of biomaterials, including bioderived, bioinspired, biomimetic and biocompatible materials, discovery of new phenomena, and the combination of experiment with theory and/or simulation. General areas of interest include, but are not restricted to, self- and directed molecular assemblies, surfaces and interfaces, membranes and vesicles, gels and networks, carriers and drug delivery systems, smart and self-healing systems, tissue culture scaffolds, mineralization, hybrids and composites, multi-functional biomaterials such as photonic and electronic biomaterials, biomaterials for energy harvesting, conversion and storage, and biomaterials for sensors and actuators. Closing dates: Oct 31, 2010 Submission Window Date(s) (due by 5 p.m. proposer's local time): September 01, 2009 - October 31, 2010 September 1 - October 31, Annually Thereafter.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50185>

National Science Foundation: Independent Scientist Award

The purpose of the NIH Independent Scientist Award (K02) is to foster the development of outstanding scientists and enable them to expand their potential to make significant contributions to their field of research. The K02 award provides three, four, or five years of salary support and protected time for newly independent (see IC provisions) scientists who can demonstrate the need for a period of intensive research focus as a means of enhancing their research careers. Each independent scientist career award program must be tailored to meet the individual needs of the candidate. Open until Jan 7, 2013.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50728>

National Science Foundation: GeoScience Education

In FY 2010 and FY 2012, the GeoEd program invites proposals in four main areas: advancing public Earth system science literacy, particularly through strengthening geoscience education in grades K-14 and informal education settings; fostering development and training of the diverse scientific and technical workforce required for 21st century geoscience careers; utilizing modern technologies to facilitate and increase access to geoscience education and/or develop innovative approaches for using geoscience research activities and data for educational purposes; and, establishing regional networks and alliances that bring together scientists, formal and informal science educators, as well as other stakeholders, in support of improving Earth system science education and broadening participation in the geosciences. Proposals focused on basic research that might catalyze discovery and innovation at the frontiers of geoscience learning, education, and evaluation will be considered by the GeoEd Program, but are not viewed as a priority in this solicitation. However, the GeoEd Program expects all proposed project activities to be grounded in current understanding of how students learn and effective STEM education practices. Proposals must include an appropriate evaluation or assessment plan that will help to document project effectiveness and/or impact. The GeoEd Program accepts proposals for pilot or proof-of-concept projects (Track 1) and integrative collaborations (Track 2) , as well as for conferences or workshops related to the mission of the program. Due March 8, 2010.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50579>

National Science Foundation: Proactive Recruitment

The goal of the program in Proactive Recruitment in Introductory Science and Mathematics is to strengthen the nation's scientific competitiveness by increasing the numbers of well-prepared, successful U.S. undergraduate majors and minors in science and mathematics. The program will fund innovative, potentially transformational partnerships between the mathematical sciences and other science or engineering disciplines that widen the cross section of the mathematical sciences to which freshman and sophomore students are exposed and that provide these students increased opportunities for research experiences involving the mathematical sciences. Due March 8, 2010.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50580>

National Science Foundation: Environmental Synthesis Center

This solicitation will establish a new environmental synthesis center to stimulate research, education and outreach at the interface of the biological, geological, and social sciences. The center will foster synthetic, collaborative, cross-disciplinary efforts to understand and predict the complex interactions among ecological populations, communities and ecosystems, the geophysical environment, and human actions and decisions that underlie global environmental change. It will play a pivotal role in forecasting adaptive responses to environmental change and understanding sudden shifts in dynamic systems. The center will also directly involve policy makers, managers, and conservation efforts, and educate an informed citizenry. The center will be international in its scope, addressing the most pressing challenges posed by global environmental change. The center represents a new effort, based on NSF's substantial investments in ongoing synthesis activities, and is not intended to extend or duplicate these activities. The Biological Sciences Directorate expects this center to lead the next generation of synthesis activities. Due Jul 14, 2010.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50820>

National Science Foundation: Materials Processing and Manufacturing

The MPM program supports fundamental research on the interrelationship of materials processing, structure, performance and process control. Analytical, experimental, and numerical studies are supported covering processing methods such as molding, forging, casting, welding, hydroforming, composite layup, and other materials processing approaches. Emphasis is placed on environmentally benign manufacturing and virtual manufacturing. Research leading to the development of novel processes and novel hybrid processing techniques to achieve net shape products and complex multi-scale, multi-functional products with superior quality and performance is also supported. Due February 15, 2010.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=46248>

National Science Foundation: NanoManufacturing

The NM program supports research and education on manufacturing at the nanoscale, and the transfer of research results in nanoscience and nanotechnology to industrial applications. The program emphasizes a systems approach to scale-up of nanotechnology for high rate production, reliability, robustness, yield and cost, and promotes integration of nanostructures to functional micro devices and meso/macro scale systems. Special emphases are on environmental, health, and societal aspects of nanotechnology and nanomanufacturing. Due February 15, 2010

<http://www07.grants.gov/search/search.do?jsessionid=JN3xLn1pyyS4ZWGZ0b77YbDILhLvPS11Qn5SkBnlSRFOhgg5vHP!-1179711943?oppId=46234&mode=VIEW>

National Science Foundation: Geotechnical Engineering

The GTE program supports fundamental research on geotechnical aspects of the civil infrastructure, such as foundation engineering, site characterization, underground construction, tunneling, drilling, and mining engineering. Also included is research on geoenvironmental engineering, geotechnical earthquake engineering that does not involve the use of George E. Brown, Jr. Network for Earthquake Engineering Simulation (NEES) facilities, and geohazards such as tsunamis, landslides, mudslides and debris flows, scour, and erosion. Emphasis is on issues of sustainability and resilience. Due February 15, 2010

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=46240>

National Science Foundation: Proactive Recruitment in Introductory Science and Mathematics

The goal of the program in Proactive Recruitment in Introductory Science and Mathematics is to strengthen the nation's scientific competitiveness by increasing the numbers of well-prepared, successful U.S. undergraduate majors and minors in science and mathematics. The program will fund innovative, potentially transformational partnerships between the mathematical sciences and other science or engineering disciplines that widen the cross section of the mathematical sciences to which freshman and sophomore students are exposed and that provide these students increased opportunities for research experiences involving the mathematical sciences. Due March 8, 2010.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50580>

National Science Foundation: Geoscience Education

In FY 2010 and FY 2012, the GeoEd program invites proposals in four main areas: advancing public Earth system science literacy, particularly through strengthening geoscience education in grades K-14 and informal education settings; fostering development and training of the diverse scientific and technical workforce required for 21st century geoscience careers; utilizing modern technologies to facilitate and increase access to geoscience education and/or develop innovative approaches for using geoscience research activities and data for educational purposes; and, establishing regional networks and alliances that bring together scientists, formal and informal science educators, as well as other stakeholders, in support of improving Earth system science education and broadening participation in the geosciences. Due March 8, 2010. <http://www.grants.gov/search/search.do?mode=VIEW&oppId=50579>

National Science Foundation: Catalysis and Biocatalysis

The Catalysis and Biocatalysis program primarily supports fundamental and innovative applied research on the following topics: Kinetics and mechanisms of important catalyzed chemical reactions as they relate to the production of chemicals, fuels, and specialized materials Characterization of chemical and biochemical phenomena occurring at or near solid surfaces and interfaces Kinetic modeling and theory of heterogeneous, homogeneous, and biocatalysis Fundamental catalytic or biocatalytic studies of the processes for conversion of biomass to fuels and chemicals Synthesis of novel compositions and structures for use in heterogeneous, homogeneous or biocatalysts Electrocatalytic processes having engineering significance or commercial potential, particularly for fuel cell applications Fundamental aspects of reactive

deposition and processing for thin film materials This program promotes multidisciplinary research in all of the above areas. Due March 3, 2010. <http://www.grants.gov/search/search.do?mode=VIEW&oppId=50508>

National Science Foundation: Manufacturing Enterprise Systems

The MES program supports research on design, planning, and control of operations in manufacturing enterprises. Research is supported that impacts the analytical and computational techniques relevant to extended enterprise operations and that offer the prospect of implementable solutions. Topics of interest include analytical and computational tools for planning, monitoring, control, and scheduling of manufacturing and distribution operations, and development of methods for optimization of manufacturing enterprises in the presence of a high degree of uncertainty and risk. Due Feb 16, 2010.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=46235>

National Science Foundation: Fluid Dynamics

The Fluid Dynamics program supports fundamental research and education on mechanisms and phenomena governing fluid flow. Proposed research should contribute to basic understanding; thus enabling the better design; predictability; efficiency; and control of systems that involve fluids. Encouraged are proposals that address innovative uses of fluids in materials development; manufacturing; biotechnology; nanotechnology; clinical diagnostics and drug delivery; sensor development and integration; energy and the environment. Closing date: Mar 03, 2010 Submission Window Date(s) (due by 5 p.m. proposer's local time): February 01, 2010 - March 03, 2010 August 15, 2010 - September 23, 2010.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50502>

