

Energy Policy Update

Energy and Environmental News

February 1, 2010



ARIZONA DEPARTMENT
OF COMMERCE

The center for
economic advancement

This newsletter is published by the Arizona Department of Commerce Energy Office and is provided free of charge to the public. It contains verbatim excerpts from international and domestic energy and environment-related publications reviewed by the Education and Community Outreach personnel. For inquiries, call **(602) 771-1143** or toll free **(800) 352-5499**. Compiled and edited by Gloria Castro, Special Projects Coordinator. To register to receive this newsletter electronically, email [Gloria Castro](mailto:Gloria.Castro@azcommerce.com).

For additional program information, access: <http://www.azcommerce.com/Energy/Energy+Policy+Update+%28Monthly+Publication%29.htm>.

Click here to view Grant Opportunities from the American Recovery and Reinvestment Act (ARRA).

FOR YOUR CONVENIENCE, ARIZONA-RELATED TITLES ARE HIGHLIGHTED IN BLUE

ARIZONA

Bill Could Kill Renewable Energy Standard

[Phoenix Business Journal, Jan. 29] Several energy bills are working their way through the Arizona Legislature, but this year's mix includes a measure that could eliminate the state's renewable energy standard. Bills range from one promoting renewable energy districts to another calling for production tax credits. It's a slightly different list from last year, when business leaders backed incentives to lure alternative energy manufacturing companies.

Governor Jan Brewer Awards Stimulus Funds to Arizona School Districts for Energy Efficiency Projects

Administrative Cost Savings Pushes Dollars to the Classroom

[Arizona Governor's Office website, Jan. 29] Phoenix, AZ - Governor Jan Brewer today announced that 25 Arizona school districts will receive American Recovery and Reinvestment Act (ARRA) funds for energy efficiency projects at schools throughout the state. The funding is part of the \$55,447,000 awarded to the Arizona Department of Commerce Energy Office through the State Energy Program (SEP).

Intel to Install Solar on Chandler Complexes

[Associated Press, Jan. 26] Intel Corp. plans to install rooftop solar panels at its Chandler complexes as part of a companywide solar power initiative. The company says photovoltaic panels will be installed on office buildings at its manufacturing complex and its research campus in Chandler. Intel's director of global utilities, Marty Sedler, says the panels will supply only a few percentage points of the building's total electrical use, but that Intel hopes to expand the effort in the future.

Massive Solar Plant Proposed for Havasu

[Kingman Daily Miner, Jan. 28] One of the largest solar power plants in the nation could be built in Mohave County. Needle Mountain Power, LLC has announced it will file an application in February with Western Area Power Administration to build a 1,200-megawatt solar generating facility on 10,000 acres of land north of Interstate 40 and State Route 95. It will replace the proposed 37,000-home Sterling master-planned community. The company has been working on the solar project for the last 18 months, said Project Consulting Engineer Michael Clinton. The Arizona Department of Water Resources had slated nearly 8,500 acre-feet of water for the Sterling community. The Sterling Solar project will use about 10 percent of that water, Clinton said. The plant will also use mostly photovoltaic technology, which requires much less water than a concentrated solar plant such as Albiasa or Hualapai Valley Solar, two plants proposed for the Kingman area

Solar Project Helps Sunshine Acres Live Up To Its Name

[Arizona Republic, Jan. 27] Its name seems to be a perfect fit for solar energy. But hooking Sunshine Acres Children's Home up to the renewable power source is more than a business decision. The home's executives say they take pride in reducing costs and trimming dependency on burning fossil fuels to generate electricity. An underlying motivation, however, reflects a more compelling concern. "We want the children here to have a wonderful planet to live on," said Sean Sloan, the home's executive director. With incentives, rebates and tax credits, Sunshine Acres is embarking on the first phase of a solar energy system that ultimately will power all electrical needs on the 116-acre campus and its 40-plus buildings.

Suntech to Open First U.S. Solar Plant Site in Goodyear

[Arizona Republic, Jan. 28] A Chinese solar giant in September plans to open its first U.S. solar-panel manufacturing plant in Goodyear, bringing about 75 immediate jobs with the possibility of expanding to 250 jobs. Goodyear Mayor James Cavanaugh made the announcement Wednesday, along with Gov. Jan Brewer and officials with Suntech Power Holdings Co., at the Arizona Solar Manufacturing Symposium in Phoenix.

