

NOTICE OF PROPOSED AWARD (NOPA)

Advanced Vehicle-Grid Integration Research and Demonstration

GFO-16-303

Groups 1, 2, and 3

February 8, 2017

On July 20, 2016, the California Energy Commission (Energy Commission) released a competitive solicitation to fund Applied Research and Development (AR&D) and Technology Demonstration and Deployment (TD&D) projects in the vehicle-grid integration (VGI) topic area. Up to \$16,000,000 in Electric Program Investment Charge (EPIC) funding is available to fund applications in four project groups:

- Group 1: Smart and Efficient Charging of PEVs
- Group 2: Advanced Vehicle-Grid Integration (VGI) Technologies and Methods
- Group 3: Advanced Technologies for PEV Batteries
- Group 4: Advanced VGI for Fleets

This NOPA covers Groups 1, 2, and 3, which are for AR&D projects. The NOPA for Group 4 was released separately. The Energy Commission received 19 proposals total for AR&D projects by the due date of October 21, 2016. Each proposal was screened, reviewed, evaluated and scored using the criteria in the solicitation. All 19 proposals passed the Stage One Application Screening.

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 for Groups 1, 2, and 3 is \$5,326,250.

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) 654-1651 or Phil.Dyer@energy.ca.gov.

Phil Dyer
Commission Agreement Officer



California Energy Commission

GFO-16-303

Advanced Vehicle-Grid Integration Research and Demonstration

Applied Research and Development Program Area:

Group 1: *Smart and Efficient Charging of PEVs*

Notice of Proposed Award

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Rank Number	Project Applicant	Title	Energy Commission Funds Requested	Energy Commission Funds Recommended	Match Funds	Score	Award Status
Proposed Award							
1	Zeco Systems d.b.a. Greenlots	Improving Commercial Viability of Fast Charging by Providing Renewable Integration and Grid Services with Integrated Multiple DC Fast Chargers	\$826,250	\$826,250	\$302,008	90.83	Awardee
2	Board of Trustees of the Leland Stanford Junior University (SLAC National Accelerator Laboratory)	SCRIPT (Smart Charging Infrastructure Planning Tool)	\$1,500,000	\$1,500,000	\$94,193	84.06	Awardee
Total Funding Recommended			\$2,326,250	\$2,326,250	\$396,201		



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Applied Research and Development Program Area:

Group 1: *Smart and Efficient Charging of PEVs*

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Passed but Not Funded							
3	The Regents of the University of California, Davis	Demonstration of a Smart PEV Charging System using Second Life Energy Storage to Maximize Renewable Generation	\$1,495,149	\$0	\$281,173	81.21	Finalist
4	Gridscape Solutions, Inc.	Smart Grid Aware Distributed DC Fast Charging Solution	\$1,500,000	\$0	\$20,000	81.10	Finalist
5	PowerFlex Systems, LLC	Adaptive Charging Network for Electric Vehicles and Renewable Integration	\$750,000	\$0	\$10,000	79.93	Finalist
6	Clean Power Research, LLC	California Smart Grid PEV Charging	\$1,041,091	\$0	\$250,000	78.58	Finalist
7	The Regent of the University of California, Los Angeles	Smart and Efficient Charging of PEVs	\$1,500,000	\$0	\$0	76.98	Finalist
Total			\$6,286,240	\$0	\$561,173		



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Applied Research and Development Program Area:

Group 1: *Smart and Efficient Charging of PEVs*

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Did Not Pass							
	The Regents of the University of California, Riverside: CE-CERT	Optimized Large Vehicle Battery Recycling for Grid Integrated Applications	\$996,638	\$0	\$1,324,251		Did Not Pass
	Electric Power Research Institute	Smart and Efficient Charging Enabled by Transportation Electrification SB350 and CPUC R.13-11-007 through End to End Secure, Open and Scalable Infrastructure	\$969,008	\$0	\$500,300		Did Not Pass
	Willdan Energy Solutions	BART Vehicle Grid Integration (BVGI)	\$1,464,036	\$0	\$294,000		Did Not Pass
	Willdan Energy Solutions	Smart Control of Load Using Electric Vehicle Fleet as Grid Resource (CLEVER)	\$1,458,162	\$0	\$245,500		Did Not Pass
	University Enterprises, Inc. on behalf of CSU Sacramento	Research and Development of an Optimized PEV Aggregator Agent	\$566,768	\$0	\$0		Did Not Pass
Total			\$5,454,612	\$0	\$2,364,051		
Grand Total			\$14,067,102	\$2,326,250	\$3,321,425		



California Energy Commission

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Advanced Vehicle-Grid Integration Research and Demonstration

Applied Research and Development Program Area:

Group 2: *Advanced VGI Technologies and Methods*

Notice of Proposed Awards

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Rank Number	Project Applicant	Title	Energy Commission Funds Requested	Energy Commission Funds Recommended	Match Funds	Score	Award Status
Proposed Awards							
1	Electric Power Research Institute	Open Vehicle to Building/Microgrid Integration Enabling ZNE and Improved Distribution Grid Services	\$1,500,000	\$1,500,000	\$2,341,000	89.93	Awardee
2	Lawrence Berkeley National Laboratory	Advanced VGI Controls to Maximize Battery Storage for Grid Services and Renewable Power Penetration at LA Air Force Base	\$1,500,000	\$1,500,000	\$0	82.03	Awardee
Total Funding Recommended			\$3,000,000	\$3,000,000	\$2,341,000		
Did Not Pass							
	The Regents of the University of California, Davis	Development of V2G Integration in Solar-Battery Microgrid for Improved Power Quality and Maximized Renewable Share	\$1,063,084	\$0	\$181,173		Did Not Pass
	The Regent of the University of California, Los Angeles	Distributed User-Interactive Vehicle to Grid (V2G) Energy Management System	\$1,500,000	\$0	\$0		Did Not Pass
Total			\$2,563,084	\$0	\$181,173		
Grand Total			\$5,563,084	\$3,000,000	\$2,522,173		



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Advanced Vehicle-Grid Integration Research and Demonstration

Applied Research and Development Program Area:
Group 3: *Advanced Technologies for PEV Batteries*

Notice of Proposed Awards

February 8, 2017

Rank Number	Project Applicant	Title	Energy Commission Funds Requested	Energy Commission Funds Recommended	Match Funds	Score	Award Status
<i>Proposed Awards</i>							
Total Funding Recommended			\$0	\$0	\$0		



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Applied Research and Development Program Area:
Group 3: *Advanced Technologies for PEV Batteries*

Notice of Proposed Awards

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Passed but Not Funded							
1	Andromeda Power, LLC	SOLDER: SecOnd Life battery as Distributed Energy Resource	\$907,974	\$0	\$456,000	80.30	Finalist
Total			\$907,974	\$0	\$456,000		
Did Not Pass							
	FreeWire Technologies, Ltd.	Retrofitted EV Battery Viability For Second-Use Applications	\$944,360	\$0	\$1,040,494		Did Not Pass
	Farasis Energy, Inc.	Economic Evaluation and Environmental Impact Assessment of Direct Recycling Process for Li-ion batteries in California	\$900,000	\$0	\$100,000		Did Not Pass
Total			\$1,844,360	\$0	\$1,140,494		
Grand Total			\$2,752,334	\$0	\$1,596,494		