National Science Foundation: Fundamental Research Program for Industry/University Cooperative Research Centers

The National Science Foundation encourages the submission of industry-defined fundamental research proposals from NSF Industry/University Cooperative Research Centers (I/UCRC). Industry-defined fundamental research broadens the scientific and engineering understanding beyond the more specific applied research interests of the industries traditionally served by the I/UCRC. Industry participation extends the scope and horizon of center research projects so as to drive innovation with industrially relevant fundamental research projects. Closing date: Feb 17, 2010 February 17, 2010 February 02, 2011 First Wednesday in February, Annually Thereafter.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50272>

National Science Foundation: Power, Controls and Adaptive Networks

The Power, Controls and Adaptive Networks (PCAN) program invests in the design and analysis of intelligent and adaptive engineering networks, including sensing, imaging, controls, and computational technologies for a variety of application domains. The program supports distributed control of multi-agent systems with embedded computation for sensor and adaptive networks. PCAN invests in adaptive dynamic programming, brain-like networked architectures performing real-time learning, neuromorphic engineering, telerobotics, and systems theory. PCAN places emphasis on electric power networks and grids, including generation, transmission and integration of renewable, sustainable and distributed energy systems, such as fuel cells and micro-turbines in large power networks; high power electronics and drives; and understanding of associated regulatory and economic structures. The program also places emphasis on energy scavenging and alternative energy technologies, including solar cells, ocean waves, wind, geothermal, low-head hydro, and the hydrogen economy. Closing date: Feb 07, 2010 Submission windows: January 7 - February 7, Annually September 7 - October 7, Annually.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50237>

National Science Foundation: Ecosystem Science

The Ecosystem Science Cluster supports projects within two programs (see descriptions below): the Ecosystem Studies Program and the Long-Term Ecological Research Program (LTER). Other relevant

funding opportunities are listed below and on DEB Home (see link on left). The Ecosystem Studies Program supports investigations of whole-system ecological processes and relationships across a diversity of spatial and temporal (including paleo) scales in order to advance understanding of: 1) material and energy fluxes and transformations within and among ecosystems, 2) the relationships between structure, including complexity, and functioning of ecosystems, 3) ecosystem dynamics and trajectories of ecosystem development through time, and 4) linkages among ecosystems at different spatial and temporal scales. Research on natural, managed and disturbed ecosystems is supported, including terrestrial, freshwater, wetland, coastal (including salt marsh and mangrove), and human-dominated environments. Closing date: Jan 09, 2010 Full Proposal Target Date: January 9, 2010 January 9, Annually Thereafter Full Proposal Target Date: July 9, 2010 July 9, Annually Thereafter.
<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50229>

National Science Foundation: Energy for Sustainability

The Energy for Sustainability program supports fundamental research and education in energy production, conversion, and storage and is focused on energy sources that are environmentally friendly and renewable. Most world energy needs are currently met through the combustion of fossil fuels. With projected increases in global energy needs, more sustainable methods for energy production will need to be developed, and production of greenhouse gases will need to be reduced. Sources of sustainable energy include: * Sunlight * Wind/Wave * Biomass * Geothermal Hydrocarbons, alcohols and hydrogen are potential energy carriers that can be derived from renewable sources. Research that generates enabling science and technologies for more efficient hydrogen generation and storage is supported by the program. Potential sources of hydrogen include conversion from biomass and from electrolysis, photolysis or thermolysis of water. Due March 3, 2010. <http://www.grants.gov/search/search.do?mode=VIEW&oppId=45813>

National Science Foundation: The Environmental Engineering

The Environmental Engineering program supports fundamental research and educational activities across the broad field it serves. The goal of this program is to encourage transformative research which applies scientific principles to minimize solid, liquid, and gaseous discharges into land, inland and coastal waters, and air that result from human activity, and to evaluate adverse impacts of these discharges on human health and environmental quality. The program fosters cutting-edge scientific research based on fundamental science for identifying, evaluating, and developing new methods and technologies for assessing the waste assimilative capacity of the natural environment and for removing or reducing conventional and emerging contaminants from polluted air, water and soils. The program is based on four types of engineering tools - - measurement, analysis, synthesis, and design. Major areas of interest and activity in the program include: * Developing innovative biological, chemical, and physical treatment processes to remove and degrade pollutants from water and air * Measuring, modeling, and predicting the movement and fate of pollutants in the environment * Developing and evaluating techniques to clean up polluted sites by preserving and enhancing the self-purification ability or waste assimilative capacity of natural environmental systems, such as landfills and contaminated aquifers; restoring the quality of polluted water, air, and land resources, and rehabilitating degraded ecosystems. Along with its sibling environmental programs (Energy for Sustainability, Environmental Implications of Emerging Technologies, and Environmental Sustainability), the program fosters environmental sustainability through pollution control and resource management/conservation, and development of techniques to minimize or avoid generating pollution. Due March 3, 2010. <http://www.grants.gov/search/search.do?mode=VIEW&oppId=45856>

National Science Foundation: Environmental Implications of Emerging Technologies

The Environmental Implications of Emerging Technologies program provides support to develop and test the environmental effects of new technologies. Fundamental and basic research is sought to establish and understand outcomes as a result of the implementation of new technologies such as nanotechnology and biotechnology. The program also supports research on the development and refinement of sensors and sensor network technologies that can be used to measure a wide variety of physical, chemical, and biological properties of interest in characterizing, monitoring, and understanding environmental impacts. The program emphasizes engineering principles underlying technology impacts. Innovative production

processes, waste reduction, recycling, and industrial ecology technologies are of interest. All of these have implications that would be relevant to this program. Current areas of support include: * Understanding and mitigating how new developments in nanotechnology and biotechnology will interact with the environment * Nanotechnology environmental, health, and safety implications and applications * Predictive methodology for the interaction of nanoparticles with the environment and with the human body, including predictive approaches for toxicity * Fate and transport of natural, engineered, and incidental (by-product) nanoparticles * Risk assessment and management of the effect of nanomaterials in the environment * Sensor and sensor network technologies as they relate to the measurement of these environmental implications. Due Mar 03, 2010 Full Proposal Window: February 1, 2010 - March 3, 2010.
<http://www.grants.gov/search/search.do?mode=VIEW&oppId=46228>

National Science Foundation: 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 Topics of interest in Industrial Ecology include advancements in modeling such as life cycle assessment, materials flow analysis, input/output economic models, and novel metrics for measuring sustainable systems. Understanding materials flow and taking advantage of such understanding to substitute less toxic, longer lived materials are important areas for consideration. The effects of substituted materials on waste streams can be explored. Innovations in industrial ecology are encouraged. Engineering tools for estimating costs and ramifications of sustainable development must be developed, tested, and evaluated. In Green Engineering, research is encouraged to advance the sustainability of chemical processes, other manufacturing processes, green buildings, and infrastructure. Many programs in the Engineering Directorate support research in environmentally benign manufacturing or chemical processes. The Environmental Sustainability program supports research that would affect more than one chemical or manufacturing process or that takes a systems or holistic approach to green engineering for infrastructure or green buildings. Due Mar 03, 2010 Full Proposal Window: February 1, 2010 - March 3, 2010.
<http://www.grants.gov/search/search.do?mode=VIEW&oppId=45815>

National Science Foundation: The Environmental Chemical Sciences

The Environmental Chemical Sciences (ECS) Program supports basic research in chemistry that promotes the understanding of natural and anthropogenic chemical processes in our environment. Projects supported by this program enable fundamentally new avenues of basic research and transformative technologies. The program is particularly interested in studying molecular phenomena on surfaces and interfaces in order to understand the inherently complex and heterogeneous environment. Projects utilize advanced experimental, modeling and computational approaches, as well as developing new approaches. Topics include studies of environmental surfaces and interfaces under laboratory conditions, the fundamental properties of water and water solutions important in environmental processes, dissolution, composition, origin and behavior of molecular scale systems under a variety of naturally occurring environmental conditions, chemical reactivity of synthetic nanoparticles and their molecular level interactions with the environment, and application of theoretical models and computational approaches to discover and predict environmental phenomena at the molecular scale. Nov 30, 2009 July 01, 2009 - July 31, 2009 CHE Submission Window Nov 01, 2009 - Nov 30, 2009 CHE Submission Window July 01, 2010 - August 02, 2010 CHE Submission Window Nov 01, 2010 - Nov 30, 2010 CHE Submission Window.
<http://www.grants.gov/search/search.do?mode=VIEW&oppId=48465>