ALTERNATIVE ENERGY AND EFFICIENCY

Wind Power Grows 39% for the Year

[New York Times, Jan. 26] Despite a crippling recession and tight credit markets, the American wind power industry grew at a blistering pace in 2009, adding 39 percent more capacity. The country is close to the point where 2 percent of its electricity will come from wind turbines. While that is still a small share, it is up from virtually nothing a few years ago. Continued growth at such a fast pace could help the nation lower its emissions of the gases that cause global warming. The American Wind Energy Association, in its annual report to be released on Tuesday, said the amount of capacity added last year, 9,900 megawatts, was the largest on record, and was 18 percent above the capacity added in 2008, also a banner year.

White Roofs Do Cool Temps, Study Finds

Model predicts cities would be nearly 1 degree F cooler

[MSNBC.com website, Jan. 28] If every degree Fahrenheit counts in stabilizing the climate, then painting the roofs of city buildings white could offer a significant payoff, according to the first computer modeling study of an idea that's taken hold in cities around the world. "Our research demonstrates that white roofs, at least in theory, can be an effective method for reducing urban heat," Keith Oleson, the lead author of the study and a scientist at the National Center for Atmospheric Research, said in a statement. The idea is being tested in cities like Seattle and Washington, D.C., as well as parts of Europe. And it's been touted by policymakers like U.S. Energy Secretary Steven Chu.

LEGISLATION AND REGULATION

Advocates of Climate Bill Scale Down their Goals

[New York Times, Jan. 26] Washington, D.C. - As they watch President Obama's ambitious health care plan crumble, the advocates of a comprehensive bill to combat global warming are turning their sights to a more modest package of climate and energy measures that they believe has a better chance of clearing Congress this year. Their preferred approach, a cap-and-trade system to curb emissions of climate-changing gases, already faced a difficult road in a bruised and divided Senate. Its prospects grew dimmer after the special election in Massachusetts last week was won by Scott Brown, a Republican who repudiated the federal cap-and-trade proposal in his campaign.

Braley Pushes for Origin Labeling on Gas Pumps

[KCRG.com website, Jan. 26] Des Moines, IA - U.S. consumers should be able to know at the gas pump where the fuel they are about to put in their vehicle came from before they make a purchase, U.S. Rep. Bruce Braley, D-Iowa, said Monday. The 1st District congressman is seeking a federal feasibility study on requiring country of origin labeling for fuels. He told members of the Iowa Renewable Fuels Association he plans to introduce "COOL for Fuels" legislation on Tuesday. "COOL for Fuels is common sense legislation that will create jobs in Iowa, reduce our dependence on foreign oil and continue to move America toward a 21st century economy," he said. The bill would require the federal Department of Energy to conduct a study and implement its recommendations to ensure American consumers have the ability to decide at the gas pump whether they want to purchase

domestic fuel products, such as biofuels produced in Iowa, or gasoline produced in hostile nations with ties to terrorist activities.

EPA Cracks Down on Pollution Spikes Near Roads

[Associated Press, Jan. 25] Washington, D.C. - The Environmental Protection Agency announced Monday that it would control — for the first time — short-lived spikes of an air pollutant common along major roads and linked to respiratory problems. The new national standard sets a one-hour limit for nitrogen dioxide, a gas created by emissions from automobiles, factories and coal-fired power plants that peaks along highways and near cities. Along with the new limit, the EPA is also requiring at least 40 new monitors in cities and along roads to pinpoint which areas would violate the new standard.

ENERGY-GENERAL

Concern About Global Warming Continues to Drop in the U.S

[Environmental News Network, Jan. 28] Concern about global warming among U.S. adults has dropped significantly, a new poll says, with fewer than 50 percent of Americans saying they are "somewhat" or "very worried" — a 13 percent decrease from a poll taken in October 2008. The percentage of Americans who believe global warming is occurring fell 14 percent to 57 percent, and the percentage who think global warming is caused primarily by human activities fell 10 percent to 47 percent, according to the poll funded by the Yale Project on Climate Change and the George Mason University Center for Climate Change Communication. The poll also found that 40 percent of the public now believes there is a lot of disagreement among scientists over whether global warming is occurring.

Obama Announces \$8 Billion for High-Speed Rail Nationwide

[Environmental News Service, Jan. 28] Tampa, FL, President Barack Obama will announce today that the U.S. Department of Transportation is awarding \$8 billion in economic stimulus funding to states to develop America's first nationwide program of high-speed intercity passenger rail service. The announcement covers federal government investments in 13 rail corridors and rail projects in 31 states.

