

**CALIFORNIA ENERGY COMMISSION**

DIVISION OF FINANCIAL SERVICES  
GRANTS & LOANS  
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**NOTICE OF PROPOSED AWARDS****American Recovery and Reinvestment Act of 2009 Cost Share  
PON-08-011****(DE-FOA 0000015, 0000036, 0000055, 0000057, 0000058, 0000065, 0000082,  
0000107, 0000115, 0000118)****December 30, 2009**

On June 18, 2009 the California Energy Commission (Energy Commission) released a Program Opportunity Notice (PON) and Grant Solicitation and Application Package PON-08-011 entitled "American Recovery and Reinvestment Act (ARRA) of 2009 Cost Share" under the Public Interest Energy Research (PIER) Program. The solicitation announced that the Energy Commission plans to allocate up to 21 million of electricity funds for Cost Share. The grant solicitation was released to offer cost share funding to those applying and receiving ARRA grant funding from the federal government under one or more of the following federal opportunity announcements (herein collectively referred to as FOAs):

- FOA 0000015: Carbon Capture and Sequestration from Industrial Sources and Innovative Concepts for Beneficial Carbon Dioxide Use
- FOA 0000036: Smart Grid Demonstrations
- FOA 0000055: Solid State Lighting- Product Development
- FOA 0000057: Solid State Lighting U.S. Manufacturing- Round 1
- FOA 0000058: Smart Grid Investment Grant Program
- FOA 0000065: Advanced Research Projects- Energy (ARPA-E)
- FOA 0000082: Solid State Lighting- Core
- FOA 0000107: Energy Efficient Information and Communication Technology
- FOA 0000115: Advanced Energy Efficient Building Technologies
- FOA 0000118: Training Program Development for Commercial Buildings Equipment Technicians, Building Operators

In accordance with the grant solicitation and application package, each proposal was screened for completeness and reviewed by the Energy Commission staff. The letters of intent for cost share were issued to the successful pre-applicants, who were directed to submit final applications to the Energy Commission. The Energy Commission's Technical Advisory Committee (TAC) reviewed, evaluated, and scored final applications, using the criteria prescribed in the application package, including requirement of receiving ARRA award from the federal government. Based on the TAC's scores and directions from the RD&D Committee, the proposed matching funding is recommended for the FOAs.

The attached table “Notice of Proposed Awards and Results of Submitted Proposals” identifies applicants selected to receive funding, the project title, the amount of recommended funding by the RD&D Committee, and scoring information. Under Score status, applicants who did not receive ARRA funding from the federal government, did not meet the requirements of an eligible project or did not receive a passing score are shown as “not awarded”.

For applicants that did not pass this PON, but subsequently received ARRA funding from DOE, the Energy Commission plans to release a new PON in December to provide a second chance to interested parties. The new PON (PON-09-002) will be posted on the Energy Commission Web Site: <http://www.energy.ca.gov/contracts/index.html>

If the applicant receives ARRA funding from the federal government, the Energy Commission’s cost share is contingent upon the approval of the requested funding 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 Energy Commission Web Site: <http://www.energy.ca.gov/contracts/index.html>

Persons wishing further information about this matter may contact Pedro Gomez at (916) 653-4278 or by email [pgomez@energy.state.ca.us](mailto:pgomez@energy.state.ca.us).



# California Energy Commission

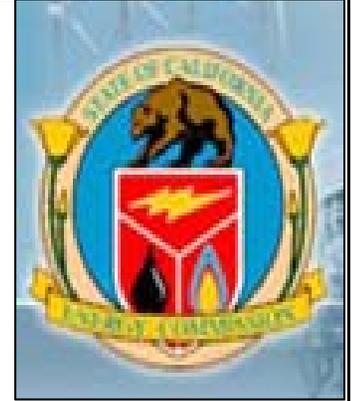
## Public Interest Energy Research Program (PIER)

### Notice of Proposal Awards and Results of Submitted Proposals

#### Solicitation PON-08-011\*\*

(DE-FOA 0000015, 0000036, 0000055, 0000057,  
0000058, 0000065, 0000082, 0000107, 0000115, 0000118)

American Recovery and Reinvestment Act of 2009 Cost Share



#### FOA 0000015: Carbon Capture and Sequestration from Industrial Sources and Innovative Concepts for Beneficial Carbon Dioxide Use