National Science Foundation: The Thermal Transport Processes

The Thermal Transport Processes program supports engineering research aimed at gaining a basic understanding of the microscopic and macroscopic levels of thermal transport phenomena (heat and mass transfer) in energy conversion and conservation, the synthesis and processing of materials, cooling and heating of infrastructure and equipment, the interaction of industrial processes with the environment, the propulsion of air and land-based vehicles, and thermal phenomena in biological and environmental systems. The program supports fundamental research and engineering education in transport processes that are driven by thermal gradients, and manipulation of these processes to achieve engineering goals. Priority is given to insightful investigations of fundamental problems with broad engineering and societal impact, and to novel use of heat and mass transfer principles to meet the engineering needs of the nation. Closing date: Mar 03, 2010 Full Proposal Window: February 1, 2010 - March 3, 2010.
<http://www.grants.gov/search/search.do?mode=VIEW&oppId=45861>

National Science Foundation: Engineering Design and Innovation

The EDI program supports research leading to design theory and to tools and methods that enable implementation of the principles of design theory in the practice of design across the full spectrum of engineered products. The program focus is on gaining an understanding of the basic processes and phenomena underlying a holistic, life-cycle view of design where the total system life-cycle context recognizes the need for advanced understanding of the identification and definition of preferences, analysis of alternatives, effective accommodation of uncertainty in decision-making, and the relationship between data and knowledge in a digitally-supported process. Due Feb 15, 2010.
<http://www.grants.gov/search/search.do?mode=VIEW&oppId=46249>

National Science Foundation: Structural Materials and Mechanics

The SMM program supports fundamental research on the behavior of civil infrastructure materials and the mechanics of structural components in the built environment. Of particular interest is research on structural components consisting of natural and synthetic materials, their response to mechanical, hydrothermal and time-dependent loads, and their impact on life-cycle performance and sustainable development of the civil infrastructure. Closing date: Feb 15, 2010 Full Proposal Window: September 1, 2009 - October 1, 2009 September 1 - October 1, Annually Thereafter Full Proposal Window: January 15, 2010 - February 15, 2010 January 15 - February 15, Annually Thereafter.
<http://www.grants.gov/search/search.do?mode=VIEW&oppId=46242>

National Science Foundation: Hazard Mitigation and Structural Engineering

The HMSE program supports fundamental research on the design and performance of structural systems and on new technologies for improving the behavior, safety, and reliability of structural systems and their resistance to natural hazards such as earthquakes and technological hazards (such as bombs).?? Also supported by the program are innovations in analysis and model-based simulation of structural behavior and response, design concepts that improve structural performance, reliability, resilience and sustainability, structural health monitoring, and applications of new control techniques for structural systems. Closing date: Feb 15, 2010 Full Proposal Window: September 1, 2009 - October 1, 2009 September 1 - October 1, Annually Thereafter Full Proposal Window: January 15, 2010 - February 15, 2010 January 15 - February 15, Annually Thereafter. <http://www.grants.gov/search/search.do?mode=VIEW&oppId=46237>

National Science Foundation: Infrastructure Management and Extreme Events

The IMEE program focuses on the impact of large-scale hazards on civil infrastructure and society and on related issues of preparedness, response, mitigation, and recovery.?? The program supports research to integrate multiple issues from engineering, social, behavioral, political, and economic sciences. ??It supports fundamental research on the interdependence of civil infrastructure and society, development of sustainable infrastructures, and civil infrastructure vulnerability and risk reduction. Current closing date: Feb 15, 2010 Full Proposal Window: September 1, 2009 - October 1, 2009 September 1 - October 1, Annually Thereafter Full Proposal Window: January 15, 2010 - February 15, 2010 January 15 - February 15, Annually Thereafter. <http://www.grants.gov/search/search.do?mode=VIEW&oppId=46239>

National Science Foundation: Polymers

The DMR Polymers Program supports fundamental research and education on polymeric materials. The program portfolio is mainly experimental and highly diverse with components of materials science, chemistry, physics, and related disciplines. While interdisciplinarity is stressed, central goals include advancing the foundations of polymer science through innovative research and education and pushing back the wide horizon of the field. Polymers are studied from the molecular level through the nano-to-macro continuum using fundamental materials-focused scientific approaches. Broad areas addressed include synthesis, molecular assembly, characterization, phase behavior, structure, morphology, and properties. Particular focus is on transformative approaches to innovative materials with superior properties, as well as on fundamental understanding and optimization of structure-property relationships. Closing date: Oct 31, 2010 Submission Window Date(s) (due by 5 p.m. proposer's local time): September 01, 2010 - October 31, 2010 September 1 - October 31, Annually Thereafter.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50236>

National Science Foundation: Population and Community Ecology

The Population and Community Ecology Cluster supports research that advances the conceptual or theoretical understanding of population ecology, species interactions and community dynamics in terrestrial, wetland and freshwater habitats. We encourage projects that integrate theoretical, modeling, and empirical approaches, or that promote synthesis across spatial and temporal scales. The cluster seeks to fund projects that are transformative -- that is, those that will change the conceptual bases of population and community ecology and have broad implications for future research. Proposals that develop research questions within the context of existing theory, consider alternate mechanisms, and design critical tests to distinguish among mechanisms are particularly encouraged, together with those that use contemporary approaches to develop new paradigms. Closing date: Jan 09, 2010 Full Proposal Target Date(s): July 09, 2009 July 9, Annually Thereafter January 09, 2010 January 9, Annually Thereafter.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50238>

National Science Foundation: The Thermal Transport Processes

The Thermal Transport Processes program supports engineering research aimed at gaining a basic understanding of the microscopic and macroscopic levels of thermal transport phenomena (heat and mass transfer) in energy conversion and conservation, the synthesis and processing of materials, cooling and heating of infrastructure and equipment, the interaction of industrial processes with the environment, the propulsion of air and land-based vehicles, and thermal phenomena in biological and environmental systems. The program supports fundamental research and engineering education in transport processes that are driven by thermal gradients, and manipulation of these processes to achieve engineering goals. Priority is given to insightful investigations of fundamental problems with broad engineering and societal impact, and to novel use of heat and mass transfer principles to meet the engineering needs of the nation. Closing date: Mar 03, 2010 Full Proposal Window: February 1, 2010 - March 3, 2010.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=45861>

National Science Foundation: Engineering Design and Innovation

The EDI program supports research leading to design theory and to tools and methods that enable implementation of the principles of design theory in the practice of design across the full spectrum of engineered products. The program focus is on gaining an understanding of the basic processes and phenomena underlying a holistic, life-cycle view of design where the total system life-cycle context recognizes the need for advanced understanding of the identification and definition of preferences, analysis of alternatives, effective accommodation of uncertainty in decision-making, and the relationship between data and knowledge in a digitally-supported process. Due Feb 15, 2010.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=46249>

National Science Foundation: Structural Materials and Mechanics

The SMM program supports fundamental research on the behavior of civil infrastructure materials and the mechanics of structural components in the built environment. Of particular interest is research on structural components consisting of natural and synthetic materials, their response to mechanical, hydrothermal and time-dependent loads, and their impact on life-cycle performance and sustainable development of the civil infrastructure. Closing date: Feb 15, 2010 Full Proposal Window: September 1, 2009 - October 1, 2009 September 1 - October 1, Annually Thereafter Full Proposal Window: January 15, 2010 - February 15, 2010 January 15 - February 15, Annually Thereafter.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=46242>

National Science Foundation: Hazard Mitigation and Structural Engineering

The HMSE program supports fundamental research on the design and performance of structural systems and on new technologies for improving the behavior, safety, and reliability of structural systems and their resistance to natural hazards such as earthquakes and technological hazards (such as bombs).?? Also supported by the program are innovations in analysis and model-based simulation of structural behavior and response, design concepts that improve structural performance, reliability, resilience and sustainability, structural health monitoring, and applications of new control techniques for structural systems. Closing date: Feb 15, 2010 Full Proposal Window: September 1, 2009 - October 1, 2009 September 1 - October 1, Annually Thereafter Full Proposal Window: January 15, 2010 - February 15, 2010 January 15 - February 15, Annually Thereafter. <http://www.grants.gov/search/search.do?mode=VIEW&oppId=46237>

National Science Foundation: Infrastructure Management and Extreme Events

The IMEE program focuses on the impact of large-scale hazards on civil infrastructure and society and on related issues of preparedness, response, mitigation, and recovery.?? The program supports research to integrate multiple issues from engineering, social, behavioral, political, and economic sciences. ??It supports fundamental research on the interdependence of civil infrastructure and society, development of sustainable infrastructures, and civil infrastructure vulnerability and risk reduction. Current closing date: Feb 15, 2010 Full Proposal Window: September 1, 2009 - October 1, 2009 September 1 - October 1, Annually Thereafter Full Proposal Window: January 15, 2010 - February 15, 2010 January 15 - February 15, Annually Thereafter. <http://www.grants.gov/search/search.do?mode=VIEW&oppId=46239>