WESTERN POWER

Nevada to Challenge California's Geothermal Energy Supremacy

[Las Vegas Sun, Jan. 25] California is king of American geothermal energy, but Nevada is vying for the crown. In a report released today, the Geothermal Energy Association reported that the Golden State far outstrips any other in terms of geothermal energy output, but for new plants, developers are looking to Nevada. As of August, California had about 2,605 megawatts of geothermal energy production capacity. Nevada, in distant second, has about 448 megawatts. By 2005, California's geothermal energy capacity alone exceeded that of every country in the world. But California's days as the lone superpower of geothermal energy could be numbered. That's because the Silver State is rolling the plants out faster than neighboring states, most of which have less suitable land available and lengthier permitting processes.

New Mexico Utility Outlines Renewable Energy Plan

[Associated Press, Jan. 26] Albuquerque, N.M. - Public Service Co. of New Mexico has come up with a plan for incorporating renewable energy into its portfolio, and it's very different from an initial proposal that sparked a firestorm of criticism from the renewable energy industry, environmentalists and consumer advocates. PNM, the state's largest utility, met a deadline Monday for submitting its renewable energy procurement plan and other documents to the state Public Regulation Commission. The product of six months of meetings and intense negotiations, the plan could lead to nearly 80 megawatts more of solar power -- enough for 26,000 homes -- through expanded incentives for customers who install solar equipment on their property and large-scale solar plants made up of hundreds of thousands of panels at various sites around New Mexico. PNM's initial proposal, submitted to regulators last summer, called for scaling back its solar incentive programs.

Plans for Fast-Charging Stations Raise Concerns Among California Utilities

[New York Times, Jan. 28] Think, the Norwegian electric automaker, announced a deal this week with a California company, AeroVironment, a maker of electric vehicle charging stations, to roll out fast-charging stations that can charge its battery-powered City car to 80 percent capacity in as little as 15 minutes. A conventional charger can take eight or more hours to charge an electric car, depending on the battery. "The development and deployment

of very-fast-charge stations will help speed the electrification of automobiles in the United States and globally,” Richard Canny, Think’s chief executive, said in a statement. But utilities — concerned that fast-chargers could overload the electricity grid — are more cautious.

Spanish Company Plans New Mexico Solar Plant

[Associated Press, Jan. 27] Santa Fe, N.M. -A Spanish company plans to invest \$1 billion to build a large solar energy production plant in New Mexico. Gov. Bill Richardson joined Wednesday with executives of GA-Solar and its parent company, Gestamp Corp., to announce the photovoltaic solar plant. It will cover 2,500 acres near Santa Rosa in eastern New Mexico. The plant will take four years to complete and will produce 300 megawatts of electricity, enough to supply power to 50,000 households a year.

Talks between PNM, Renewable Energy Advocates Fruitful, Utility Delivers Renewable Energy Plan

[Associated Press, Jan. 26] Albuquerque, N.M. - Public Service Co. of New Mexico has come up with a plan for incorporating renewable energy into its portfolio, and it's very different from an initial proposal that sparked a firestorm of criticism from the renewable energy industry, environmentalists and consumer advocates. PNM, the state's largest utility, met a deadline Monday for submitting its renewable energy procurement plan and other documents to the state Public Regulation Commission. The product of six months of meetings and intense negotiations, the plan could lead to nearly 80 megawatts more of solar power -- enough for 26,000 homes -- through expanded incentives for customers who install solar equipment on their property and large-scale solar plants made up of hundreds of thousands of panels at various sites around New Mexico. PNM's initial proposal, submitted to regulators last summer, called for scaling back its solar incentive programs.

Texas Installs the Most Wind Power in '09

[Austin Business Journal, Jan. 25] Texas installed more wind power than any other state last year, according to a report from the American Wind Energy Association today. Last year, the nation as a whole installed more wind-creating facilities than any other year, erecting nearly 10,000 megawatts of new generating capacity, or enough to serve more than 2.4 million homes. Texas reported the highest number of installations, adding 9,410 megawatts. Iowa came in second with 3,670, then California and Washington with 2,794 and 1,980, respectively.

INDUSTRIES AND TECHNOLOGIES

At Washington Auto Show, Carmakers Say Electricity is the Future

[Washington Post, Jan. 27] Some automakers are using the Washington Auto Show, which opens Wednesday, to proclaim that the electrification of automobiles is just around the corner. General Motors said on Tuesday that its Chevrolet Volt, an electric car with extended range via an onboard gas generator, would be launched later this year in three markets, including Washington. Nissan, meanwhile, is highlighting its Leaf, an electric car that the company says will break out of the tiny niche markets for such cars so far. It is expected to go on sale in December.

