

DEPARTMENT OF ENERGY**Chicago Operations Office, Office of Industrial Technologies; Notice of Solicitation for Financial Assistance Applications for Cooperative Research and Development for Low-Emission Gas Turbines**

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 durable and cost-effective low-emission technologies for integration into Advanced Industrial Gas Turbine Systems used in power generation service. In order to reach this goal, development, subsystem testing, and demonstration of optimized and fully integrated components comprising low-emission technologies must be performed.

DATES: The solicitation document will be available on or about September 1, 1999. Applications are due on or about October 12, 1999. Awards are anticipated by December 31, 1999.

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-SC02-99CH11000. Completed applications referencing Solicitation No. DE-SC02-99CH11000 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: Terry L. Vlasich, Acquisition and Assistance Group.

FOR FURTHER INFORMATION CONTACT: Terry L. Vlasich at 630/252-0954, U.S. Department of Energy, 9800 South Cass Avenue, Argonne, IL 60439-4899, by facsimile at 630/252-5045, or by electronic mail at terry.vlasich@ch.doe.gov.

SUPPLEMENTARY INFORMATION: The fully-developed, demonstrated low-emission system would accomplish the following objectives:

1. A technical potential of controlling NO_x in the exhaust to a level of less than 5 parts-per-million (ppm) by volume when firing with natural gas while simultaneously obtaining acceptable levels of carbon monoxide and unburned hydrocarbons.

2. Consideration for transitioning the technology to back-up fuels as well as alternative biomass-derived fuels, while achieving a substantial reduction in NO_x emissions for these fuels.

3. Durable for at least 8000 hours while otherwise maintaining reliability, availability, and maintainability of the Advanced Industrial Gas Turbine and its component subsystems.

4. A target cost add-on of no more than 10% of the cost of the base turbine.

The Scope of Work for this solicitation includes 5 Task areas described below as Tasks 1, 2, 3, 4 and 5. Tasks 1 and 2 may be performed with respect to any gas turbine, including microturbines. However, work under all tasks must have applicability to an Advanced Industrial Gas Turbine, and Tasks 3, 4 and 5 must be performed on an Advanced Industrial Gas Turbine. All work proposed under an application must be scheduled for completion within the three-year life expectancy of this program. Regardless of the task or tasks to be undertaken, the applicant will integrate an analytical system commensurate with the accuracy, precision, and sensitivity necessary for determining and controlling the ultra-low contents of pollutants expected from this work. Such analytical system may exceed the requirements of any prevailing emissions statute(s).

Task 1—The starting point of this task shall be, as a minimum, a low-emission concept 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 low-emission concept. The participant will also develop preliminary designs for the components. First article components will be constructed and tested 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 low-emission system components. These designs will include the investigations of all process and economic parameters for integrating the selected components into an overall optimized low-emission system. The components will be manufactured and the low-emission system assembled. Development and testing will be done to verify the overall approach, to provide operating and control parameters, and to provide full-scale definition such as allowable turbine operating ranges, sensitivity to fuel variability, and other

factors affecting the performance of the low-emission system.

Task 3—The design of an Advanced Industrial Gas Turbine will be adapted in parallel to the low-emission system development to assure compatibility, optimum fit, and functionality. The work will include the development of a control system that is integrated with the overall operation of the turbine system. The work under this task will integrate hardware, controls, and operating procedures for startup, steady operation over turbines 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).

Task 4—The applicant shall design and fabricate a full-scale, low-emission combustion system that incorporates the scientific and engineering principles and the components necessary for the deployment of the applicant's concept. The low-emission system shall exhibit the form, function, and fit compatible with the modified turbine developed either under Task 3 or elsewhere. The applicant shall prove either by external testing or by demonstration on an actual turbine the ability of the combustion system to achieve less than 5 ppm for the combined total of the oxides of nitrogen. Such testing shall include those sensors and controllers needed to maintain this emission standard over the design operating range of the turbine. Test results shall include relationships among NO_x, combustor outlet temperature, and other relevant parameters, and the simultaneously measured values of carbon monoxide and unburned hydrocarbons. The proof testing shall be based on natural gas fuel. However, it is recognized that the market requires dual fuel capabilities. Such dual fuel capabilities may be considered in the design.

The completion of Task 4 would result in the installation of the low-emission system on an Advanced Industrial Gas Turbine and would qualify the combined low-emission system and gas turbine for shipment, installation, and demonstration in the field under Task 5.