National Science Foundation: Polymers

The DMR Polymers Program supports fundamental research and education on polymeric materials. The program portfolio is mainly experimental and highly diverse with components of materials science, chemistry, physics, and related disciplines. While interdisciplinarity is stressed, central goals include advancing the foundations of polymer science through innovative research and education and pushing back the wide horizon of the field. Polymers are studied from the molecular level through the nano-to-macro continuum using fundamental materials-focused scientific approaches. Broad areas addressed include synthesis, molecular assembly, characterization, phase behavior, structure, morphology, and properties. Particular focus is on transformative approaches to innovative materials with superior properties, as well as on fundamental understanding and optimization of structure-property relationships. Closing date: Oct 31, 2010 Submission Window Date(s) (due by 5 p.m. proposer's local time): September 01, 2010 - October 31, 2010 September 1 - October 31, Annually Thereafter.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50236>

National Science Foundation: Population and Community Ecology

The Population and Community Ecology Cluster supports research that advances the conceptual or theoretical understanding of population ecology, species interactions and community dynamics in terrestrial, wetland and freshwater habitats. We encourage projects that integrate theoretical, modeling, and empirical approaches, or that promote synthesis across spatial and temporal scales. The cluster seeks to fund projects that are transformative -- that is, those that will change the conceptual bases of population and community ecology and have broad implications for future research. Proposals that develop research questions within the context of existing theory, consider alternate mechanisms, and design critical tests to

distinguish among mechanisms are particularly encouraged, together with those that use contemporary approaches to develop new paradigms. Closing date: Jan 09, 2010 Full Proposal Target Date(s): July 09, 2009 July 9, Annually Thereafter January 09, 2010 January 9, Annually Thereafter.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50238>

National Science Foundation: Integrative Graduate Education and Research Traineeship Program

The Integrative Graduate Education and Research Traineeship (IGERT) program has been developed to meet the challenges of educating U.S. Ph.D. scientists and engineers who will pursue careers in research and education, with the interdisciplinary backgrounds, deep knowledge in chosen disciplines, and technical, professional, and personal skills to become, in their own careers, leaders and creative agents for change. The program is intended to catalyze a cultural change in graduate education, for students, faculty, and institutions, by establishing innovative new models for graduate education and training in a fertile environment for collaborative research that transcends traditional disciplinary boundaries. It is also intended to facilitate diversity in student participation and preparation, and to contribute to a world-class, broadly inclusive, and globally engaged science and engineering workforce. Due Sep 30, 2010.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50886>

National Science Foundation: Integrative Graduate Education and Research Traineeship Program

The Integrative Graduate Education and Research Traineeship (IGERT) program has been developed to meet the challenges of educating U.S. Ph.D. scientists and engineers who will pursue careers in research and education, with the interdisciplinary backgrounds, deep knowledge in chosen disciplines, and technical, professional, and personal skills to become, in their own careers, leaders and creative agents for change. The program is intended to catalyze a cultural change in graduate education, for students, faculty, and institutions, by establishing innovative new models for graduate education and training in a fertile environment for collaborative research that transcends traditional disciplinary boundaries. It is also intended to facilitate diversity in student participation and preparation, and to contribute to a world-class, broadly inclusive, and globally engaged science and engineering workforce. Preliminary proposal required and due Sep 30, 2010. <http://www.grants.gov/search/search.do?mode=VIEW&oppId=50886>

US EPA: Community Action for a Renewed Environment

The U.S. Environmental Protection Agency is making \$2 million available in 2010 to reduce pollution at the local level through the Community Action for a Renewed Environment (CARE) program. CARE is a community-based program that works with county and local governments, tribes, non-profit organizations and universities to help the public understand and reduce toxic risks from numerous sources. EPA will award CARE cooperative agreements in two levels. Level I awards range from \$75,000 to \$100,000 and will help establish community-based partnerships to develop local environmental priorities. Level II awards, ranging from \$150,000 to \$300,000 each, will support communities that have established broad-based partnerships, have identified the priority toxic risks in the community, and are prepared to measure results, implement risk-reduction activities and become self-sustaining. In 2009, EPA's CARE program distributed \$2 million to nine communities. Examples of projects that received grants include addressing waste and storm water issues in Kennett, Mo.; reducing air and water pollution in Holyoke, Mass.; addressing water pollution from coal slurry in Wheeling, W.Va.; reducing radon and other indoor air pollutants in Pueblo, Colo.; and tackling the problem of hazardous waste materials and open dumping in Toksook Bay, Alaska. Since 2005, the grants have reached 68 communities in 34 states and territories. A recent evaluation by the National Association of Public Administrators (NAPA) recognized the CARE program as a solid tested framework for engaging communities and other stakeholders. Applications for the CARE grants are due March 9, 2010. EPA will conduct three Webcasts to answer questions from prospective applicants about the application process on Feb. 2, 23, and 26 from 1:00 p.m. to 3:00 p.m. More information about the grants: <http://www.epa.gov/care>

DOD 2010.1 SBIR Solicitation Includes Fuel Cell Topics

The U.S. Department of Defense (DOD) has issued its 2010.1 Small Business Innovation Research (SBIR) solicitation, which includes fuel cell-related topics such as “Highly Integrated, Highly Efficient Fuel Reformer/Fuel Cell System” and “Energy Storage for Facilities Renewable Energy.” Phase I awards are typically \$70,000 to \$100,000 in size over a period of six to nine months. Successful Phase I projects will be eligible to apply for Phase II funding. The deadline for submitting proposals is January 13, 2010.
<http://www.acq.osd.mil/osbp/sbir/>

U.S. DOE Request for Information and Notice of Pre-Solicitation Workshop for Hydrogen Fuel Cells

The Department of Energy (DOE) is seeking feedback from the research community and relevant stakeholders to assist in the development of a potential FOA for fuel cells and fuel cell systems designed for stationary and transportation applications as well as cross-cutting stack and balance of plant (BOP) component technology. Due Jan 29, 2010.
<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50922>

DARPA: Information in a Photon

The Information in a Photon Broad Agency Announcement seeks proposals addressing the basic science and the associated unifying physical and mathematical principles that govern the information capacity of optical photons, exploiting all relevant physical degrees of freedom. Due Jun 10, 2010.
<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50731>

DARPA: Bioinspired Photonics

The Bioinspired Photonics program goal is to design and fabricate structured materials that will demonstrate either dynamic tunability of the optical response, or sensing capability of organic volatiles, using bioinspired photonic structures capable of operating in the visible and near infrared (NIR). See attached DARPA-BAA-09-71. Due Aug 16, 2010.
<http://www07.grants.gov/search/search.do;jsessionid=J0NnL4RQS81MknPPTx8N0qryWpjGHVbDvks5vjTzhrKkb1yVNnz!-1299818899?oppId=49111&mode=VIEW>

DARPA: Thermal Management System

DARPA is soliciting innovative research proposals in the area of Thermal Management Systems (TMS) for aircraft landing decks. The goal of this effort is to exploit thermal management technologies that incorporate a thermally and functionally stable non-skid surface which meets Navy requirements for application, safety, and performance. Eligible technologies should consist of an integrated Thermal Management System (TMS) that mitigates the thermo-mechanical structural impact of the F-35B engine exhaust plumes. Due may 17, 2010.
<http://www07.grants.gov/search/search.do;jsessionid=J0NnL4RQS81MknPPTx8N0qryWpjGHVbDvks5vjTzhrKkb1yVNnz!-1299818899?oppId=50243&mode=VIEW>

DARPA: Materials with Controlled Microstructural Architecture

DARPA is soliciting innovative multidisciplinary research proposals to develop and demonstrate the capability to develop and fabricate structural materials with radically superior properties than can currently be achieved through architectural control at the appropriate microstructural scales. The Materials with Controlled Microstructural Architecture (MCMA) program seeks the development and demonstration of technologies that will result in structural materials design and fabrication methodologies that are ultimately based on validated architectural design principles at the microstructural level to achieve their superior properties. Due Feb 9, 2010. <http://www.grants.gov/search/search.do?mode=VIEW&oppId=50730>

DARPA: Active Cooling Modules

DARPA is soliciting innovative research proposals in the area of active cooling modules. DoD systems are driving conflicting needs for high performance as well as reduced size and weight. DARPA makes many

investments in new technologies that can improve performance or reduce size and weight. Unfortunately, in many cases, the power consumption of these systems increases with each improvement. As a result, the performance of heat rejection technology remains a key limitation in many applications. The primary goal of this program is the development and demonstration of ideas based on novel materials and structures that can provide tens of degrees of cooling for 100W devices in cm-scale cooling modules with coefficient of performance (COP) of 3 or better. Due April 22, 2010.