Rank	Prime Applicant	Title	PIER Funds Requested	PIER Funds Recommended	DOE Funding Requested	Score Status*
1	C6 Resources, LLC	Northern California Carbon Dioxide Reduction Project	\$300,000	\$300,000	\$3,000,000	Awarded
2	Clean Energy Systems	Kimberlina Zero Emissions Power Plant with Carbon Dioxide Capture and Sequestration	\$300,000	\$0	\$1,671,173	Not Awarded
3	Calera Corporation	Carbon Mineralization by Aqueous Precipitation for Beneficial Use of CO2 from Flue Gas	\$300,000	\$0	\$3,062,754	Not Awarded
4	Origin Oil	OriginOil Carbon Capture Pilot Project	\$191,606	\$0	\$786,064	Not Awarded
<b>Total Funds Recommended</b>			<b>\$1,091,606</b>	<b>\$300,000</b>	<b>\$8,519,991</b>	

#### FOA 0000036: Smart Grid Demonstrations

Rank	Prime Applicant	Title	PIER Funds Requested	PIER Funds Recommended	DOE Funding Requested	Score Status
1	Pacific Gas & Electric	Advanced Underground CAES Demonstration Project	\$1,000,000	\$1,000,000	\$25,000,000	Awarded
2	Southern California Edison	Irvine Smart Grid Demonstration	\$1,000,000	\$1,000,000	\$40,134,700	Awarded
3	Southern California Edison	Tehachapi Wind Energy Storage Project	\$1,000,000	\$1,000,000	\$24,978,264	Awarded
4	Los Angeles Department of Water and Power	Smart Grid Regional Demonstration Project	\$1,000,000	\$1,000,000	\$60,280,000	Awarded
5	Primus Power	Wind Firming EnergyFarm	\$1,000,000	\$1,000,000	\$14,000,000	Awarded

0	Fluidic Energy Inc.	Multi-Site Demonstration of Promising Energy Storage Technology	\$475,000	\$0	\$4,750,000	Not Awarded
0	Utility Savings & Refund, LLC	Demonstration of Vanadium Redox Flow Battery with On-Site Generation	\$150,000	\$0	\$1,500,000	Not Awarded
0	Sacramento Municipal Utility District	Distributed Energy Storage Pilot at Anatolia	\$1,000,000	\$0	\$5,948,499	Not Awarded
0	UC San Diego	Smart Grid Demonstation Area 2.2	\$500,000	\$0	\$5,000,000	Not Awarded
0	UC San Diego	Smart Grid Demonstation Area 2.3	\$500,000	\$0	\$5,000,000	Not Awarded
0	CSU Sacramento	Active Management and Integration of Smart Grid Resources with Dynamic Pricing for Electricity	\$1,000,000	\$0	\$22,500,000	Not Awarded
0	San Diego Gas & Electric	Secure End-to-End Smart Green Grid Demonstration	\$1,000,000	\$0	\$100,000,000	Not Awarded
0	CSU Office of the Chancellor	Smart Grid Demonstration Program	\$1,000,000	\$0	\$60,000,000	Not Awarded
0	Eurticity, Inc.	Networked Intelligent Energy Optimized Building Integration Platform	\$1,000,000	\$0	\$18,000,000	Not Awarded
0	Seeo, Inc.	Solid State Batteries for Grid-Scale Energy Storage	\$1,000,000	\$0	\$6,196,060	Not Awarded
<b>Total Funds Recommended</b>			<b>\$12,625,000</b>	<b>\$5,000,000</b>	<b>\$393,287,523</b>	

<b>FOA 000055: Solid State Lighting- Product Development</b>						
<b>Rank</b>	<b>Prime Applicant</b>	<b>Title</b>	<b>PIER Funds Requested</b>	<b>PIER Funds Recommended</b>	<b>DOE Funding Requested</b>	<b>Score Status</b>
0	Progressive Cooling Solutions, Inc.	Novel Cooling Technology Enables Metal Halide Replacement with LED	\$200,000	\$0	\$1,800,000	Not Awarded
0	Eurticity, Inc.	Off-Grid Reactive LED Smart Lamps	\$100,000	\$0	\$400,000	Not Awarded
0	Eurticity, Inc.	Grid Reactive LED Smart Lamps	\$200,000	\$0	\$800,000	Not Awarded
<b>Total Funds Recommended</b>			<b>\$500,000</b>	<b>\$0</b>	<b>\$3,000,000</b>	

