

RESOLUTION NUMBER:

STATE OF CALIFORNIA

**STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION**

WHEREAS, pursuant to Public Utilities Code Section 381 the State Energy Resources Conservation and Development Commission (Energy Commission) is authorized to establish and administer the Public Interest Energy Research Program (PIER); and

WHEREAS, the Energy Commission has recognized that California's electricity ratepayers benefit from energy research, development and demonstration (RD&D) activities conducted by individuals, small businesses, academics and small non-profit institutions; and

WHEREAS, the Energy Commission has created the Energy Innovations Small Grant Program within the PIER Program to provide funding for the aforementioned public interest RD&D activities; and

WHEREAS, the Energy Commission has designated the Trustees of the California State University (CSU) to serve as the Small Grant Program Administrator (under Inter-agency Agreement Number 500-98-014, Amendment 8) to solicit grant applications, recommend grant awards to the Energy Commission, and manage authorized grant projects; and

WHEREAS, CSU has now completed its thirty-ninth electricity solicitation and has recommended for PIER funding the small grant projects listed in the "Notice of Proposed Grant Awards" attached to this Resolution; and

WHEREAS, the Energy Commission's RD&D Staff has reviewed and concurs with CSU's recommendations.

NOW THEREFORE BE IT RESOLVED THAT, the Energy Commission approves and authorizes PIER funding for the small grant projects listed in the attached “**Notice of Proposed Grant Awards, EISG Solicitation Cycle 12-01.**”

The Energy Commission hereby directs the Program Administrator to execute grant agreements pursuant to the Inter-agency Agreement in this matter.

Dated: March 20, 2013

STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

Chairman

**Notice of Proposed Grant Awards, Energy Innovations Small Grant Program
(EISG) Solicitation Cycle 12-01:
Transportation Electrical, Transportation Natural Gas, Natural Gas and Electrical
(Total \$1,815,274)**

a. Transportation Electrical (12-01TE)

Project Title: INCEPTIVE - Adaptive Electric Vehicle Fast Charging Station
Principal Investigator: Giubbolini, Luigi, Adromeda Power LLC, Costa Mesa, CA
Amount: \$95,000

Project Title: Project Title: New Portable Electricity Storage Units Using Nanostructured Supercapacitors
Principal Investigator: Pan, Hing, University of California Davis, Davis CA
Amount: \$86,420

Project Title: Tour Engine: High Efficiency Split-Cycle Engine for BEVx Applications
Principal Investigator: Tour, Oded, Tour Engine, Inc., San Diego, CA
Amount: \$95,000

b. Transportation Natural Gas (12-01TNG)

Project Title: Crashworthy Subframe CNG Freight and Passenger Locomotive Fuel Tank Enclosure
Principal Investigator: Vierheller, Fred, SolidMasters, Fullerton, CA
Amount: \$93,218

Project Title: Biodiesel Production Via Poly Functional Reactive Distillation
Principal Investigator: Smoot, James, C/e Solutions, Inc., West Sacramento, CA
Amount: \$94,959

c. Natural Gas (12-01G)

Project Title: Achieving High Efficiency Through Solid State Microwave Assisted Spark Plugs
Principal Investigator: Dibble, Robert, University of California, Berkeley, Berkeley, CA
Amount: \$95,000

Project Title: Low Cost Glazed Polymer Solar Water Heater
Principal Investigator: Rhodes, Richard, Rhotech Solar, South San Francisco, CA
Amount: \$66,300

Project Title: Electroporation of Algal Biomass to Enhance Methane Gas Production
Principal Investigator: Garoma, Temesgen, San Diego State University, San Diego, CA

Amount: \$95,000

Project Title: Improved Energy Efficiency of Natural Gas/Producer Gas Fuel Mixtures

Principal Investigator: Seshadri, Kalyanasundaram, University of California San Diego, San Diego, CA

Amount: \$95,000

Project Title: Waste Heat Reformation of Renewable Feedstocks to Offset Natural Gas

Principal Investigator: Vernon, David, Humboldt State University, Humboldt, CA

Amount: \$94,993

Project Title: Two-Track Heat Storage: Very Hot Solar Thermal Storage

Principal Investigator: Olsen, Rolf, Individual, San Diego, CA

Amount: \$94,635

d. Electrical (12-01E)

Project Title: HVAC Management System with Dynamic Energy and Demand Optimization

Principal Investigator: Esser, Marc, Negawatt Consulting, Inc. , San Diego, CA

Amount: \$95,000

Project Title: Enhanced Light Extraction of LEDs Through Ultra-Fast Laser Nano-Fabrication

Principal Investigator: Yuan, Dajun , Torrey Hills Technologies LLC, San Diego, CA

Amount: \$94,954

Project Title: Cooling Tower Fouling Prevention through Surface Modification of Fill Media

Principal Investigator: Boyd, Peter H., Nano Hydrophobics, San Francisco, CA

Amount: \$95,000

Project Title: Static/Dynamic Compilation for QoS and Energy Efficiency in Datacenters

Principal Investigator: Tang, Lin, University of California, San Diego, San Diego CA

Amount: \$95,000

Project Title: High Performance Lithium-Ion and SiC-Based Powerpack for Renewable Energy

Principal Investigator: Lin, Limin, Bioenno Tech, LLC, Santa Ana, CA

Amount: \$95,000

PIER Energy Innovations Small Grant - Electricity Solicitation 12-01

Project Title:Tracking Optimization of Self-Orienting High-Concentrating Photovoltaic Elements

Principal Investigator: Hoffmann, James T., Sun Synchrony, Alameda, CA

Amount: \$95,000

Project Title:Crystallization of Electrodeposited CIS Thin Films on Flexible Foil

Principal Investigator: Menezes, Shalin, InterPhase Solar, Moorepark, CA

Amount: \$95,000

Project Title:Optimum Design of Secondary Optical Element for Concentrating Photovoltaics

Principal Investigator: Stone, Kenneth W., Butler Sun Solutions, Solana Beach, CA

Amount: \$94,900

Project Title:Low-Cost Energy Management System for Small Commercial Buildings

Principal Investigator: Raghavendra, Gayathri, EZ Green, Foster City, CA

Amount: \$49,895