<http://www07.grants.gov/search/search.do;jsessionid=J0NnL4RQS81MknPPTx8N0qryWpjGHVbDvksp5vjTzhrKkb1yVNnz!-1299818899?oppId=46985&mode=VIEW>

DARPA: Low-Cost Lightweight Portable Photovoltaics

DARPA is soliciting innovative research proposals in the area of photovoltaic power sources that excel in efficiency, portability, flexibility, durability, and ease of manufacture. See attached DARPA-BAA-09-45. Due April 21, 2010.

<http://www07.grants.gov/search/search.do;jsessionid=J0NnL4RQS81MknPPTx8N0qryWpjGHVbDvksp5vjTzhrKkb1yVNnz!-1299818899?oppId=46962&mode=VIEW>

DARPA: Limits of Thermodynamic Storage (LOTS) of Energy

DARPA is soliciting innovative proposals to develop revolutionary new approaches to portable energy sources. Due April 1, 2010.

<http://www07.grants.gov/search/search.do;jsessionid=J0NnL4RQS81MknPPTx8N0qryWpjGHVbDvksp5vjTzhrKkb1yVNnz!-1299818899?oppId=50270&mode=VIEW>

DARPA: Efficient Linearized All-Silicon Transmitters

DARPA is soliciting innovative research and development (R&D) proposals in the area of Efficient Linearized All-Silicon Transmitter ICs (ELASTx). The goal of this program is to enable monolithic, ultra high power efficiency, ultra high linearity, millimeter-wave, silicon-based transmitter integrated circuits (ICs) for next-generation military microsystems in areas such as radar and communications. Due April 20, 2010.

<http://www07.grants.gov/search/search.do;jsessionid=J0NnL4RQS81MknPPTx8N0qryWpjGHVbDvksp5vjTzhrKkb1yVNnz!-1299818899?oppId=46898&mode=VIEW>

DARPA: Materials with Controlled Microstructural Architecture

DARPA is soliciting innovative multidisciplinary research proposals to develop and demonstrate the capability to develop and fabricate structural materials with radically superior properties than can currently be achieved through architectural control at the appropriate microstructural scales. The Materials with Controlled Microstructural Architecture (MCMA) program seeks the development and demonstration of technologies that will result in structural materials design and fabrication methodologies that are ultimately based on validated architectural design principles at the microstructural level to achieve their superior properties. Due Feb 8, 2010. <http://www.grants.gov/search/search.do?mode=VIEW&oppId=50730>

Air Force: Applied BioSciences Research

The purpose of this effort is to conduct research with the Applied Biotechnology Branch, Biosciences and Performance Division of the Human Effectiveness Directorate of the 711th Human Performance Wing. The Applied Biotechnology Branch's primary research areas are: 1) Nano-Bio Interaction/Effects 2) Bioinformatics 3) Toxicology 4) Predictive Modeling (PD/PBPK) 5) Biomarker Discovery/Assay Development and 6) Molecular Foundations. Innovative research is needed to advance the state-of-the-art in warfighter protection and cognition. In particular, novel concepts are required to capitalize on advances in biotechnology and molecular biology to provide radically new capabilities that not only provide a general public benefit through civilian applications, but also improve warfighter performance and combat effectiveness. Due Jan 15, 2010. <http://www.grants.gov/search/search.do?mode=VIEW&oppId=50371>

DOE: Research in Integrated Assessment Inter-Model Development, Testing and Diagnostics

The Office of Biological and Environmental Research (BER) of the Office of Science (SC), U.S. Department of Energy (DOE), hereby announces its interest in receiving grant applications for Research in Integrated Assessment Inter-Model Development, Testing, and Diagnostics under the Integrated Assessment Research Program (IARP). The IARP, located within the Climate and Environmental Sciences Division (CESD) of BER, supports the DOE mission and the U.S. Global Change Research Program's interests to improve fundamental understanding of the interactions between human and natural systems in climate change, including the central role and implications for energy systems, and to develop the integrated, science-based models and tools that inform national and regional decision-making on options for mitigation and adaptation. In the broadest sense, IARP is concerned with modeling in collective frameworks, the end-to-end processes of climate change and the complex, non-linear interactions among major human and natural systems. To strengthen the scientific foundations upon which Integrated Assessment models are built, DOE is requesting applications for a single, coordinated research effort that will: 1) advance progress on a select set of major scientific challenges in the field of Integrated Assessment that are widely recognized and confronting the major Integrated Assessment modeling teams, 2) advance methods and capabilities for inter-model testing and diagnostics, and 3) enhance capabilities for multi-model, ensemble-like analyses for improved insights in science studies and science-based analyses. Due Mar 1, 2001. <http://www.grants.gov/search/search.do?mode=VIEW&oppId=50604>

DOE Extends Fuel Storage Subsystems RFI Deadline

The U.S. Department of Energy (DOE) has extended the deadline for responses to its Request for Information (RFI) regarding requirements for fuel storage subsystems for early market fuel cell applications, including stationary back-up power, portable power, and mobile applications such as forklifts. DOE seeks responses from all stakeholders, including prospective users and component and system suppliers. The new deadline for responses is January 15, 2010. http://www.hydrogen.energy.gov/news_20091215.html

DOE Seeks Feedback on Hydrogen Storage Characterization Best Practices Update

DOE seeks feedback on a new section of its updated document titled *Recommended Best Practices for the Characterization of Storage Properties of Hydrogen Storage Materials*. The new section of the update covers the subject of measuring capacity. Comments are due by January 31, 2010. http://www.hydrogen.energy.gov/news_20091210-2.html

DOE: Batteries For Electrical Energy Storage In Transportation

The Advanced Research Projects Agency-Energy (ARPA-E) is a new agency of the Department of Energy. ARPA-E was authorized by the America COMPETES Act (PL 110-69) and charged with the mission to fund projects that will develop transformational technologies that reduce America's dependence on foreign energy imports; reduce U.S. energy related emissions, including greenhouse gases; improve energy efficiency across all sectors of the U.S. economy; and ensure that the United States maintains its leadership in developing and deploying advanced energy technologies. Initially funded through the American Recovery and Reinvestment Act (PL 111-5), ARPA-E aims to support the development of high risk/high payoff applied science and technology innovations that will have a positive disruptive impact on the energy landscape. In this topic, ARPA-E seeks to develop a new generation of ultra-high energy density, low-cost battery technologies for long electric range plug in hybrid electric vehicles and electric vehicles (EVs). The development of high energy, low cost batteries represents the critical barrier to wide-spread deployment of EVs, which if achieved would have a profound impact on U.S. oil security, greenhouse gas emissions, and economic growth. The ambitious goals for this program are largely based upon the aggressive long term EV battery goals set forth by the United States Automotive Battery Consortium, a public-private collaboration between the U.S. Department of Energy and leading U.S. automotive companies. If successful, new battery technologies developed under this program will give electrified light-duty vehicles range, performance, lifetime, and cost required to shift transportation energy from oil to the domestically powered U.S. electric grid. ARPA-E's objective is to fund high-risk, high reward research efforts that will

promote leadership in this emerging EV battery market. Due Jan 15, 2010.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50712>

DOE: Electrofuels

ARPA-E is seeking new ways to make liquid transportation fuels - without using petroleum or biomass - by using microorganisms to harness chemical or electrical energy to convert carbon dioxide into liquid fuels. Many methods of producing advanced and cellulosic biofuels are under development to lessen our dependence on petroleum and lower carbon emissions. Most of the methods currently under development involve converting biomass or waste, while there are also approaches to directly produce liquid transportation fuels from sunlight and carbon dioxide. Although photosynthetic routes show promise, overall efficiencies remain low. The objective of this topic is to develop an entirely new paradigm for the production of liquid fuels that could overcome the challenges associated with current technologies. ARPA-E requests innovative proposals which can overcome these challenges through the utilization of metabolic engineering and synthetic biological approaches for the efficient conversion of carbon dioxide to liquid transportation fuels. ARPA-E specifically seeks the development of organisms capable of extracting energy from hydrogen, from reduced earth-abundant metal ions, from robust, inexpensive, readily available organic redox active species, or directly from electric current. Theoretically such an approach could be 10 times more efficient than current photosynthetic-biomass approaches to liquid fuel production. Due Jan 15, 2010. <http://www.grants.gov/search/search.do?mode=VIEW&oppId=50710>

