

Memorandum

To: Contracts Office

Date: 6/1/2010

Telephone: 916-654-4037

From: **California Energy Commission ERDD/PIER**
1516 Ninth Street
Sacramento CA 95814-5512

Subject: Novel Controls for Time-Dependent Economic Dispatch of Combined Cooling, Heating, and Power in Light Industrial, Commercial, and Institutional Markets with High Temperature Fuel Cells and Gas Turbines

A. Contractor: The Regents of the University of California, Irvine

B. Contract Manager and date Contract Managers Training was obtained:
Rizaldo Aldas CCM Training date: 9/29/2009

C. Term of Contract:
8/30/2010 to 4/30/2015

D. Amount funded by this contract or amendment and funding source:
\$300,000.00 PIER-E

E. Purpose of Contract and if requesting amendment, reason for amendment:

This project will develop and demonstrate novel algorithms and control system technology for optimal economic use of clean combined cooling heating and power systems in light industrial, commercial, and institutional applications. The cost-share funding will support the data acquisition, development and testing of novel control strategies through the following tasks:

- Develop first principles dynamic physical models of emerging CCHP technologies,
- Support installation of equipment to measure dynamic building loads and the dynamic performance characteristics of emerging CCHP technologies,
- Support field installation and performance verification of the novel controls in a CCHP system, and
- Support extension of the control strategies to emerging CCHP systems and technology.

F. Scope of Work - attach as Exhibit A - Scope of Work (includes deliverables and due dates):

G. Budget Detail - attach as Exhibit B - Budget Detail

1. What payment method are we paying Contractor? Choose all that apply

a. Reimbursement in arrears based on:

- Itemized Monthly Itemized Quarterly Flat Rate
 One-time Payment

b. Advance Payment Receiving Funds from other entity
 Other, explain:

2. Do you anticipate retention to be released prior to the end of the Contract? If so, identify in Budget Detail what tasks are separate and distinct.

Yes No

H. Selection Process Used:

- Solicitation using RFP, RFQ, IFB or PON
- Sole Source (attach CEC-96 Non-Competitive Bid Request)
- Other government entity (i.e., state agency, federal or local government, air/water/school district)
- Other (explain)

I. Survey of Prior Work: See CEC 30

J. Civil Service Considerations:

Public Resources Code 25620, et seq. authorizes the Commission to contract for the subject work.

K. Information Technology Expenditures:

None

L. California Environmental Quality Act (CEQA) Compliance:

1) Is contract considered a "Project" under CEQA?

Yes No

If yes, skip to question 2.

If no, please complete the following (Public Resources Code (PRC) 21065 and 14 California Code of Regulations (CCR) 15378):

Explain why is contract not considered a "Project"?

Contract will not cause a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment because contract involves: - developing models and controls strategy, verifying model performance, and, based on the model results, developing controls platform that will be integrated in an existing combined cooling, heat and power facility. This project will not involve constructing new power generation facility.

2) If contract is considered a "Project" under CEQA:

a) Contract **IS** exempt
Check the appropriate exemption box and fill in the section number of the exemption.

Statutory Exemption. List PRC and/or CCR section number: _____

Categorical Exemption. List CCR section number: _____

Common Sense Exemption. 14 CCR 15061(b)(3)

Explain reason why contract is exempt under the above section:

b) Contract **IS NOT** exempt. The Contract Manager needs to consult with the Energy Commission attorney assigned to your division and the Siting Office regarding a possible Initial Study.

M. Disabled Veteran Business Participation: Not Applicable.

- Meets DVBE Requirements
 Requesting DVBE Exemption (attach CEC-95 DVBE memo)

N. Is Contractor a certified Small Business?

- Yes No

O. Is Contractor subcontracting **any** services? If so, list them and identify if they are a certified Small Business?

- Yes No

P. Miscellaneous Contract Information:

- 1) Will there be Work Authorizations? Yes No
- 2) Is the contractor providing confidential information? Yes No
- 3) Is the contractor going to purchase equipment? Yes No
- 4) Will progress reports be required? If so, check one of the following:
 Monthly Quarterly Other (please describe)

Progress reports are required, see Scope of Work, Exhibit A, attached.

- 5) Will a final report be required? Yes No
- 6) Are resumes attached for all consultants Yes No
- 7) Is the contract, with amendments, longer than a year? If so, why?

The Department of General Services has agreed to give the Commission blanket authority to execute multi-year contracts to support the Commission's RD&D Programs.

8) What basis did you use to determine that the price, or rate, is reasonable?

The rates charged in this contract by the University of California, are U.C. published rates and the overhead rates are the negotiated rates with the Energy Commission.