GM Puts Its Money Into Electric Motor Business

[Reuters, Jan. 26] Detroit, MI - General Motors Co said on Tuesday it will set up a \$246 million facility backed by funding from the U.S. government to build electric motors to power hybrids and possibly pure electric vehicles. About 200 jobs will be created to double the workforce at an expanded GM plant in Baltimore that currently makes transmissions, GM said. It will be the first U.S. electric motor manufacturing plant operated by a major automaker. The move is part of a push by GM and the Obama administration to develop technology for electric cars in the United States and cut into the lead by Asian automakers and suppliers in that potential boom market.

Secretary Chu Announces Closing of \$1.4 Billion Loan to Nissan

Project expected to provide up to 1,300 Jobs in Tennessee

[U.S. Dept. of Energy – EERE website, Jan. 28] Washington D.C.- U.S. Secretary of Energy Steven Chu announced today that the Department of Energy has closed its \$1.4 billion loan agreement with Nissan North America, Inc. to retool their Smyrna, Tennessee factory to build advanced electric automobiles and an advanced battery manufacturing facility. The two projects are expected to create up to 1,300 American jobs and conserve up to 65.4 million gallons of gasoline per year – an amount equal to six times the oil spilled by the Exxon Valdez in 1989.

Solar Startup Teams Up with Battery Maker

[Reuters, Jan. 28] Los Angeles, CA - U.S. solar startup Suniva Inc said on Thursday it would partner with the U.S. unit of Japanese battery company GS Yuasa Corp to develop solar-powered energy storage systems. Financial details of the agreement were not disclosed. Under the deal, Suniva and GS Battery Inc would build renewable energy systems integrating solar power panels and battery storage at various sites in the United States. The move seeks to solve a challenge faced by the emerging renewable energy sector: how to store electricity generated by wind and solar so that the clean power is available and reliable when the wind is not blowing or sun is not shining.

GASOLINE AND DIESEL FUEL

To view Arizona and U.S. Gasoline and Diesel fuel data plus other pertinent oil information click [here](#).
<http://www.azcommerce.com/Energy/MotorFuel/>

GRANTS

The RFPs created or supplemented as a result of the American Recovery and Reinvestment Act (Recovery Act) are identified in the RFP titles.

NIST Research Grants

The National Institute of Standards and Technology (NIST) announces that programs including, but not limited to, are soliciting applications for FY 2010 financial assistance: 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, and 6) The Building Research Grants and Cooperative Agreements Program. Applications considered on a continuing basis. For more info, contact Christopher Hunton at christopher.hunton@nist.gov or go to:

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

Refer to Sol# 2010-MSE-01. (Grants.gov 12/28/09)

Electrofuels - Recovery Act

The U.S. Department of Energy, Advanced Research Projects Agency-Energy (ARPA-E), requests proposals Recovery Act - Electrofuels. Through this RFP, ARPA-E seeks 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. \$30 million expected to be available, 10 awards anticipated. Concept Papers are required and are due 1/15/10, full proposals due early February 2010. For more info, contact ARPA-E@hq.doe.gov or go to: <https://www.fedconnect.net/FedConnect/?doc=DE-FOA-0000206&agency=DOE>.

Refer to Sol# DE-FOA-0000206. (FBO 12/9/09)

Climate Adaptation and Disaster Resilience - Indonesia

The U.S. Agency for International Development, Mission in Indonesia, requests proposals for Climate Adaptation and Disaster Resilience (CADRE). Indonesia is particularly vulnerable to climate change and disasters. CADRE supports projects that address climate change and disasters by efficiently, effectively and sustainably addressing the needs for disaster risk reduction and climate change adaptation together, among vulnerable populations in Indonesia. Multiple awards ranging from \$500K to \$1.5 million anticipated. Concept Papers are due 1/25/10 and 7/26/10. For more info, contact Johanna Gardjito at aps10-005@usaid.gov or go to:

<http://www.grants.gov/search/search.do?mode=VIEW&opId=50515>.

Refer to Sol# APS10-005. (Grants.gov 12/7/09)

Source Reduction Assistance

The U.S. Environmental Protection Agency requests proposals for the Source Reduction Assistance Grant Program, for environmental projects that reduce or eliminate pollution at the source. National areas of interest include projects that encourage greenhouse gas reduction, toxic and hazardous materials reduction, resource conservation, efficient business practices and P2 integration activities. \$1.3 million expected to be available, up to 300 awards anticipated. Responses due 2/4/10. For more info, including Regional contacts and Region-specific areas of interest, go to: <http://www.epa.gov/p2/pubs/grants/srap10.pdf>.