DOE: Innovative Materials and Processes for Advanced Carbon Capture Technology

ARPA-E aims to support the development of high risk/high payoff applied science and technology innovations that will have a positive disruptive impact on the energy landscape. Coal-fired power plants currently generate approximately 50% of the electricity in the United States. While coal is a cheap and abundant resource, the continued reliance upon coal as an energy source could potentially have serious consequences in terms of global warming. The objective of this topic is to fund high risk, high reward research efforts that will revolutionize technologies that capture carbon dioxide from coal-fired power plants, thereby preventing release into the atmosphere. ARPA-E seeks to complement existing DOE efforts in the field of carbon capture, led by the Office of Fossil Energy and National Energy Technology Laboratory, by accelerating promising ideas from the basic research stage towards large-scale demonstrations and ultimately, commercialization. Areas of interest include: low-cost catalysts to enable systems with superior thermodynamics that are not currently practical due to slow kinetics; robust materials that resist degradation from caustic contaminants in flue gas; and advanced capture processes that dramatically reduce the parasitic energy penalties and corresponding increase in the cost of electricity required for carbon capture. Due Jan 15, 2010.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50716>

DOE: Weatherization Assistance Program Training Centers And Programs

The objective of this FOA is to develop new or expand existing weatherization training centers and training programs. DOE will work with the selected entities to develop low-income weatherization training centers or programs that provide accelerated, standardized, and multi-tiered weatherization training. Due Jan 21, 2010. <http://www.grants.gov/search/search.do?mode=VIEW&oppId=50611>

US DOE Advanced Research Program: Innovative Materials & Processes for Advanced Carbon Capture Technologies.

Coal-fired power plants currently generate approximately 50% of the electricity in the United States. While coal is a cheap and abundant resource, the continued reliance upon coal as an energy source could potentially have serious consequences in terms of global warming. The objective of this topic is to fund high risk, high reward research efforts that will revolutionize technologies that capture carbon dioxide from coal-fired power plants, thereby preventing release into the atmosphere. ARPA-E seeks to complement existing DOE efforts in the field of carbon capture, led by the Office of Fossil Energy and National Energy Technology Laboratory, by accelerating promising ideas from the basic research stage towards large-scale

demonstrations and ultimately, commercialization. Areas of interest include: low-cost catalysts to enable systems with superior thermodynamics that are not currently practical due to slow kinetics; robust materials that resist degradation from caustic contaminants in flue gas; and advanced capture processes that dramatically reduce the parasitic energy penalties and corresponding increase in the cost of electricity required for carbon capture. Concept Papers must be received by ARPA-E by January 15, 2010, no later than 5:00PM Eastern Standard Time. <https://arpa-e-foa.energy.gov/>

EPA: COMMUNITY ACTION FOR A RENEWED ENVIRONMENT (CARE) PROGRAM

CARE is a unique community-based, community-driven, multimedia demonstration program designed to help communities understand and reduce risks due to toxic pollutants and environmental concerns from all sources. The CARE grant program works with the eligible entities to help their communities form collaborative partnerships, develop an understanding of the many local sources of toxic pollutants and environmental risks, set priorities, and identify and carry out projects to reduce risks through collaborative action at the local level. CARE's long-term goal is to help communities build self-sustaining, community-based partnerships that will continue to improve human health and local environments into the future. The objective of the CARE grant program is to work collaboratively within the community to investigate the effectiveness of the CARE 4-step process (as described in the CARE brochure at <http://www.epa.gov/air/care/library/2008CAREtrifold.pdf>) which fosters a cross-Agency, multi-media approach to provide greater environmental benefits rather than either non-collaborative or traditional regulatory single media approaches. Due March 9, 2010. http://www.epa.gov/air/grants/care_rfp_12_09.pdf

EPA: 2010 INDOOR ENVIRONMENTS: REDUCING PUBLIC EXPOSURE TO INDOOR AIR POLLUTANTS

This notice announces the availability of funds and solicits proposal packages to fund one healthy schools project resulting in rural and urban schools adopting healthier indoor environmental practices to reduce student and staff exposure to indoor air pollutants; provide asthma awareness training to students, teachers, and parents; assist school administrators to develop a sustainable indoor air quality management plan; and develop a network of collaborative partners to serve as a resource for schools to receive indoor air management assistance. Proposed projects must support demonstration, training, outreach and/or education activities to reduce exposure to indoor air pollutants and yield measurable environmental outcomes. Due Jan 29, 2010. <http://www.grants.gov/search/search.do?mode=VIEW&oppId=50735>

US Dept of Commerce Economic Development Administration: Public Works Program

EDA is soliciting applications for the EDA American Recovery Program under the auspices of PWEDA. Specifically, the FFO pertains to applications for funding under EDA's Public Works and Economic Adjustment Assistance programs only. Under this FFO, EDA will give priority consideration to those applications that will significantly benefit regions "that have experienced sudden and severe economic dislocation and job loss due to corporate restructuring," as stipulated under the Recovery Act. EDA provides financial assistance to distressed communities in both urban and rural regions. Such distress may exist in a variety of forms, including high levels of unemployment, low income levels, large concentrations of low-income families, significant declines in per capita income, large numbers (or high rates) of business failures, sudden major layoffs or plant closures, trade impacts, military base closures, natural or other major disasters, depletion of natural resources, reduced tax bases, or substantial loss of population because of the lack of employment opportunities. EDA's experience has shown that regional economic development to help alleviate these conditions is effected primarily through investments and decisions made by the private sector. Under the EDA American Recovery Program, EDA will help restore, replace and expand economic activity in regions that have experienced sudden and severe economic dislocation and job loss due to corporate restructuring, and prioritize projects that will diversify the economic base and lead to a stronger, more globally competitive and resilient regional economy. Due June 30, 2010. <http://www07.grants.gov/search/search.do?oppId=45786&mode=VIEW>

EPA: Great Lakes Restoration Initiative Request for Proposals

This RFP represents EPA's major competitive grant funding opportunity under the Initiative and is one of several funding opportunities described in the Initiative's Interagency Funding Guide. This RFP, in conjunction with other funding opportunities under the Initiative, will be used to competitively provide funding to eligible entities to address the most significant Great Lakes ecosystem problems and efforts in five major focus areas: • Toxic Substances and Areas of Concern, including pollution prevention and cleanup of the most polluted areas in the Great Lakes. • Invasive Species, including efforts to institute a "zero tolerance policy" toward new invasions. • Nearshore Health and Nonpoint Source Pollution, including a targeted geographic focus on high priority watersheds and reducing polluted runoff from urban, suburban and, agricultural sources. • Habitat and Wildlife Protection and Restoration, including bringing wetlands and other habitat back to life, and the first-ever comprehensive assessment of the entire 530,000 acres of Great Lakes coastal wetlands for the purpose of strategically targeting restoration and protection efforts in a science-based manner. • Accountability, Education, Monitoring, Evaluation, Communication and Partnerships, including the implementation of goal- and results-based accountability measures, learning initiatives, outreach and strategic partnerships. Due Jan 29, 2010.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50364>

USDA New Era Rural Technology Competitive Grants Program

National Institute of Food and Agriculture announces the availability of funding and requests applications for the New Era Rural Technology Competitive Grants Program (RTP) for fiscal year (FY) 2010. RTP grants are for technology development, applied research, and/or training to develop an agriculture-based renewable energy workforce to serve rural communities. Awards will stimulate and enable community colleges and advanced technological centers located in rural areas (Note: see definitions of these terms in Part VIII, E. of the RFA to ensure eligibility) to provide technology development, applied research, and/or training necessary to produce graduates capable of strengthening the Nation's technical, scientific and professional workforce in the fields of bioenergy, pulp and paper manufacturing, and agriculture-based renewable energy resources. Due April 14, 2010.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50214>

USDA Organic Agriculture Research and Extension Initiative

The OREI seeks to solve critical organic agriculture issues, priorities, or problems through the integration of research and extension activities. The purpose of this program is to fund projects that will enhance the ability of producers and processors who have already adopted organic standards to grow and market high quality organic agricultural products. Priority concerns include biological, physical, and social sciences, including economics. The OREI is particularly interested in projects that emphasize research and outreach that assist farmers and ranchers with whole farm planning and ecosystem integration. Projects should plan to deliver applied production information to producers. Fieldwork must be done on certified organic land or on land in transition to organic certification, as appropriate to project goals and objectives. Due Feb 9, 2010.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50276>

USDA: Tribal Colleges Research Agriculture Grants Program

This program was initiated in FY 2000 to assist 1994 Land-Grant Institutions (Tribal Colleges) to conduct agricultural research that addresses high priority concerns of tribal, national, or multistate significance.

