

CALIFORNIA ENERGY COMMISSION

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**NOTICE OF PROPOSED AWARDS - PHASE-2****Advance Breakthrough and Piezoelectric-Based Systems Development to Increase Market Penetration of Distributed Renewable Generation****EPIC GFO-16-302****January 9, 2017**

On July 27, 2016, the California Energy Commission (Energy Commission) released a 2-phase competitive solicitation to fund applied research and development activities to advance breakthrough energy generation technologies and piezoelectric-based systems to dramatically increase efficiencies, reduce costs and enable generation from additional renewable resources. Up to \$7 million in Electric Program Investment Charge (EPIC) funding is available to fund projects in:

- Group 1: Advance Breakthroughs in Distributed Renewable Energy Technologies
- Group 2: Development of Piezoelectric-Based Systems

For phase-1, the Energy Commission received twenty abstracts by the due date of September 9, 2016. Each abstract was screened on a pass/fail basis using the criteria in the solicitation. Ten proposals passed the screening process.

For phase-2, nine proposals were submitted by the due date of November 18, 2016. Each proposal was screened, reviewed, evaluated and scored using the criteria in the solicitation. Four proposals from group 1 and two proposals from group 2 passed evaluation and scoring.

The attached two tables, one for each group, titled "Notice of Proposed Awards - Phase-2" identify each applicant selected and recommended for funding by the Energy Commission staff and includes the recommended funding amount. The total amount recommended is \$7,000,000.

Funding of proposed projects resulting from this solicitation is contingent upon the proposed approval of these projects at a publicly noticed Energy Commission Business Meeting and execution of a grant agreement. If the Energy Commission is unable to timely negotiate and execute a funding agreement with an applicant, the Energy Commission, at its sole discretion, reserves the right to cancel or otherwise modify the pending award, and award the funds to another applicant.

In addition, the Energy Commission reserves the right to: 1) add to, remove, or shift funding to make additional awards and 2) negotiate with successful applicants to modify the project scope, schedule, and/or level of funding.

This notice is being mailed to all parties who submitted an application to this solicitation (phase-2) and is also posted on the Energy Commission's website at: www.energy.ca.gov/contracts/.

For information, please contact Diana Parmley at (916) 651-9409 or diana.parmley@energy.ca.gov.

Diana Parmley
Commission Agreement Officer



California Energy Commission

GFO-16-302

Advance Breakthrough and Piezoelectric-Based Systems Development to Increase Market Penetration of Distributed Renewable Generation

Notice of Proposed Awards - Phase-2

Group 1: Advance Breakthroughs in Distributed Renewable Energy Technologies

January 9, 2017

Rank	Project Applicant	Title	Energy Commission Funds Requested	Energy Commission Funds Recommended	Match Funds	Score	Award Status
PASSED							
1	Lawrence Berkeley National Laboratory	Low-Cost High-Reliability Thermoelectrics for Waste Heat Conversion	\$2,000,000	\$2,000,000	\$3,500,000	82.69	Awardee
2	The Regents of the University of California, San Diego	Scaling Reliable, Next-Generation Perovskite Solar Cell Modules	\$1,450,000	\$1,450,000	\$145,967	79.68	Awardee
3	AltaRock Energy, Inc.	Thermoelectric Generator Application and Pilot Test in a Geothermal Field	\$1,280,000	\$1,280,000	\$120,000	77.54	Awardee
		Total	\$4,730,000	\$4,730,000	\$3,765,967		
PASSED BUT NOT FUNDED							
4	Altex Technologies Corporation	Altex Advanced Thermo Electric Generator System (AATEGS)	\$1,300,000	\$0	\$130,000	76.50	Finalist
		Total	\$1,300,000	\$0	\$130,000		



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Notice of Proposed Awards - Phase-2

Group 1: Advance Breakthroughs in Distributed Renewable Energy Technologies

January 9, 2017

Rank	Project Applicant	Title	Energy Commission Funds Requested	Energy Commission Funds Recommended	Match Funds	Score	Award Status
DID NOT PASS							
	PowerVerde Inc.	Increasing Performance and Economics of Distributed Power Generation Using an Advanced High Temperature Wet Steam Cycle	\$1,000,000	\$0	\$500,000		Did Not Pass
	The Regents of the University of California, San Diego	Scaleable 3D Optical Printing of High-Efficiency Piezoelectric Polymer Composites for Distributed Renewable Energy Technologies	\$450,000	\$0	\$0		Did Not Pass
		Total	\$1,450,000	\$0	\$500,000		
		Grand Total	\$7,480,000	\$4,730,000	\$4,395,967		



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Notice of proposed Awards - Phase-2

Group 2: Development of Piezoelectric-Based Systems

January 9, 2017

Rank	Project Applicant	Title	Energy Commission Funds Requested	Energy Commission Funds Recommended	Match Funds	Score	award Status
PASSED							
1	Pyro-E LLC	Force Multiplier Actuated Piezoelectric Energy Harvester for Roadway Energy Recovery	\$1,000,000	\$1,000,000	\$100,000	82.08	Awardee
2	University of California, Merced	Ultra-High Power Density Roadway Piezoelectric Energy Harvesting System	\$2,000,000	\$1,270,000	\$0	72.68	Awardee
		Total	\$3,000,000	\$2,270,000	\$100,000		
DID NOT PASS							
	University of Southern California	Mechanical Vibration Sensing and Electricity Generation (MeVSEG) by Advanced Piezoelectric Energy Harvesting Technologies	\$1,200,000	\$0	\$110,000		Did Not Pass
		Grand Total	\$4,200,000	\$2,270,000	\$210,000		