

**CALIFORNIA ENERGY COMMISSION**

1516 NINTH STREET  
SACRAMENTO, CA 95814-5512  
www.energy.ca.gov



**NOTICE OF PROPOSED AWARDS**  
**Combined Heat and Power and Combined Cooling, Heating, and Power Systems**  
**Grant Solicitation PON-08-005**  
**December 1, 2009**

On December 10, 2008 the California Energy Commission (Energy Commission) released a Program Opportunity Notice (PON) and a Competitive Grant Solicitation Application Package, PON-08-005, for the Combined Heat and Power and Combined Cooling, Heating, and Power Systems (CHP/CCHP) Research, Development & Demonstration (RD&D) Grant Solicitation under the Advanced Generation Subject Area of the Public Interest Energy Research (PIER) Program. This Grant Solicitation was an offer to fund RD&D projects that will advance the science, technology and market penetration of CHP/CCHP systems which are closely integrated with prime movers. The solicitation announced that an estimated amount of \$3,800,000 in funding was available.

In accordance with the 2008 Application Package for the CHP/CCHP RD&D Grant Solicitation, each proposal was screened for completeness and reviewed by the Energy Commission staff. Then, the Energy Commission's Technical Advisory Committee (TAC) reviewed, evaluated, and scored applications submitted in response to the Solicitation using the criteria prescribed in the Application Package. Based on the TAC's scores and assessment of potential beneficial projects, the TAC recommended an augmentation for additional awards. As a result, the Commission's RD&D Committee made its proposed funding recommendations, which increases the number of awards for this CHP/CCHP RD&D Grant Solicitation. The RD&D Committee proposes to award a total of \$9,051,412 to the top eight passing projects for this solicitation. This Notice of Proposed Awards is hereby issued pursuant to those recommendations.

The attached Table, "Notice of Proposed Awards and Results of Submitted Proposals", identifies each applicant selected to receive funding, the project title, the amount of recommended funding by the RD&D Committee, and scoring information. Funding of the CHP/CCHP RD&D Grant Solicitation projects is contingent upon the approval of these projects during a Commission Business Meeting. This notice is being mailed to all parties who submitted a proposal to this solicitation and is also posted on the Commission Web Site as follows:  
<http://www.energy.ca.gov/contracts/pier.html>.

The Energy Commission will consider the Committee's recommendations during a publicly noticed Business Meeting at the Energy Commission in Sacramento, California. This meeting is tentatively scheduled for January 13, 2010.

Persons wishing further information about this matter may contact Fernando Pina at (916) 654-4609 or by email [fpina@energy.state.ca.us](mailto:fpina@energy.state.ca.us)



## California Energy Commission Public Interest Energy Research Program (PIER) Notice of Proposal Awards and Results of Submitted Proposals



**Solicitation PON-08-005**

Combined Heat and Power and Combined Cooling, Heating, and Power Systems

Rank	Prime Applicant	Title	PIER Funds Requested	PIER Funds Recommended	Match Funding	Score Status
<b>Proposed Awards</b>						
1	Sacramento Municipal Utility District	High-Efficiency, Renewable Combined Cooling/Heating/Power System for Food Processing	\$1,482,513	\$1,482,513	\$3,114,450	<b>Awardee</b>
2	Altex Technologies Corporation	Boiler Burner Energy System Technology for Firetube Boilers	\$1,493,581	\$1,493,581	\$473,629	<b>Awardee</b>
3	UC Irvine	Economical Dispatch of CCHP Systems with Emissions Constraints and Thermal Load Following Capability	\$412,634	\$412,634	\$147,433	<b>Awardee</b>
4	Makel Engineering Inc.	Biogas Fuelled HCCI Generation for Combined Heat and Power Systems	\$580,706	\$580,706	\$273,689	<b>Awardee</b>
5	UC Irvine	Low Emissions Exhaust Enthalpy Control System to Optimize DG/CCHP Systems	\$666,285	\$666,285	\$71,875	<b>Awardee</b>
6	Altex Technologies Corporation	Waste Vegetable Oil Driven CHP for Fast Food Restaurants	\$1,435,693	\$1,435,693	\$1,070,978	<b>Awardee</b>
7	Fiscalini Farms, L.P.	CHP Operation Using Emission Control Technology	\$1,500,000	\$1,500,000	\$375,000	<b>Awardee</b>
8	National Fuel Cell Research Center - UC Irvine	Development and Demonstration of a Novel High-Temperature Fuel Cell Absorption Chiller CCHP System	\$1,480,000	\$1,480,000	\$2,140,000	<b>Awardee</b>
<b>Passed but not Funded</b>						
9	American Assets Inc	CCHP Biodigestion Plant for American Assets Redevelopment	\$1,472,800	\$0	\$3,190,964	<b>Finalist</b>



