

**INVITATION TO COMMENT:** The public is invited to provide comments on the Draft EIS during the comment period that ends on February 28, 2000. DOE will consider comments received during the comment period in preparation of the Final EIS. Comments received after February 28, 2000 will be considered to the extent practicable.

**FOR FURTHER INFORMATION CONTACT:** Ms. Wendy R. Dixon, EIS Program Manager, M/S 010, U.S. Department of Energy, Office of Civilian Radioactive Waste Management, Yucca Mountain Site Characterization Office, P.O. Box 30307, North Las Vegas, NV 89036-0307, Telephone 1-800-967-3477, Facsimile 1-800-967-0739. Copies of the document may also be requested by telephone (1-800-967-3477) or over the Internet via the Yucca Mountain Project website at <http://www.ympp.gov>, under the listing "Environmental Impact Statement"; the Draft EIS also may be viewed on this website.

Issued in Washington, DC, February 2, 2000.

**Ivan Itkin,**

*Director, Office of Civilian Radioactive Waste Management.*

[FR Doc. 00-2714 Filed 2-7-00; 8:45 am]

BILLING CODE 6450-01-P

## DEPARTMENT OF ENERGY

### Chicago Operations Office, Office of Industrial Technologies; Notice of Solicitation for Financial Assistance Applications for Cooperative Research and Development for Advanced Microturbine Systems

**AGENCY:** Chicago Operations Office, DOE.

**ACTION:** Notice of solicitation availability.

**SUMMARY:** The Department of Energy (DOE) announces its interest in receiving applications for federal assistance. The purpose of this research is to advance the state of development of one or more cost-effective technologies for integration into Advanced Microturbine Systems that will be commercialized and used in power and/or combined heat and power generation. In order to reach this goal, component and subsystem development, testing integration and demonstration of optimized and fully integrated microturbine systems will be performed.

**DATES:** The solicitation document will be available on or about February 25, 2000. Applications are due on or about April 12, 2000. Awards are anticipated by August 15, 2000.

**ADDRESSES:** The solicitation will be available on the internet by accessing the DOE Chicago Operations Office, Acquisition and Assistance Group home page at <http://www.ch.doe.gov/business/acq.htm> under the heading "Current Solicitations", Solicitation No. DE-SC02-00CH11016. Completed applications referencing Solicitation No. DE-SC02-00CH11016 must be submitted to the U.S. Department of Energy, Chicago Operations Office, Communications Center, Building 201, Room 168, 9800 South Cass Avenue, Argonne, IL 60439-4899, ATTN: Tonja L. Stokes, Acquisition and Assistance Group.

**FOR FURTHER INFORMATION CONTACT:** Tonja L. Stokes at 630/252-2136, U.S. Department of Energy, 9800 South Cass Avenue, Argonne, IL 60439-4899, by facsimile at 630/252-5045, or by electronic mail at [tonja.stokes@ch.doe.gov](mailto:tonja.stokes@ch.doe.gov).

**SUPPLEMENTARY INFORMATION:** The Scope of Work covers applied research in five work areas as described below as Tasks 1, 2, 3, 4 and 5. In addition to these tasks, the Scope of Work includes Subtasks A and B. Subtask A will require the participant to provide a report that will identify and quantify the potential technical market for microturbine systems. Subtask B will require the participant to provide a commercialization plan which supports the proposed technological development.

The Tasks represent an increasing progression of maturation stages for technology development. Task 1 involves concept research and development; Task 2 involves subsystem component design and development; Task 3 involves microturbine modifications for integration of advanced technologies; Task 4 involves microturbine system assembly and testing, and Task 5 involves pre-commercial demonstration. Depending on the current maturation of proposed technologies, the work may start at any task if prior work has been performed that would satisfy completion or sufficient progress of the previous task(s). For example, an applicant with an innovative concept but limited development experience for that concept may decide to apply only under Task 1. Whereas, applicants with more developed concepts may elect to bypass the initial tasks. Applications may address any combination or portions of the tasks. While it is not mandatory for applications to address only sequentially numbered tasks (e.g., applying under Tasks 1, 3 and 4 is allowable), there must be a logical

sequence of the tasks to be performed based on the nature of the work to be performed.