Awards are to be made on the basis of a competitive process. Grants shall support investigative and analytical studies in the food and agricultural sciences. Eligible institutions may propose projects in any discipline(s) of the food and agricultural sciences. Due Feb 26, 2010.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50721>

NIH: Academic Research Enhancement Award

The purpose of the Academic Research Enhancement Award (AREA) program is to stimulate research in educational institutions that provide baccalaureate or advanced degrees for a significant number of the Nation's research scientists, but that have not been major recipients of NIH support. These AREA grants

create opportunities for scientists and institutions otherwise unlikely to participate extensively in NIH programs, to contribute to the Nation's biomedical and behavioral research effort. AREA grants are intended to support small-scale health-related research projects proposed by faculty members of eligible, domestic institutions. Due Jan 7, 2013.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50846>

NSWC Issues Pre-solicitation for On-Board Hydrogen Storage & Power Systems

The Naval Surface Warfare Center (NSWC) has issued a pre-solicitation for proposals to replace the batteries in the battery powered fleet of Class II forklifts (30 total) operated at Defense Distribution Center Warner Robins, Georgia (DDWG) with fuel cell powered units. The program objective is to identify, design and complete a 12-month operational demonstration to validate fuel cell power units and to increase the Technology Readiness Levels (TRLs) and Manufacturing Readiness Levels (MRLs) associated with fuel cell power system designs for Department of Defense forklift applications. A secondary objective of the program is to expand and improve hydrogen infrastructure technologies used at DDWG. The solicitation is expected to be available on or about January 15, 2010. Potential vendors are advised to monitor the Crane web site for information about this solicitation. The response date for this solicitation is currently posted as February 16, 2010.

https://www.fbo.gov/index?s=opportunity&mode=form&id=d3cde3f5bb42b48d6ee2639ed5ce729d&tab=core&_cview=1

NOAA SBIR Sub-Topics Include Development of Renewable Energy Sources

The National Oceanic and Atmospheric Administration (NOAA) issued its Small Business Innovation Research (SBIR) solicitation, which includes as a sub-topic "Development of Renewable Alternative Energy Sources," such as tidal/current technology and biofuels from microalgae or macroalgae. Phase I proposal budgets must not exceed \$95,000 and project duration must not exceed six months. If a small business concern has received one or more Phase II awards from any Federal agency in the prior five fiscal years, it may be eligible to apply for a NOAA SBIR Phase II award of up to \$300,000 to \$400,000, dependent on sub-topic. Approximately ten Phase I contracts are expected under this solicitation. The deadline for submitting proposals is January 14, 2010.

https://www.fbo.gov/index?s=opportunity&mode=form&id=b9877e0b080e61f9c7aeca2832848206&tab=core&_cview=0&cck=1&au=&ck=

DOE: Research in Integrated Assessment Inter-Model Development, Testing and Diagnostics

The Office of Biological and Environmental Research (BER) of the Office of Science (SC), U.S. Department of Energy (DOE), hereby announces its interest in receiving grant applications for Research in Integrated Assessment Inter-Model Development, Testing, and Diagnostics under the Integrated Assessment Research Program (IARP). The IARP, located within the Climate and Environmental Sciences Division (CESD) of BER, supports the DOE mission and the U.S. Global Change Research Program's interests to improve fundamental understanding of the interactions between human and natural systems in climate change, including the central role and implications for energy systems, and to develop the integrated, science-based models and tools that inform national and regional decision-making on options for mitigation and adaptation. In the broadest sense, IARP is concerned with modeling in collective frameworks, the end-to-end processes of climate change and the complex, non-linear interactions among major human and natural systems. To strengthen the scientific foundations upon which Integrated Assessment models are built, DOE is requesting applications for a single, coordinated research effort that will: 1) advance progress on a select set of major scientific challenges in the field of Integrated Assessment that are widely recognized and confronting the major Integrated Assessment modeling teams, 2) advance methods and capabilities for inter-model testing and diagnostics, and 3) enhance capabilities for multi-model, ensemble-like analyses for improved insights in science studies and science-based analyses. Due March 1, 2010.

<http://www.grants.gov/search/search.do;jsessionid=9tv2Lp1fnfkyrvMYhdnThb6LvnhOGTZTrTXMqT86xScTDvTQ4jtb!-1179711943?oppId=50604&mode=VIEW>

Plant Feedstock Genomics for Bioenergy: A USDA & DOE Joint Research Funding Opportunity

The U.S. Department of Energy's Office of Science, Office of Biological and Environmental Research (OBER), and the U.S. Department of Agriculture (USDA), National Institute of Food and Agriculture (NIFA), hereby announce their interest in receiving applications for genomics-based research that will lead to the improved use of biomass and plant feedstocks for the production of fuels such as ethanol or renewable chemical feedstocks. Specifically, applications are sought for fundamental research on plants that will improve biomass characteristics, biomass yield, or sustainability. Systems biology approaches to identify genetic indicators enabling plants to be efficiently bred or manipulated, or research that yields fundamental knowledge of the structure, function and organization of plant genomes leading to improved feedstock characterization and sustainability are also encouraged. Due Feb 18, 2010.

<http://www.grants.gov/search/search.do;jsessionid=9tv2Lp1fnfkyrvMYhdnThb6LvnhQGTZTrTXMqT86xScTDvTQ4jtb!-1179711943?oppId=50639&mode=VIEW>

USDA Foreign Ag Services program: Scientific Exchange with China

The Scientific Cooperation Exchange Program with the People's Republic of China (SCEP) supports international exchanges that promote agricultural development and economic growth, and mitigate animal and plant health issues that impede trade. This unique program offers excellent opportunities for U.S. teams of up to 5 members to initiate linkages with potential long-term collaborators at Chinese institutions throughout the People's Republic of China (PRC). Due March 26, 2010.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50703>

Department of Homeland Security: DHS HS-STEM Career Development Grants (CDG)

The Department of Homeland Security (DHS), Science and Technology Directorate (S&T), Office of University Programs (UP) is announcing the fourth annual competition for the Homeland Security Science Technology Engineering and Mathematics (HS-STEM) Career Development Grants (CDG). The CDG program enables U.S. accredited four-year colleges and universities with existing and/or proposed programs in homeland security-related science, technology, engineering or mathematics to award undergraduate scholarships and/or graduate fellowships to qualified students (refer to section IV.C.6.d.2.ii) who intend to pursue homeland security scientific, technology, engineering, or mathematic careers. DHS S&T invites applications to this program from U.S. accredited four-year colleges and universities with bona fide HS-STEM curricula. Due Feb 5, 2010.

<http://www.grants.gov/search/announce.do;jsessionid=nlwJL4vXJn2KVQmPSLVm2CITpQtN1h9tb5hFxlxBjGhPh8kqdnH!-1299818899>

EPA: Source Reduction Assistance Grant Program

EPA annually awards grants and cooperative agreements under the Source Reduction Assistance (SRA) Grant Program to support pollution prevention/source reduction and/or resource conservation projects that reduce or eliminate pollution at the source. The grant program does not support projects that rely on reducing pollution by using recycling, treatment, disposal or energy recovery activities. This solicitation announces that EPA's Regional Pollution Prevention (P2) Program Offices anticipate having up to \$130,000, per region, to issue SRA awards in FY 2010. EPA will issue the awards in the form of grants and/or cooperative agreements. All funding will be awarded and managed by the EPA Regional P2 Program Offices. All of the forgoing estimates are subject to the availability of Congressional appropriations. Due Feb 4, 2010. <http://www.grants.gov/search/search.do?mode=VIEW&oppId=50765>

USABC SEEKS RFPIs FOR HEV/PHEV/EV BATTERY DEVELOPMENT

The United States Advanced Battery Consortium LLC (USABC) is seeking requests for proposal information (RFPIs) for four projects related to advanced battery development for hybrid electric, plug-in hybrid electric and electric vehicles. USABC's four RFPIs, for consideration of contracts that will include a 50 percent minimum cost share by developers, are for 1) development of advanced high performance

batteries for electric vehicle (EV) applications; 2) development of advanced energy storage systems for high-power, lower energy-energy storage system (LEESS) for power-assist hybrid electric vehicle (PAHEV) applications; 3) development of advanced high-performance batteries for plug-in hybrid electric vehicle (PHEV) applications; and 4) a technology assessment of proposed advanced battery technologies for EV applications. The RFPIs for advanced battery development are aimed at developers with electrochemical energy storage technologies that are capable of meeting or approaching the USABC long-term criteria for electric vehicle applications (www.uscar.org/usabc). The RFPI for the Development of Advanced High-Performance Batteries for EV Applications seeks proposal information to re-engage development activity for high energy-to-power-ratio batteries, specifically those which use a carbon-based material (graphitic or otherwise) as the negative electrode active material. The RFPI for the Development of Advanced Energy Storage Systems for High-Power, LEESS for PAHEV Applications seeks proposal information to develop advanced energy storage systems for PAHEV applications. The objective is to design, develop, fabricate, deliver and test advanced storage systems that meet USABC goals. The main technical challenges, which should be addressed to improve automotive market penetration of energy storage systems, are issues such as power density, self-discharge rate and desire to leave the system charged during storage and still meet life expectancy, system complexity and cost targets. The RFPI for the Development of Advanced High-Performance Batteries for PHEV Applications seeks proposal information to continue and extend development of USABC's existing battery development programs, focusing on low-cost, long-life, high-energy and high-power technologies. Finally, the Technology Assessment – EV Applications RFPI seeks proposal information to develop the state of proposed technologies prior to consideration for a USABC Development Program and will require responding developers to have the capability to manufacture 36 cells or modules for testing. The deadline for all of the RFPIs is Friday, Jan. 29, 2010. For complete and detailed information on each of the RFPIs, visit the USABC pages of the United States Council for Automotive Research LLC (USCAR) Web site at www.uscar.org/usabc. Additionally, developers may contact Eric Heim, USABC business manager, at erichheim@lvha.net. http://www.uscar.org/guest/view_team.php?teams_id=12

