

CALIFORNIA ENERGY COMMISSION

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

**NOTICE OF PROPOSED AWARD (NOPA)****Reduce the Environmental and Public Health Impacts of Electrical Generation and
Make the Electricity Systems Less Vulnerable to Climate Impacts: Phase II
GFO-15-309
March 3, 2016**

On October 5, 2015 the California Energy Commission (Energy Commission) released a competitive solicitation to fund applied research and development projects that meet the following objectives: Improve indoor air quality while advancing the next generation end-use energy efficiency technologies and strategies for the building sector and to reduce the environmental and public health impacts of electricity generation and make the electricity system less vulnerable to climate impacts. Up to \$9,551,000 in Electric Program Investment Charge (EPIC) funding is available to fund applications in the following groups:

- Group 1: Indoor Air Quality: Assess the Impact of Ventilation on Indoor Environmental Quality (IEQ), Health, and Human Performance in New and Retrofit Buildings
- Group 2: Real World Electrification Options of Energy Services and Environmental Justice (EJ) Considerations
- Group 3: Public Health Research Roadmap
- Group 4: Carbon Balance with Renewable Energy
- Group 5: Environmentally Preferred Areas for Distributed Generation
- Group 6: Experimental Mitigation Strategies for Plants and Animals
- Group 7: Energy-Groundwater Nexus
- Group 8: Barriers to Adaptation & Climate Resilience Performance Metrics for the Energy Sector
- Group 9: Investigating Barriers to the Use of Cal-Adapt and Strategies to Support Actionable Science in Decision-Making for the Electricity Sector
- Group 10: Probabilistic Seasonal and Decadal Forecast for the Electricity System
- Group 11: Grant Projects for Energy-related Environmental Research

The Energy Commission received forty-five proposals by the due date of December 18, 2105. Each proposal was screened, reviewed, evaluated and scored using the criteria in the solicitation. Forty-five proposals passed the Stage One Application Screening. Of these, twenty-one proposals were received for Group 11. **A prior NOPA was released on February 11, 2016 for Groups 1-10. This NOPA includes awards only for Group 11.**

The attached "Notice of Proposed Award" identifies each applicant selected and recommended for funding by Energy Commission staff and includes the recommended funding amount and score. The total amount recommended is \$1,718,814.

Funding of proposed projects resulting from this solicitation is contingent upon the 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 between the different groups if there are insufficient passing proposals in one group 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 and is also posted on the Energy Commission's website at:
www.energy.ca.gov/contracts/.

For information, please contact Phil Dyer at (916) 654-4651 or at Phil.Dyer@energy.ca.gov.

Phil Dyer
Commission Agreement Officer



**California Energy Commission
GFO-15-309**

**Reduce the Environmental and Public Health Impacts of Electrical Generation and
Make the Electricity Systems Less Vulnerable to Climate Impacts: Phase II**