The ultimate maturation of technologies will be reached upon the attainment of the solicitation objectives in a pre-commercial demonstration of 8000 hours (Task 5). Although it is the intention of this solicitation to support development of microturbine systems that will so culminate, there also is relevancy in gaining a better understanding of advanced technologies and their impact on microturbines. In such a case, development of a completed commercial system may not be feasible. For example, development may end prior to the maturation state of Task 5, or Task 5 may be scheduled to complete less than the 8000 hours (but more than 4000 hours as discussed below) identified in the solicitation as a goal for commercialization. Regardless of the tasks proposed, applications will raise the maturation level of the concept relative to the solicitation objectives.

Insofar as Subtask A and B are concerned, all participants will complete the program and planning report required by Subtask A, which will become part of the lowest numbered Task proposed. Additionally, participants performing work under Tasks 3, 4 and/or 5 will complete the commercialization plan required by Subtask B as a part of the lowest numbered Task proposed that is equal to or greater than 3.

All work proposed to be performed under an application must be scheduled for completion within the five year life expectancy of this program.

Under Tasks 1 and 2 that follow, the work may be performed with respect to any test device or turbines that could serve as a logical and cost effective intermediate basis for developing a technology for microturbines. However, any such technology developed under Tasks 1 and 2 must have applicability to microturbines.

Under Tasks 3, 4 and 5 that follow, all work must be performed with respect to microturbines and the demonstration required under Task 5 must be performed on a microturbine. In performing this work, one or more such turbines may be used.

Work under all tasks will be enhanced by the participation of an end user. For these tasks, this solicitation encourages the coordination of technical and administrative activities with an end user. Long-term demonstration under Task 5 should be conducted at an end user that is committed by the applicant. We encourage the demonstration to be conducted at an Industry of the Future Company.

*Task 1*—The starting point of this task shall be, as a minimum, a technological concept(s) with prior experimental evidence of its potential for meeting the solicitation objectives. The participant will identify the form, function, and fit of all components necessary to execute the proposed technology. The participant will also develop preliminary designs compatible with the properties of the advanced material system(s). The participant will also develop preliminary designs for the components. Testing on preliminary articles may be done at a scale suitable to confirm the design parameters that were used and to give qualitative and quantitative indications that the components will perform as planned.

*Task 2*—The participant will complete detailed designs of the selected subsystem components. The design process will include the investigations of all process and economic parameters for integrating the selected components into a viable microturbine system. The components will be manufactured and the subsystem will be assembled. Development and testing will be done to verify and optimize the overall approach, to provide operating and control parameters, and to establish allowable microturbine operating ranges, energy efficiency, sensitivity to fuel variability, and other factors affecting the performance and competitiveness of the microturbine system.

*Task 3*—The design of a microturbine will be adapted in parallel to component development to assure compatibility, optimum fit, and functionality. The work under this task will integrate hardware, controls, and operating procedures for startup, steady operation over the usual power range (for example 50% to 100% of rated output), planned changes (such as anticipated shutdown or transitions of operating load), and unexpected changes in power output (such as lost load) and determining such parameters as energy efficiency and emissions.

*Task 4*—The applicant shall design and fabricate a complete microturbine system that utilizes the subsystems components developed under Task 2 or elsewhere. The subsystem components shall exhibit the form, function, and fit compatible with the modified microturbine developed either under Task 3 or elsewhere. The applicant shall prove, either by subsystem rig testing or by demonstrating on a microturbine, the ability of the subsystem components to perform as planned. Such testing shall include those sensors and controllers needed to maintain testing over the design operating range of the turbine.

Test results shall include relationships among performance, efficiency, emissions, temperatures, and all other relevant parameters that quantify and qualify the system for commercial delivery.

The completion of Task 4 would result in the assembly of an advanced industrial gas turbine that incorporates components completed under this task or elsewhere. The advanced industrial gas turbine shall be ready for insertion into a commercial package that is suitable for shipment, installation, and demonstration in the field under Task 5.

*Task 5*—A host site(s) will be selected for demonstration of the microturbine system developed by the completion of Task 4 or elsewhere. The participant will integrate the turbine with the balance of plant equipment that makes the microturbine system compatible with the needs of a specific host site(s). The completion of Task 5 would result in an 8000-hour demonstration of an advanced microturbine that can be reasonably expected to meet one or more project objectives. At a minimum, the demonstration shall comprise 4000 hours of operation at a host site that is compatible with an operating rate of at least 4000 hours per annum.