Task 5—The completion of Task 5 would result in the demonstration of a low-emission Advanced Industrial Gas Turbine for 8000 hours. At a minimum, the demonstration shall comprise 4000 hours of operation with natural gas fuel at a host site that is compatible with an operating rate of at least 4000 hours per annum. The starting maturation level of this task shall be equivalent to the combined low-emission system and gas

turbine qualified either by the completion of Task 4 or elsewhere.

The applicant shall 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, and obtainment of environmental, construction, operating, and other permits.

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 accumulated under the demonstration shall be gained while generating electric power.

Additionally, all such hours of operation shall be accumulated while the host site is interconnected to the existing local utility transmission and distribution grid that exists for the routine transmission and distribution of electric power. Accordingly, the balance of plant equipment shall be sufficient to generate and condition such electric power, and all hardware shall be provided for interconnection, transmission, and distribution on the local utility grid. (The sole use of isolation switches shall not be sufficient to meet this requirement.)

DOE expects to award three to six cooperative agreements under this solicitation. It is estimated that individual awards will range in value between approximately \$800,000.00 and \$1,600,000.00 of DOE funding and will require awardee Cost Sharing.

A minimum non-federal cost sharing commitment of 30% of the cost for Task 1 and 2, 45% of Task 3 and 4, and 60% of Task 5 is required. 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. DOE National Laboratory participation as a subcontractor is limited to no more than 30% of the cost of any individual task to be performed.

As applicants may apply under one or more of the five tasks within the solicitation Scope of Work there is a wide range in the number of potential awards and award values.

Estimated DOE funding is \$5 million over the three-year period. DOE reserves the right to fund in whole or in part, any, all, or none of the applications submitted in response to this solicitation. All awards are subject to the availability of funds.

Issued in Argonne, Illinois on August 20, 1999.

James R. Bieschke,

*Director, Acquisition and Assistance Group,
Contracting Officer.*

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DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. ER99-1971-002]

California Independent System Operator Corporation; Notice of Filing

August 20, 1999.

Take notice that on August 6, 1999, the California Independent System Operator Corporation (ISO), tendered for filing an amendment to its compliance filing in the above-referenced docket which included a number of revisions to the ISO Tariff. The ISO states that this filing was submitted in response to certain protests of its initial compliance filing, submitted on July 2, 1999, and in response to the Commission's July 26, 1999 Order, 88 FERC ¶ 61,096 (1999), in the above-referenced docket.

The ISO states that this filing has been served on all parties listed on the official service list in the above-referenced docket.

Any person desiring to be heard or to protest such filing should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 888 First Street, NE, Washington, DC 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). All such motions and protests should be filed on or before September 9, 1999. Protests will be considered by the Commission to determine the appropriate action to be taken, but will not serve to make protestants parties to the proceedings. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public inspection. This filing may also be viewed on the

Internet at <http://www.ferc.fed.us/online/rims.htm> (call 202-208-2222 for assistance).

Linwood A. Watson, Jr.,

Acting Secretary.

[FR Doc. 99-22139 Filed 8-25-99; 8:45 am]

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DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. CP87-203-007]

CNG Transmission Corporation; Notice of Site Visit

August 20, 1999.

On August 31, 1999, the Office of Pipeline Regulation staff will conduct a site visit of proposed and constructed facilities with representatives of CNG Transmission Corporation, of the Tioga Expansion Project in Tioga County, Pennsylvania.

All interested parties may attend. Those planning to attend must provide their own transportation.

For further information, please contact Paul McKee at (202) 208-1088.

Linwood A. Watson, Jr.,

Acting Secretary.

[FR Doc. 99-22142 Filed 8-25-99; 8:45 am]

BILLING CODE 6717-01-M

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. ER99-4016-000]

Mobil Energy Services Co., L.L.C.; Notice of Filing

August 20, 1999.

Take notice that on August 6, 1999, the above-mentioned power marketer/or public utility tendered for filing quarterly reports with the Commission in above referenced proceedings for information only. This filing is available for public inspection and copying in the Public Reference Room or on the web at www.ferc.fed.us/online/rims.htm for viewing and downloading (call 202-208-2222 for assistance).

Any person desiring to be heard or to protest such filing should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 888 First Street, N.E., Washington, D.C. 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). All such motions and protests should be filed on or before