Refer to Sol# EPA-HQ-OPPT-2010-02. (Grants.gov 12/17/09)

Environmental Management Fellowship Program

The U.S. Environmental Protection Agency requests proposals for the National Network for Environmental Management Studies Fellowship Program. This program provides students an opportunity to participate in a fellowship project that is directly related to their field of study. Fellowship categories include: Environmental Policy, Regulation, and Law; Environmental Management and Administration; Environmental Science; and Public Relations and Communications. \$400K expected to be available, up to 40 awards anticipated. Responses due 2/5/10. For more info, go to: <http://www.epa.gov/education/students.html>. Refer to Sol# EPA-EED-10-01. (Grants.gov 11/5/09)

Power, Controls and Adaptive Networks

The National Science Foundation requests proposals for Power, Controls and Adaptive Networks. This program supports distributed control of multi-agent systems with embedded computation for sensor and adaptive networks. This program emphasizes 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 emphasizes energy scavenging and alternative energy technologies, including solar cells, ocean waves, wind, geothermal, low-head hydro, and the hydrogen economy. In addition, the program supports generation and integration in the National Grid (InterGrid), and interdependencies of critical infrastructure in power and communications. Responses due 2/7/10. For more info, contact Radhakishan Baheti at rbaheti@nsf.gov or go to: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13380. Refer to Sol# PD-10-1518. (Grants.gov 11/16/09)

1890 Land Grant Capacity Building

The U.S. Department of Agriculture requests proposals from 1890 Land-Grant Institutions (http://www.csrees.usda.gov/qlinks/partners/state_partners.html), including Tuskegee University and West Virginia State University, for 1890 Institution Education, Research and Extension Capacity Building Grants. This program seeks to build institutional capacity through stimulating the development of high quality education, research and extension programs that will produce a professional work force in the food and agricultural sciences. High priority areas include, but are not limited to: Bio-energy/Biofuel; Sustainable Agriculture; and Global Climate Change. \$35 million expected to be available. Responses due 2/8/10. For more info, contact Ali Mohamed at amohamed@nifa.usda.gov or go to: http://www.nifa.usda.gov/funding/rfas/pdfs/10_1890_capacity.pdf. Refer to Sol# USDA-NIFA-CBGP-002695. (Grants.gov 11/16/09)

Livability Bus Program

The U.S. Department of Transportation, Federal Transit Administration, requests proposals for the FTA Bus and Bus Facilities Livability Initiative. The Livability Bus Program makes funds available to public transit providers to finance capital projects to replace, rehabilitate, and purchase buses and related equipment and to construct bus-related facilities. Project evaluation criteria includes, but is not limited to, a determination of whether the project promotes a more environmentally sustainable transportation system, improves energy efficiency, or reduces greenhouse gases. Applicants are encouraged to provide information regarding the expected use of clean or alternative sources of energy. \$150 million expected to be available. Responses due 2/8/10. For more info, contact Kimberly Sledge at kimberly.sledge@dot.gov or go to: http://www.fta.dot.gov/funding/grants_financing_7829.html. Refer to Sol# FTA-2010-002-TPM. (Grants.gov 12/22/09)

Organic Agriculture Initiative

The U.S. Department of Agriculture requests proposals for the Organic Agriculture Research and Extension Initiative. This program will support projects that enhance the ability of producers and processors who have already adopted organic standards to grow and market high quality organic agricultural products. Projects that emphasize research and outreach that assist farmers and ranchers with whole farm planning and ecosystem integration are of particular interest. \$19 million expected to be available, individual awards NTE \$3 million. Responses due 2/9/10. For more info, contact Mary Peet at mpeet@nifa.usda.gov or go to: <http://www.nifa.usda.gov/funding/rfas/OREI.html>. Refer to Sol# USDA-NIFA-ICGP-002696. (Grants.gov 11/18/09)

Urban Circulator

The U.S. Department of Transportation, Federal Transit Administration, requests proposals for the Urban Circulator Program. This program will support projects such as streetcars, buses, and bus facilities that connect urban destinations and fosters the redevelopment of urban spaces into walkable mixed use, high density environments. \$130 million expected to be available, up to 6 awards anticipated. Responses due 2/10/10. For

more info, contact Elizabeth Day at Elizabeth.Day@dot.gov or go to: <http://edocket.access.gpo.gov/2009/pdf/E9-29245.pdf>. Refer to Sol# FTA-2010-001-TPE. (Grants.gov 12/23/09)

Methane Recovery

The U.S. Environmental Protection Agency requests proposals for Activities that Advance Methane Recovery and Use as a Clean Energy Source. This RFP will support investigation, survey, study, training, and demonstration 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. \$5 million expected to be available, up to 35 awards anticipated. A Notice of Intent to Apply is requested but not required and is due 2/11/10, final proposals due 4/15/10. For more info, contact Henry Ferland at ferland.henry@epa.gov or go to: http://www.epa.gov/air/grants_funding.html. Refer to Sol# EPA-OAR-CCD-10-02. (Grants.gov 12/22/09)