Project Group 11 – Grant Projects for Energy-related Environmental Research

Notice of Proposed Award

3/4/16

Rank Number	Project Applicant	Title	Energy Commission Funds Requested	Energy Commission Funds Recommended	Match Funds	Score	Award Status
Proposed Award							
1	Antelope Valley Water Storage, LLC	Electricity Pumped Storage Systems Using Underground Reservoirs: A Feasibility Study for the Antelope Valley Water Storage System	\$197,300.00	\$197,300.00	\$200,000.00	91.29	Awardee
2	Lawrence Berkeley National Laboratory	Understanding and Mitigating Statewide Barriers to Wind Energy Expansion in California Using a Combination of Observations and High-Resolution Climate Models	\$200,000.00	\$200,000.00	\$0.00	84.36	Awardee
3	Thalassa Research & Consulting, LLC	The Adaption Blind Spot-Electrical Grid Teleconnected and Cascading Climate Change Impacts on Community Lifelines in Los Angeles	\$128,188.00	\$128,188.00	\$0.00	83.86	Awardee
4	Ghoulem Research	Historical Insights for Electricity Transition Scenarios in California	\$200,000.00	\$200,000.00	\$0.00	83.43	Awardee
5	The Regents of the University of California, Merced Campus	Low-Temperature Microplasma-Assisted Hydrogen Production from Biogas for Electricity Generation	\$200,000.00	\$200,000.00	\$82,963.00	83.43	Awardee
6	Altostratus, Inc.	Intra-Urban Enhancements to Probabilistic Climate Forecasting for the Electric System for the Los Angeles basin, San Francisco Bay Area, San Diego Region, and the Fresno-Bakersfield Area.	\$193,326.00	\$193,326.00	\$5,000.00	83.36	Awardee
7	Ghoulem Research	Flexible Energy Demand Modeling for Residential Air Conditioning with Improved Behavioral Specificity	\$200,000.00	\$200,000.00	\$0.00	83.00	Awardee
8	The Regents of the University of California, Irvine Campus	Robust, Low Cost Real Time NOx Sensor for Optimization of Dispatchable Distributed Statewide Generation Systems	\$200,000.00	\$200,000.00	\$0.00	82.71	Awardee
9	The Regents of the University of California, Davis Campus	Biomimetic Carbon Capture Compounds: Non-toxic Substitutes for Amines	\$200,000.00	\$200,000.00	\$0.00	79.43	Awardee
Total Funding Recommended			\$1,718,814	\$1,718,814	\$287,963		
Passed but Not Funded							
10	Electric Power Research Institute (EPRI)	Life Cycle Assessment Stationary Lithium Ion Battery Storage for Grid Applications	\$136,213.00	\$0.00	\$59,450.00	79.29	Finalist
11	Zoological Society of San Diego d/b/a San Diego Zoo Global	Understanding Habitat Quality for the Desert Tortoise for the Purposes of Mitigation and Habitat Protection	\$199,751.00	\$0.00	\$121,974.00	78.94	Finalist
12	The Regents of the University of California, Davis Campus	CaEnergyMap.org: Tracking the Statewide Progress, Dynamics, and Potential of Big Solar and Wind Energy Development	\$200,000.00	\$0.00	\$70,000.00	78.71	Finalist
13	Lawrence Berkeley National Laboratory	Advanced Adjoint Modeling to Determine Location-Specific Ozone Mitigation Strategies for Expanding Bioenergy Development in California	\$200,000.00	\$0.00	\$0.00	78.64	Finalist
14	The Regents of the University of California, Davis Campus	Assessing the Capacity of the Sacramento Tree Foundation Shade Programs for Coping with Climate Change: A Mediation Effect Modeling Approach	\$199,956.00	\$0.00	\$0.00	77.86	Finalist
15	Eagle Rock Analytics	Using Atmospheric Centers of Action to Predict Electricity Consumption	\$200,000.00	\$0.00	\$0.00	77.64	Finalist
16	Passive House California Inc.	California Passive House Research Initiative (CAPHRI)	\$196,874.00	\$0.00	\$0.00	76.93	Finalist

17	EcoShift Consulting, LLC	Life Cycle Environmental and Ecological Benefits of Transparent Photovoltaics	\$200,000.00	\$0.00	\$0.00	76.57	Finalist
18	University of Southern California	An Integrated Solar/Waste Biogas Low Emissions Approach to Power Generation	\$200,000.00	\$0.00	\$93,538.00	76.07	Finalist
19	Black & Veatch Corporation	Electric Vehicle Adoption Model	\$199,956.00	\$0.00	\$0	75.86	Finalist
Total			\$1,932,750	\$0.00	\$344,962		
Did Not Pass							
20	The Regents of the University of California, Santa Cruz Campus	Impact of Federal Clean Power Plants: Air Quality Co-benefit and Alternative Policy Design	\$199,858.00	\$0.00	\$0.00	66.79	Did Not Pass
21	Black & Veatch Corporation	Updated Evaluation of Opportunities for Wind Repowering in California	\$150,142.00	\$0.00	\$0.00	60.71	Did Not Pass
Total			\$350,000	\$0.00	\$0.00		
Grand Total			\$4,001,564	\$1,718,814	\$632,925		