**FOA 000057: Solid State Lighting U.S. Manufacturing- Round 1**

Rank	Prime Applicant	Title	PIER Funds Requested	PIER Funds Recommended	DOE Funding Requested	Score Status
1	Atomic Precision Systems, Inc.	Technology to manufacture Low-	\$499,900	\$499,900	\$1,499,995	<b>Awarded</b>
<b>Total Funds Recommended</b>			<b>\$499,900</b>	<b>\$499,900</b>	<b>\$1,499,995</b>	

**FOA 000058: Smart Grid Investment Grant Program**

Rank	Prime Applicant	Title	PIER Funds Requested	PIER Funds Recommended	DOE Funding Requested	Score Status
1	San Diego Gas and Electric(Sempra Energy)	Advanced Metering Infrastructure	\$1,000,000	\$1,000,000	\$28,115,052	<b>Awarded</b>
1	Electric Power Group, LLC	SynchroPhaser Technology Investments and Implementation	\$270,000	\$270,000	\$2,700,000	<b>Awarded</b>
3	Pacific Gas & Electric	Electric Transmission Systems	\$1,000,000	\$1,000,000	\$22,000,000	<b>Awarded</b>
4	Sacramento Municipal Utility District	Integrated and Crosscutting Systems	\$1,000,000	\$1,000,000	\$127,506,261	<b>Awarded</b>
5	City of Anaheim	Integrated and Crosscutting Systems	\$590,000	\$589,603	\$5,896,025	<b>Awarded</b>
0	City Electric Utility, Silicon Valley Power	Advanced Metering Infrastructure	\$1,000,000	\$0	\$10,000,000	<b>Not Awarded</b>
0	Pacific Gas & Electric	Advanced Metering Infrastructure	\$1,000,000	\$0	\$80,000,000	<b>Not Awarded</b>
0	Joint Ventures: Silicon Valley Network	Customer Systems	\$900,000	\$0	\$9,000,000	<b>Not Awarded</b>
0	UC San Diego	Customer Systems	\$1,000,000	\$0	\$20,000,000	<b>Not Awarded</b>
0	Southern California Public Power Authority	Equipment Manufacturing	\$1,000,000	\$0	\$38,000,000	<b>Not Awarded</b>
0	City of Glendale Water and Power	Advanced Metering Infrastructure	\$1,000,000	\$0	\$20,000,000	<b>Not Awarded</b>
<b>Total Funds Recommended</b>			<b>\$9,760,000</b>	<b>\$3,859,603</b>	<b>\$363,217,338</b>	

**FOA 000065: Advanced Research Projects - Energy (ARPA-E)**

<b>Rank</b>	<b>Prime Applicant</b>	<b>Title</b>	<b>PIER Funds Requested</b>	<b>PIER Funds Recommended</b>	<b>DOE Funding Requested</b>	<b>Score Status</b>
1	Porifera, Inc.	Carbon Nanotube Membranes for Energy-Efficient Carbon Sequestration	\$110,000	\$107,790	\$1,080,000	<b>Awarded</b>
0	Stanford University	Large Scale Energy Reductions through Sensors, Feedback and Information Technology	\$500,000	\$0	\$5,400,000	<b>Not Awarded</b>
0	One-Cycle Control, Inc.	Hexagram Variable Speed Drive for Multi-MW Motors	\$300,000	\$0	\$3,000,000	<b>Not Awarded</b>
0	UC Santa Cruz	Luminescent Solar Concentrators Using Existing US Manufacturing Technology	\$260,000	\$0	\$2,900,000	<b>Not Awarded</b>
0	EnerVault	High Efficiency, Low Cost, Grid-Scale Energy Storage System	\$416,000	\$0	\$4,160,000	<b>Not Awarded</b>
0	Seeo, Inc.	Lithium Batteries with Solid State Electrolytes	\$500,000	\$0	\$7,200,000	<b>Not Awarded</b>
0	Porifera, Inc.	Carbon Nanotube Membranes for Osmotic Power Generation	\$144,766	\$0	\$1,447,660	<b>Not Awarded</b>
0	Amprius, Inc.	Doubling the Energy Density of Lithium-Ion Batteries	\$500,000	\$0	\$5,000,000	<b>Not Awarded</b>
0	Directed Technologies	Electro-Hydrothermal Spallation Drill for Widespread EGS Deployment	\$500,000	\$0	\$5,991,000	<b>Not Awarded</b>
0	Calera Corporation	Aqueous Carbamate Mineral Precipitation: Multi-Level Pollution Control Option	\$422,166	\$0	\$5,277,081	<b>Not Awarded</b>
0	E-Solar	Solar Air Receiver and Gas Turbine System	\$500,000	\$0	\$5,476,940	<b>Not Awarded</b>
<b>Total Funds Recommended</b>			<b>\$4,152,932</b>	<b>\$107,790</b>	<b>\$46,932,681</b>	