International Development Grants

The U.S. Agency for International Development requests proposals for the Development Grants Program, which supports development activities in the following areas: Climate change adaptation, microenterprise, water and sanitation, and dairy. DGP recipients will be responsible for ensuring achievement of the program objectives in specified countries. Applications should consider Agency priorities in Food Security, Global Climate Change, and Global Engagement with new partners. \$40 million expected to be available, individual awards NTE \$2 million. Responses due 2/12/10. For more info, contact Roderick Watson at rwatson@usaid.gov or go to: <http://www.grants.gov/search/search.do?mode=VIEW&oppld=50806>. Refer to Sol# M-OAA-GRO-EGAS-DGP-10-001. (Grants.gov 12/22/09)

International Development Grants

The U.S. Agency for International Development requests proposals for the Development Grants Program, which supports development activities in the following areas: Climate change adaptation, microenterprise, water and sanitation, and dairy. DGP recipients will be responsible for ensuring achievement of the program objectives in specified countries. Applications should consider Agency priorities in Food Security, Global Climate Change, and Global Engagement with new partners. \$40 million expected to be available, individual awards NTE \$2 million. Responses due 2/12/10. For more info, contact Roderick Watson at rwatson@usaid.gov or go to: <http://www.grants.gov/search/search.do?mode=VIEW&oppld=50806>. Refer to Sol# M-OAA-GRO-EGAS-DGP-10-001. (Grants.gov 12/22/09)

Engineering Design and Innovation

The National Science Foundation requests proposals for Engineering Design and Innovation. 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. Responses due 2/15/10. For more info, contact Christina Bloebaum at cbloebau@nsf.gov or go to: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13340. Refer to Sol# PD 08-1464. (Grants.gov 11/16/09)

Residential Weatherization Grants

The U.S. Department of Energy requests proposals for Weatherization Formula Grants. Prime applicant restricted to agencies responsible for administering the annual Weatherization Assistance Program (WAP) formula allocation. WAP funds are used to increase the energy efficiency of dwellings owned or occupied by low-income persons, reduce their total residential expenditures, and improve their health and safety. WAP assists persons who are particularly vulnerable such as the elderly, persons with disabilities, families with children, high residential energy users, and households with high-energy burden. \$210 million expected to be available, 59 awards anticipated. Response due date dependant on fiscal year end of prime applicant, with range of 2/15/10 – 8/1/10. For more info, including contacts, go to: <https://www.fedconnect.net/FedConnect/?doc=DE-FOA-0000216&agency=DOE>. Refer to Sol# DE-FOA-0000216. (Grants.gov 12/29/09)

Sensors and Sensing Systems

The National Science Foundation requests proposals for Sensors and Sensing Systems. This program supports fundamental research on advanced actuators, sensors, wireless sensor networks, new materials and concepts for sensing applications, power generation and energy supply for sensors and sensing systems. Responses due 2/15/10. For more info, contact Shih Liu at sliu@nsf.gov or go to: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13349. Refer to Sol# PD-08-1639. (Grants.gov 11/16/09)

Structural Materials and Mechanics

The National Science Foundation requests proposals for Structural Materials and Mechanics. This 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. Responses due 2/15/10. For more info, contact Lawrence Bank at lbank@nsf.gov or go to: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13357. Refer to Sol# PD-08-1635. (Grants.gov 11/16/09)

Materials and Surface Engineering

The National Science Foundation requests proposals for Materials and Surface Engineering. This program supports fundamental research leading to a better understanding of the effect of microstructure, surfaces and coatings on the properties and performance of engineering materials, and the ultimate control of these properties through material design. Responses due 2/15/10. For more info, contact Clark Cooper at ccooper@nsf.gov or go to: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13356. Refer to Sol# PD-08-1633. (Grants.gov 11/16/09)

Materials Processing and Manufacturing

The National Science Foundation requests proposals for Materials Processing and Manufacturing. This program supports fundamental research on the interrelationship of materials processing, structure, performance and process control. Responses due 2/15/10. For more info, contact Mary Toney at mtoney@nsf.gov or go to: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13344. Refer to Sol# PD-08-1467. (Grants.gov 11/16/09)

Mechanics of Materials

The National Science Foundation requests proposals for Mechanics of Materials. This program supports fundamental research on solid mechanics including theoretical, analytical, and computational approaches, model-based simulation, and the development of constitutive models. Responses due 2/15/10. For more info, contact Glaucio Paulino at gpaulino@nsf.gov or go to: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13355. Refer to Sol# PD-08-1630. (Grants.gov 11/16/09)