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9	The ADEPT Group, Inc.	Advancing Market Penetration through Development of Portable Sub-50hp CHP System	\$462,274	\$0	\$444,188	<b>Finalist</b>
11	ADI Thermal Power Corporation	"Smart Site" 25 kW Stirling engine-chiller system	\$1,496,883	\$0	\$1,520,750	<b>Finalist</b>

**Did not Pass**

0	Alternative Energy Systems Consulting, Inc.	Verification of a Tool for Optimal Operation of CHP/CCHP Systems	\$587,306	\$0	\$108,654	<b>Did not pass</b>
0	UC Merced	Energy Efficient Combined Heat and Power System Using Plasma-Arc Waste Gasification	\$1,044,183	\$0	\$631,250	<b>Did not pass</b>
0	Gas Technology Institute (GTI)	A Thermally Integrated Power System for Combined Heat and Power	\$1,500,000	\$0	\$279,080	<b>Did not pass</b>
0	GSE Inc.	Low Emissions/High-Efficiency Multi-Fuel/Semi-Free Piston CHP	\$1,313,076	\$0	\$1,369,656	<b>Did not pass</b>
0	San Diego State University	Ultra-low Grade Heat Driven CHP System using Ozone-neutral Refrigerant	\$233,612	\$0	\$100,693	<b>Did not pass</b>
0	Colorado State University	Combined-Cycle Reciprocating Engine for Improved CCHP Applications	\$1,143,824	\$0	\$74,000	<b>Did not pass</b>
0	Alturdyne	Small Recuperated Gas Turbine (CHP) Waste Gas Combustion System	\$365,027	\$0	\$139,536	<b>Did not pass</b>
0	Clever Fellows Innovation Consortium (CFIC), Inc.	Practical Combined Heat & Power for Households: Acoustic-Stirling GEN2	\$314,319	\$0	\$411,819	<b>Did not pass</b>
0	FlueGen Inc.	Greenhouse Gas & Particulate Emissions Control	\$704,000	\$0	\$617,000	<b>Did not pass</b>



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0	Clean Energy Systems, Inc.	Intermediate Pressure Turbine Development for Oxy-Fuel Zero Emissions CHP Cycles	\$1,464,023	\$0	\$258,357	Did not pass
0	Center for Environmental Energy Engineering-University of Maryland	High Efficiency, Dedicated CHP Cooling System	\$917,402	\$0	\$14,549	Did not pass
0	Treves Group, LLC	DER System Based on Automotive Natural Gas Engine Suitable for CHP & CCHP Applications	\$1,400,000	\$0	\$600,000	Did not pass
0	PODenergy.org	Oxygen-rich (low-nitrogen) internal combustion	\$1,081,881	\$0	\$45,962	Did not pass
0	North River Energy	Zero Emissions Hydrogen/Oxygen Combined Cycle Tri-ply Cogeneration Power Generation System	\$580,911	\$0	\$620,429	Did not pass
<b>Total Funds Recommended for CHP/CCHP Project</b>			<b>\$25,132,933</b>	<b>\$9,051,412</b>	<b>\$18,093,941</b>	

Dated: December 1, 2009

Expires: December 8, 2009