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Notice of Funding Opportunity

Title: California Energy Commission – Vehicle-Grid Innovation Lab (ViGIL)
Website: <https://www.energy.ca.gov/solicitations/2021-05/gfo-20-610-vehicle-grid-innovation-lab-vigil>
Funding: Total: \$2,000,000. Maximum awards: \$2M, depending on project.
Dates: Pre-Application Workshop: June 1, 2021 10AM
Questions Deadline: June 8, 2021
Application Submission Deadline: July 16, 2021

Summary: The California Energy Commission's (CEC's) Clean Transportation Program (formerly known as the Alternative and Renewable Fuel and Vehicle Technology Program) announces the availability of up to \$2 million in grant funds to increase the capacity and throughput of electric vehicle supply equipment (EVSE) standards testing at a laboratory. This funding may support expansion of testing of both light-duty and medium- and heavy-duty electric vehicle (EV) charging equipment. The Vehicle-Grid Innovation Lab(s) (ViGIL) will provide a timely and cost-effective avenue for stakeholders to validate and test their products for conformance to established standards. ViGIL will also promote innovation and the development and commercialization of advanced products to address current, and future, market needs. Testing at funded laboratories is voluntary and is not mandatory for entities to do business in California. ViGIL may be complemented by work performed by the awardee of a CEC Vehicle Inter-Operability Testing Symposiums (VOLTS) Request for Proposals (RFP). ViGIL will support four key policy objectives for electric vehicle charging equipment: 1) Interoperability – Standardized devices that are capable of functioning as intended with each other, without special effort from the user; 2) Competition and Customer Choice – Standardized, open charging systems that ensure easy access by all in a competitive and highly integrated market; 3) Cost Control – Assist grid and renewables management and reduce fuel costs for drivers who charge in a manner consistent with grid conditions; 4) Convenience – Ensure that the employed technologies work in a harmonious manner and across service territories.

Project Topic Areas:

CEC funding must only be used to support expansion of testing capacity and throughput for the following categories of products (e.g., reimbursable costs for staff salaries for expanded throughput must be used for work testing the types of products provided below, not other types of products): Level 2 AC: Conductive and Wireless Charging; DC: Conductive Charging; High-Powered: Conductive, Wireless, and Pantograph Charging. Within these three product categories, the eligible interfaces are defined as follows: SAE J1772 – Electric Vehicle and Plug-In Hybrid Electric Vehicle Conductive Charge Coupler; Combined Charging System (CCS/Combo 1) – Combines AC and DC charging into one interface; CHAdeMO – DC charging protocol; SAE J2954 – Wireless Power Transfer for Light-Duty Plug-In/Electric Vehicles; CharIN Megawatt Charging System (MCS) – Charging for class 6, 7, and 8 commercial vehicles, buses, aircraft and other battery electric vehicles; SAE J3105 – Electric Vehicle Power Transfer System Using Conductive Automated Connection Devices (all three form factors listed in this standard); SAE J3072 – Interconnection Requirements for Onboard, Utility-Interactive Inverter Systems. Proposed projects are restricted to the listed requirements described above. If an Applicant offers services for additional standards, products, and interfaces, those services are not eligible costs (either as reimbursable or match share) under the resulting agreement and those services will not be considered during the evaluation process.

Funding:

A total of \$2 million is available under this solicitation. The CEC, at its sole discretion, reserves the right to increase or decrease the amount of funds available under this solicitation. The maximum award amount is \$2 million. Projects are eligible for up to 50 percent of the total project costs, or \$2 million, whichever is less. Applications must include at least 50 percent of the total allowable project costs as match share and a minimum cash contribution equal to at least 50 percent of the minimum match requirements. Costs

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incurred for the following are eligible for CEC reimbursement or as the Applicant's match share: Facility design, engineering plans, and specifications; Building and facilities installations and/or modifications; Assets, materials and supplies, and equipment acquisition; Staff training and associated labor costs. Applicants may only submit one application under this solicitation.

Project Requirements:

Projects must either: 1) develop EVSE testing capacity at an existing facility in California; or 2) or expand EVSE testing capacity at an existing facility in California. EVSE testing capacity is defined through static metrics including, but not limited to: Testing staff, including engineering staff; Number of test devices; Number and types of tests offered. Additionally, projects must increase the throughput of tested products. Throughput is defined through dynamic metrics including, but not limited to: Number of products tested per quarter, and Number and types of form factors tested. Applicants must identify the metrics they plan to use to demonstrate developed or expanded testing capacity and increased throughput in the application. These will be measured and reported to the CEC based on capabilities before and during the project. Testing at funded projects is voluntary and is not mandatory for entities to do business in California. Project award(s) will only fund the expansion of capacity and throughput testing, not certification. Test results may be delivered to the appropriate certification body by the laboratory or the recipient of the testing services. The Recipient will be responsible for ensuring the proper functionality of all testing equipment and must operate and conduct testing for at least five years from the date the agreement term ends.

Proposed projects must expand capacity and throughput of testing for established standards and protocols. Testing facilities must be updated as needed to offer testing services for the most recent published versions of standards and testing procedures as these are made available for the duration of the agreement. At a minimum, through the acquisition of necessary equipment, engineering staff, and other resources, proposed projects must be capable of performing the necessary testing to facilitate compliance with standards #1, #2, and #3 listed below, or their available latest versions, so that they perform their associated use cases listed below. Additionally, the Applicant may optionally offer to add testing for standards #4 and/or #5 listed below and their associated use cases, but this is not a requirement. ISO 15118; Open Charge Point Protocol (OCPP); Section 3.40 of the National Institute of Standards and Technology (NIST) 2020 Handbook 44 (Electric Vehicle Fueling Systems); IEC 62746-10-1 (2019) (Open Automated Demand Response 2.0b); ENERGY STAR® for Electric Vehicle Supply Equipment.

Eligible Applicants:

The Applicant must be a testing laboratory independent of the EV industry in order to be eligible. An Applicant is considered independent of the EV industry if it does not commercially produce EVs, EV chargers, or EV testing equipment, and does not provide management software or network services for EV charging. The laboratory must commercially test products from variety of entities and manufacturers, and must not be owned by a government or public entity. The Applicant must conduct this project at an existing facility located in California with the goal to expand capacity and accelerate throughput of EVSE testing in California. This solicitation does not require the existing facility to have current EV charging equipment, electrical, or communications testing capabilities in order to submit an application. However, the evaluation criteria will consider the Applicant's experience and expertise in EV charging equipment testing, as well as the facility's existing capabilities and readiness level.