Manufacturing and Construction Machines and Equipment

The National Science Foundation requests proposals for Manufacturing and Construction Machines and Equipment. This program supports fundamental research leading to improved machines and applications for both manufacturing and construction. Key goals are to advance the transition of these industries from skill-based to knowledge-based activities and to develop them as activities with minimal environmental and societal impact. Responses due 2/15/10. For more info, contact George Hazelrigg at ghazelri@nsf.gov or go to: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13346. Refer to Sol# PD-08-1468. (Grants.gov 11/16/09)

Environmental Video Contest

The U.S. Environmental Protection Agency is sponsoring a video contest titled "Our Planet, Our Stuff, Our Choice," that challenges filmmakers to produce short, creative videos that highlight the "Three Rs" of individual consumption: Reduce, Reuse, and Recycle. Entries should be 30 to 60 seconds in length. Award range \$500 to \$2.5K. Videos accepted through 2/16/10. For more info, go to: <http://www.epa.gov/osw/wycd/video.htm>.

Plant Feedstock Genomics for Bioenergy

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. Reference Number: DE-FOA-0000223 Response Due Date: 2/18/2010 8:00:00 PM ES. Use the following link to view this opportunity: <https://www.fedconnect.net/fedconnect?doc=DE-FOA-0000223&agency=DOE>

Energy for Sustainability

The National Science Foundation requests proposals for Energy for Sustainability. This program supports fundamental research and education in energy production, conversion, and storage and is focused on energy sources that are environmentally friendly and renewable. Sources of sustainable energy include: Sunlight,
Arizona Department of Commerce Energy Office, Energy Policy Update

Wind/Wave, Biomass, and Geothermal. Responses due 3/3/10. For more info, contact Gregory Rorrer at grorrer@nsf.gov or go to: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=501026. Refer to Sol# PD-10-7644. (Grants.gov 11/16/09)

Environmental Engineering

The National Science Foundation requests proposals for Environmental Engineering. 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. Responses due 3/3/10. For more info, contact Paul Bishop at pbishop@nsf.gov or go to: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=501029. Refer to Sol# PD-10-1440. (Grants.gov 11/16/09)

Environmental Sustainability

The National Science Foundation requests proposals for Environmental Sustainability. This 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 systems. Research in Environmental Sustainability typically considers long time horizons and may incorporate contributions from the social sciences and ethics. Responses due 3/3/10. For more info, contact Bruce Hamilton at bhamilto@nsf.gov or go to: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=501027. Refer to Sol# PD 10-7643. (Grants.gov 11/16/09)

Environmental Implications of Emerging Technologies

The National Science Foundation requests proposals for Environmental Implications of Emerging Technologies. This program provides support to develop and test the environmental effects of new technologies. The program also supports research on the development and refinement of sensors and sensor network technologies. Responses due 3/3/10. For more info, contact Cynthia Ekstein at acekstein@nsf.gov or go to: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=501030. Refer to Sol# PD-10-1179. (Grants.gov 11/16/09)

Biotechnology, Biochemical, and Biomass Engineering

The National Science Foundation requests proposals for Biotechnology, Biochemical, and Biomass Engineering. This program addresses fundamental problems involved in the processing and manufacturing of products of economic importance by effectively utilizing renewable resources of biological origin and bioinformatics originating from genomic and proteomic information. Responses due 3/3/10. For more info, contact Leon Esterowitz at lesterow@nsf.gov or go to: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=501024. Refer to Sol# PD-10-1491. (Grants.gov 11/16/09)

Biosensing

The National Science Foundation requests proposals for Biosensing. This program supports innovative, transformative, and insightful investigations of fundamental problems with broad long term impact and applications that require novel use of bio-inspired engineering principles and sophisticated devices to meet the engineering and technology needs of the nation. Responses due 3/3/10. For more info, contact Alex Simonian at asimonia@nsf.gov or go to: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503353. Refer to Sol# PD-10-7909. (Grants.gov 11/12/09)

Thermal Transport

The National Science Foundation requests proposals for Thermal Transport Processes. This 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. Responses due 3/3/10. For more info, contact Theodore Bergman at tbergman@nsf.gov or go to: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13367. Refer to Sol# PD-10-1406. (Grants.gov 11/16/09)

Community Action and the Environment

The U.S. Environmental Protection Agency requests proposals for the 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. \$2 million expected to be available, up to 9 awards anticipated. Responses due 3/9/10. For more info, contact Dennis O'Connor at connor.dennis@epa.gov or go to: http://www.epa.gov/air/grants_funding.html. Refer to Sol# EPA-OAR-IO-10-04. (Grants.gov 12/15/09)