<b>FOA 000082: Solid State Lighting- Core</b>						
<b>Rank</b>	<b>Prime Applicant</b>	<b>Title</b>	<b>PIER Funds Requested</b>	<b>PIER Funds Recommended</b>	<b>DOE Funding Requested</b>	<b>Score Status</b>
1	Lightwave Photonics, Inc.	Improved LED Performance Via Purcell Effect and Photon Recycling	\$200,000	\$200,000	\$1,200,000	<b>Awarded</b>
<b>Total Funds Recommended</b>			<b>\$200,000</b>	<b>\$200,000</b>	<b>\$1,200,000</b>	
<b>FOA 0000107: Energy Efficient Information and Communication Technology</b>						
<b>Rank</b>	<b>Prime Applicant</b>	<b>Title</b>	<b>PIER Funds Requested</b>	<b>PIER Funds Recommended</b>	<b>DOE Funding</b>	<b>Score Status</b>
1	UC San Diego	Renewable Bio-Fueled 400 VDC Modular Data Center	\$250,000	\$250,000	\$5,750,000	<b>Awarded</b>
0	Clustered Systems	Development of Very Dense Liquid Cooled Compute Platform	\$250,000	\$0	\$2,250,000	<b>Not Awarded</b>
0	Federspiel Controls	Demonstration of Energy Efficient Cooling Scheme - Dynamic Datacenter Cooling Control	\$250,000	\$0	\$500,000	<b>Not Awarded</b>
<b>Total Funds Recommended</b>			<b>\$500,000</b>	<b>\$250,000</b>	<b>\$8,500,000</b>	
<b>FOA 0000115: Advanced Energy Efficient Building Technologies</b>						
<b>Rank</b>	<b>Prime Applicant</b>	<b>Title</b>	<b>PIER Funds Requested</b>	<b>PIER Funds Recommended</b>	<b>DOE Funding Requested</b>	<b>Score Status</b>
1	Davis Energy Group, Inc.	Development, Testing, and Commercialization of Advanced Residential Cooling Technologies	\$180,000	\$180,000	\$2,000,000	<b>Awarded</b>
2	Davis Energy Group, Inc.	Development and Commercialization of Perimeter Insulation for Residential Slabs	\$220,000	\$220,000	\$1,100,000	<b>Awarded</b>
3	TIAX LLC	Modeling Miscellaneous Electric Loads (MELs) in Commercial Buildings	\$400,000	\$400,000	\$800,000	<b>Awarded</b>
4	Nrgtek, Inc.	Unitized Residential Solar Thermoelectric Power-Hot Water Systems	\$400,000	\$400,000	\$2,000,000	<b>Awarded</b>
5	Redwood Renewables LLC	Redwood Renewables Cool-Roof Manufacturing Process	\$300,000	\$300,000	\$1,100,000	<b>Awarded</b>