The applicant will complete a coordinated plan for the demonstration that incorporates the perspectives of all relevant parties, including the host site. The plan will also assign responsibilities on all matters necessary to execute the demonstration plan, such as business arrangements, balance of plant equipment, site construction, site integration, periodic inspections of hardware, visitations of third parties, data acquisition at the host site to verify expected benefits, and obtainment of environmental, construction, operating, and other permits.

In support of the Office of Industrial Technologies and the nation's industries, it is preferred that the demonstration be conducted at an Industry of the Future Company. If it is not feasible to conduct the demonstration at an Industry of the Future Company or if there are valid reasons to do the demonstration elsewhere, a host site other than an Industry of the Future Company may be proposed. Host sites comprising buildings or natural gas and electric utility sites may be relevant to programs of the Office of Energy Efficiency and Renewable Energy, Office of Building and Community Systems, and the Office of Power Technologies respectively. In such cases, the result of the demonstration will be coordinated with these offices as feasible and appropriate by the DOE program manager.

The demonstration shall be representative of significant market segments of the distributed power generation industry. As a result, the successful demonstration at the host site will be expected to exemplify the resolution of the typical barriers (such as technical, environmental, industry acceptance, and control issues related to an interconnection to the existing local utility transmission and distribution grid) that impede the widespread adoption of distributed generation. In this regard, all hours of operation may be accumulated under the demonstration while the host site is interconnected to the existing local utility grid that exists for the routine transmission and distribution of electric power. Accordingly, the balance of plant equipment may be sufficient to generate and condition such electric power, and all hardware may be provided for interconnection to the local utility grid.

*Subtask A*—Subtask A is required for any applicant selected for award and will be performed in conjunction with the lowest numbered task which the participant will do work. The completed report must be received within 90 days of award of the cooperative agreement and will be submitted in accordance with topical report requirements.

With emphasis on the Industries of the Future Companies, but not excluding other applicants, the report will further define completed distributed generation and combined heat and power systems likely to be available at the successful completion of this project. The participant will identify and quantify the potential technical markets for such systems. In areas such as energy efficiency, performance, cost, and emissions, the participant will provide detailed rationale that supports these projections. All barriers such as the lack of uniform grid connection standards that will impact on the technical market will be identified. However, any barriers that are out of the control of the participant shall be deemed not to impact on the projected technical market.

*Subtask B*—Subtask B is required for any applicant selected for award that proposed on Tasks 3, 4, and/or 5 and will be performed in conjunction with the lowest numbered task proposed. The completed report must be received within 180 days of initiation of the lowest numbered Task (3–5) under which the participant will do work. This report will be submitted in accordance with topical report requirements.

The main impetus for this work is the commercial implementation of efficiency, clean, and cost-effective microturbines in distributed generation and combined heat and power system(s). It is essential that a commercialization plan support the proposed technological development. Participants doing work under Tasks 3, 4, or 5 shall complete commercialization plans and strategies for all relevant functions in the commercialization process such as cost-effective manufacturing, marketing, production volumes, and support for the participant's microturbine system. The commercialization plan will emphasize market applications in the Industries of the Future Companies.

As applicants may apply under one or more of the five tasks within the solicitation's Scope of Work, there is a wide range in the number of potential awards and award values. DOE expects to award six (6) to ten (10) cooperative agreements under this solicitation. It is estimated that individual awards will range in value between approximately \$500,000.00 and \$10,000,000.00 of DOE funding and will require recipient cost sharing. A minimum non-federal cost sharing commitment of 30% of the total cost for Tasks 1 and 2, 45% of the total cost for Tasks 3 and 4, and 60% of the total cost for Task 5 is required.

Estimated DOE funding is \$40 million over a five-year period. DOE reserves the right to fund any, all, or none of the applications submitted in response to this solicitation. All awards are subject to the availability of funds.

Any non-profit or for-profit organization or other institution of higher education, or non-federal agency or entity is eligible to apply, unless otherwise restricted by the Simpson-Craig Amendment. In addition, applicants must satisfy the requirements of the Energy Policy Act in order to be eligible for award.

Issued in Argonne, Illinois on February 1, 2000.