Eisenhower Transportation Fellowships

The U.S. Department of Transportation requests proposals for the Eisenhower Graduate Fellowship Program, which provides funding for the pursuit of Masters or Doctorate Degrees in transportation related disciplines. \$900K expected to be available, 76 awards anticipated. Responses due 3/12/10. For more info, contact Henry Murdaugh at Henry.Murdaugh@dot.gov or go to:

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

Refer to Sol# DTFH64-10-RA-00001. (Grants.gov 12/30/09)

Photon Research

The U.S. Department of Defense, Defense Advanced Research Projects Agency, requests proposals for Information in a Photon, for projects that address the basic science and the associated unifying physical and mathematical principles that govern the information capacity of optical photons. Project abstracts due 1/28/10, final proposals due 3/15/10. For more info, contact Mark Neifeld at mark.neifeld@darpa.mil or go to:

<http://www.darpa.mil/dso/solicitations/solicit.htm>. Refer to Sol# DARPA-BAA-10-19. (Grants.gov 12/16/09)

Science, Mathematics and Engineering Mentoring

The National Science Foundation requests proposals for Presidential Awards for Excellence in Science, Mathematics and Engineering Mentoring. This program, administered on behalf of the White House, seeks to identify outstanding individual mentoring efforts or organizational programs designed to enhance the participation of groups underrepresented in science, technology, engineering, and mathematics. It is expected that each award will be used to continue the recognized activities. The nominees must have served in a described mentoring role for at least five years prior to nomination. \$400K expected to be available, up to 16 awards anticipated. Responses due 3/23/10. For more info, contact Daphne Rainey at drainey@nsf.gov or go to:

http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf10520. Refer to Sol# 10-520. (Grants.gov 12/23/09)

Environmental Synthesis Center

The National Science Foundation requests proposals for the Environmental Synthesis Center. The purpose of the Center will be to stimulate research, education and outreach at the interface of the biological, geological, and social sciences. Few challenges require synthesis as urgently as global environmental change, which is proceeding at an unprecedented scope, scale and speed. The Center will be international in scope and foster 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. \$30 million expected to be available, 1 award anticipated. Pre-proposals are required and are due 3/23/10, final proposals due 7/14/10. For more info, contact Saran Twombly at stwombly@nsf.gov or go to:

http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf10521.

Refer to Sol# 10-521. (Grants.gov 12/23/09)

Fuels from Sunlight Hub

The U.S. Department of Energy requests proposals for the Energy for Innovation Hub - Fuels from Sunlight. The purpose of the Hub will be to assemble the most talented scientists and technologists to focus intense research and development efforts on the development of an effective solar energy to chemical fuel conversion system.

The system should operate at an overall efficiency and produce fuel of sufficient energy content to enable transition from bench-top discovery to proof-of-concept prototyping. \$122 million expected to be available, 1 award anticipated. A Letter of Intent is strongly encouraged but not required and is due 1/29/10, final proposals due 3/29/10. For more info, contact Marlene Martinez at marlene.martinez@ch.doe.gov or go to:

<https://www.fedconnect.net/FedConnect/?doc=DE-FOA-0000214&agency=DOE>.

Refer to Sol# DE-FOA-0000214. (Grants.gov 12/22/09)

U.S. DOE Office of Science

The U.S. Department of Energy, Office of Science, announces its continuing interest in receiving grant proposals in areas including, but not limited to: Basic Energy Sciences, Biological and Environmental Research, and Advanced Scientific Computing. Proposals accepted through 9/30/10. For more info, including program-specific contacts, go to: <https://www.fedconnect.net/FedConnect/?doc=DE-FOA-0000179&agency=DOE>.

Refer to Sol# DE-FOA-0000179. (Grants.gov 12/4/09)

Solid State and Materials Chemistry

The National Science Foundation requests proposals for Solid State and Materials Chemistry. This program supports basic research in solid state and materials chemistry comprising the elucidation of the atomic and molecular basis for material development and properties in the solid state from the nanoscale to the bulk. Areas of interest include, but are not limited to: Innovative approaches to design, synthesis, bulk crystal and/or film growth, and characterization of novel organic, inorganic, and hybrid materials, as well as liquid crystal materials

and multi-component material systems exhibiting new phenomena and/or providing new scientific insights into structure/composition/property relationships in the solid state. Responses due 10/31/10. For more info, contact Linda Sapochak at lsapochoa@nsf.gov or go to: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5356. Refer to Sol# PD-09-1762. (Grants.gov 11/18/09)

Special thanks to the Washington State University Extension Energy Program for collecting this information.