6	Agilewaves	Performance Measurement and Benchmarking for Net-Zero Buildings	\$358,297	\$358,297	\$1,433,188	<b>Awarded</b>
7	Viridity Energy, Inc.	Advanced Energy Storage Management and Optimization	\$400,000	\$400,000	\$2,000,000	<b>Awarded</b>
0	Pyramid Solar Renewables, LLC	Solar Building Materials for Thermal, Photovoltaic, and Lighting	\$400,000	\$0	\$2,000,000	<b>Not Awarded</b>
0	Pyramid Solar Renewables, LLC	Solar Building Materials for Commercial Space Conditioning, and Water	\$400,000	\$0	\$2,000,000	<b>Not Awarded</b>
0	Glumac	Barton Memorial Hospital Central Plant Replacement	\$400,000	\$0	\$450,000	<b>Not Awarded</b>
0	Thrive Power	R&D with Prototype of Solar CHP-A/C	\$350,000	\$0	\$1,800,000	<b>Not Awarded</b>
0	Joule Energy, Inc.	Emerging Technologies Refrigerated Warehouse Projects	\$260,000	\$0	\$560,000	<b>Not Awarded</b>
0	Solar Sense	Solar Panel Installation, Maintenance, and Repair	\$100,000	\$0	\$200,000	<b>Not Awarded</b>
0	Eutricity, Inc.	LED Smart Lamp-Based Building Energy and Sensor Network	\$400,000	\$0	\$2,000,000	<b>Not Awarded</b>
0	Pyramid Solar Renewables, LLC	Solar Building Materials for Commercial Space Conditioning, and Water	\$400,000	\$0	\$2,000,000	<b>Not Awarded</b>
0	ASR Systems	Model Based Design and Control of Buildings for Minimizing Energy	\$400,000	\$0	\$700,000	<b>Not Awarded</b>
0	California Lighting Technology Center- UC Davis	Capitol Rotunda Efficient LED Lighting	\$250,000	\$0	\$350,000	<b>Not Awarded</b>
0	Green Design Systems	Straw Building Panel Project	\$96,500	\$0	\$483,000	<b>Not Awarded</b>
0	Ecological Building Network	Research and Promote Straw-Based Insulation Systems	\$400,000	\$0	\$800,000	<b>Not Awarded</b>
<b>Total Funds Recommended</b>			<b>\$6,114,797</b>	<b>\$2,258,297</b>	<b>\$23,776,188</b>	

**FOA 0000118: Training Program Development for Commercial Buildings Equipment Technicians, Building Operators**

Rank	Prime Applicant	Title	PIER Funds Requested	PIER Funds Recommended	DOE Funding Requested	Score Status
1	Pacific Gas & Electric	Integrated Training & Resource Packages for Small and Medium Commercial Building Audits	\$120,000	\$120,000	\$380,000	<b>Awarded</b>
2	Laney College	Green Re-modeling of Community College Curriculum for Commercial Building Operators	\$120,000	\$120,000	\$380,000	<b>Awarded</b>
3	Portland Energy Conservation, Inc.	Curriculum for Developing Energy Efficient Buildings	\$120,026	\$120,026	\$1,455,063	<b>Awarded</b>
0	Institute for Sustainable Building Performance (SuPerB)	For Equipment Technicians: PBCS Scenarios for Low Energy Buildings	\$120,000	\$0	\$625,000	<b>Not Awarded</b>
0	Institute for Sustainable Building Performance (SuPerB)	For Building Operators: PBCS Scenarios for Low Energy Buildings	\$120,000	\$0	\$563,000	<b>Not Awarded</b>
0	Institute for Sustainable Building Performance (SuPerB)	For Commissioning Agents/Auditors: PBCS Scenarios for Low Energy Buildings	\$120,000	\$0	\$592,000	<b>Not Awarded</b>
0	Sacramento City College	Program for Commercial Building Energy Commissioning Agents/Auditors	\$120,000	\$0	\$600,000	<b>Not Awarded</b>
<b>Total Funds Recommended</b>			<b>\$840,026</b>	<b>\$360,026</b>	<b>\$4,595,063</b>	

**\*Applicants who did not receive ARRA funding from the federal government, did not meet the requirements of an eligible project or did not receive a passing score are shown as "not awarded".**

**\*\*All Pier awards identified in this NOPA are contingent on applicant receiving ARRA funds from DOE and approval of the proposed agreement at an Energy Commission Business Meeting. Actual award amounts depend on actual DOE funding amounts (Energy Commission contribution restricted to limits set in PON- 08-011 as specified by FOA#)**

Dated: December 30, 2009

Expires: January 6, 2010