**James R. Bieschke,**

*Acquisition and Assistance Group, Acting Group Manager.*

[FR Doc. 00-2796 Filed 2-7-00; 8:45 am]

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## DEPARTMENT OF ENERGY

### Office of Science, Basic Energy Sciences Advisory Committee

**AGENCY:** Department of Energy.

**ACTION:** Notice of Open Meeting.

**SUMMARY:** This notice announces a meeting of the Basic Energy Sciences

Advisory Committee (BESAC). Federal Advisory Committee Act (Public Law 92-463, 86 Stat. 770) requires that public notice of these meetings be announced in the **Federal Register**.

**DATES:** Monday, February 28, 2000, 8:15 a.m. to 5:15 p.m.; Tuesday, February 29, 2000, 8:30 a.m. to 4:30 p.m.; and Wednesday, March 1, 2000, 8:30 a.m. to 12:00 p.m.

**ADDRESS:** Gaithersburg Washingtonian Marriott Center, 9751 Washingtonian Boulevard, Gaithersburg, MD 20878.

**FOR FURTHER INFORMATION CONTACT:** Sharon Long; Office of Basic Energy Sciences; U.S. Department of Energy; 19901 Germantown Road; Germantown, MD 20874-1290; Telephone: (301) 903-5565.

#### SUPPLEMENTARY INFORMATION:

*Purpose of the Meeting:* The purpose of this meeting is to provide advice and guidance with respect to the basic energy sciences research program.

*Tentative Agenda:* Agenda will include discussions of the following:

#### Monday, February 28, 2000

- Welcome and Introduction
- Remarks from Acting Director, Office of Science
- News from Basic Energy Sciences
- President's R&D Focus Areas for FY 2001
- BES Discussion of R&D Focus Areas for FY 2001
- Report of the Neutron Scattering Subpanel
- Update on 4th Generation Synchrotron Light Source Activities

#### Tuesday, February 29, 2000

- Report of the Electron Beam Microcharacterization Center Review Subpanel
- Report of the Advanced Light Source Subpanel
- Brief overviews of BES programs

#### Wednesday, March 1, 2000

- Advisory Committee Discussion of Issues
- Review of Calendar Year 2000 Calendar

*Public Participation:* The meeting is open to the public. If you would like to file a written statement with the Committee, you may do so either before or after the meeting. If you would like to make oral statements regarding any of the items on the agenda, you should contact Sharon Long at 301-903-6594 (fax) or [sharon.long@science.doe.gov](mailto:sharon.long@science.doe.gov) (e-mail). You must make your request for an oral statement at least 5 business days prior to the meeting. Reasonable provision will be made to include the scheduled oral statements on the

agenda. The Chairperson of the Committee will conduct the meeting to facilitate the orderly conduct of business. Public comment will follow the 10-minute rule.

*Minutes:* The minutes of this meeting will be available for public review and copying within 30 days at the Freedom of Information Public Reading Room; 1E-190, Forrestal Building; 1000 Independence Avenue, SW; Washington, DC 20585; between 9:00 a.m. and 4:00 p.m., Monday through Friday, except holidays.

Issued in Washington, D.C. on February 3, 2000.

**Rachel Samuel,**

*Deputy Advisory Committee Management Officer.*

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## DEPARTMENT OF ENERGY

### Office of Energy Efficiency and Renewable Energy

#### Building Energy Codes Program: Workshop on Analysis of Standard 90.1-1999

**AGENCY:** Office of Energy Efficiency and Renewable Energy, Department of Energy.

**ACTION:** Notice of public workshop.

**SUMMARY:** The Department of Energy is in the process of making a determination as to whether ASHRAE/IESNA Standard 90.1-1999 would save energy in commercial buildings. In doing so, we are performing a comparative analysis of the 1989 edition of that standard to the 1999 edition and seeking input on our proposed approach to carrying out that analysis.

**DATES:** The Department will hold a public workshop on February 17, 2000, in Washington, DC. Please send requests to speak at the workshop so that we receive them by 4:00 p.m., February 14, 2000. The Department must also receive ten (10) copies of statements to be given at the public workshop no later than 4:00 p.m., February 15, 2000, and we request that you provide a computer diskette of each statement in WordPerfect™ at that time.

**ADDRESSES:** Please address requests for the proposed methodology for the comparative analysis or requests to make statements at the public workshop and copies of those statements to Brenda Edwards-Jones at the following address: U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, EE-41, 1000 Independence Avenue, SW,