Measurement Science and Engineering (MSE) Research Grants Programs

The National Institute of Standards and Technology (NIST) announces that the following programs are soliciting applications for financial assistance for FY 2010: (1) the Electronics and Electrical Engineering Laboratory Grants Program; (2) the Manufacturing Engineering Laboratory Grants Program; (3) the Chemical Science and Technology Laboratory Grants Program; (4) the Physics Laboratory Grants Program; (5) the Materials Science and Engineering Laboratory Grants Program; (6) the Building Research Grants and Cooperative Agreements Program; (7) the Fire Research Grants Program; (8) the Information Technology Laboratory Grants Program; (9) the NIST Center for Neutron Research Grants Program; and (10) Center for Nanoscale Science and Technology Grants Program; and (11) the Technology Services Grants Program. Applications for all programs listed in this notice will be considered on a continuing basis. <http://www.grants.gov/search/search.do?mode=VIEW&oppId=50883>

NIST: Precision Measurement Grants Program

The National Institute of Standards and Technology (NIST) announces that the Precision Measurement Grants Program is soliciting applications for financial assistance for FY 2010. The Precision Measurement Grants Program is seeking proposals for significant research in the field of fundamental measurement or the determination of fundamental constants. NIST sponsors these grants and cooperative agreements primarily to encourage basic, measurement-related research in universities and colleges and other research laboratories and to foster contacts between NIST scientists and those faculty members of academic institutions and other researchers who are actively engaged in such work. The Precision Measurement Grants are also intended to make it possible for researchers to pursue new ideas for which other sources of support may be difficult to find. There is some latitude in research topics that will be considered under the Precision Measurement Grants Program. The key requirement is that the proposed project is consistent with NIST's ongoing work in the field of basic measurement science. All applicants must submit an abbreviated proposal based on this Notice. Abbreviated Proposal required and due: February 5, 2010. <http://www.grants.gov/search/search.do?mode=VIEW&oppId=50890>

NIST: Measurement Science and Engineering (MSE) Research Grants Programs

The National Institute of Standards and Technology (NIST) announces that the following programs are soliciting applications for financial assistance for FY 2010: (1) the Electronics and Electrical Engineering Laboratory Grants Program; (2) the Manufacturing Engineering Laboratory Grants Program; (3) the Chemical Science and Technology Laboratory Grants Program; (4) the Physics Laboratory Grants Program; (5) the Materials Science and Engineering Laboratory Grants Program; (6) the Building Research Grants and Cooperative Agreements Program; (7) the Fire Research Grants Program; (8) the Information Technology Laboratory Grants Program; (9) the NIST Center for Neutron Research Grants Program; and (10) Center for Nanoscale Science and Technology Grants Program; and (11) the Technology Services Grants Program. Due Mar 29, 2010.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50883>

Fiscal Year (FY) 2010 Summer Undergraduate Research Fellowship (SURF) NIST Boulder

The SURF NIST Boulder Programs are soliciting applications in the areas of Electronics and Electrical Engineering, Chemical Science and Technology, Physics, Materials Science and Engineering, and Information Technology. The SURF programs will provide an opportunity for the NIST laboratories and the National Science Foundation (NSF) to join in a partnership to encourage outstanding undergraduate students to pursue careers in science and engineering. The program will provide research opportunities for students to work with internationally known NIST scientists, to expose them to cutting-edge research and promote the pursuit of graduate degrees in science and engineering. The SURF NIST Boulder Programs are open to colleges and universities in the United States and its territories with degree granting programs in materials science, chemistry, engineering, computer science, mathematics, or physics. Due Feb 16, 2010.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50881>

FY 2010 Summer Undergraduate Research Fellowship (SURF) – NIST GAITHERSBURG

The SURF NIST Gaithersburg programs are soliciting applications in the areas of Electronics and Electrical Engineering, Manufacturing Engineering, Nanoscale Science and Technology, Chemical Science and Technology, Physics, Materials Science and Engineering/Neutron Research, Building and Fire Research, and Information Technology. The SURF program will provide an opportunity for the NIST laboratories and the National Science Foundation (NSF) to join in a partnership to encourage outstanding undergraduate students to pursue careers in science and engineering. The program will provide research opportunities for students to work with internationally known NIST scientists, to expose them to cutting-edge research and promote the pursuit of graduate degrees in science and engineering. NIST's SURF Gaithersburg Programs are open to colleges and universities in the United States and its territories with degree granting programs in materials science, chemistry, nanoscale science, neutron research, engineering, computer science, mathematics, or physics. Due Feb 16, 2010.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50880>

Dwight David Eisenhower Transportation Fellowship Program

The EISENHOWER GRADUATE FELLOWSHIP (provides funding for the pursuit of Masters or Doctorate Degrees in transportation related discipline. The program objectives are: 1) to attract the nation's brightest minds to the field of transportation, 2) to enhance the careers of transportation professionals by encouraging them to seek advanced degrees, and, 3) to retain top talent in the transportation industry of the United States. The Program is intended to bring innovation and enhance the breadth and scope of knowledge of the entire transportation community in the United States. The Eisenhower Graduate Fellowship Program encompasses all modes of transportation. Due March 12, 2010.

<http://www.grants.gov/search/search.do?mode=VIEW&oppId=50901>

Hydrogen Student Design Contest Now Accepting Team Applications

The 2010 Hydrogen Student Design Contest is now accepting applications by teams of university-level students interested in competing in this year's challenge, with the theme "Designing a Hydrogen

Community.” Key areas to be addressed by teams are Hydrogen Production, Early Markets, and Fueling Stations. The Grand Prize is the opportunity for the team to present its design in a Keynote Presentation slot at the National Hydrogen Association Annual Hydrogen Conference and Expo, and a stipend of up to \$5,000 to cover airfare, meals, hotel accommodations, conference registrations, and other expenses for up to eight team members and their faculty representative. The deadline for team registrations is January 22, 2010. <http://www.hydrogencontest.org/index.asp>

Disney's Grants for Youth Working to Make Environmentally Friendly Communities

[Disney](#) and [Youth Service America](#) have announced Disney's Friends for Change Grants designed to help kids working to make environmentally friendly changes in their communities. The new program encourages kids everywhere to take steps together with their friends to help the planet. The Friends for Change Grants will fund kids' projects that help the environment and will look to engage children ages five to 18 as leaders in their communities. The program will award 150 grants of \$500 each throughout 2010. The grant program is open to schools, organizations, and individuals planning service projects. To be eligible, projects will need to be done any time during 2010 and should include one service or celebratory component on [Global Youth Service Day](#), April 23-25, an annual campaign that mobilizes young people around the world to make a positive impact in their communities. Due Jan 29, 2010. <http://www.ysa.org/grants/announcements/friendsforchange>

The Minnesota Office of Energy Security is requesting proposals for Energy Programs in Commercial and Industrial Buildings

The purpose of these competitive grants is to provide funding for cost effective projects that maximize energy savings, displace fossil fuel energy inputs and reduce the total energy demand of commercial and industrial buildings by developing, implementing and installing energy programs in commercial, industrial and nonprofit facilities. Release Date: Thursday, December 24, 2009

Deadline Date: Friday, February 12, 2011. For more information and to download a copy of the RFP, go to our website www.energy.mn.gov and click on Active Request for Proposal (RFP). If you have questions about this RFP, please contact us at energy.contracts@state.mn.us.

Looking for renewable energy or energy conservation information? The Office of Energy Security website www.energy.mn.gov has information on conservation, efficiency, renewables, and stimulus-funded programs.