



GFO-22-615 Pre-Application Workshop

Innovative Charging Solutions for Medium- and Heavy-Duty Electric Vehicles

Fuels and Transportation Division, California Energy Commission

Presenter: Kate Reid

May 18, 2023 | 10:00 am



Workshop Agenda

- Welcome and Introductory Information
- Solicitation Overview
 - Purpose
 - Available Funding
 - Eligibility and Project Requirements
- Application Requirements
 - Two-Stage Process
 - Attachments
 - Evaluation Process
- Questions & Answers
- Next Steps
- Adjourn



Virtual Housekeeping

- This workshop will be recorded.
- Participants will be muted during the presentation until the Q&A session.
- Please enter questions in the Q&A window on Zoom.
- Chat has been disabled.
- [Grant Funding Opportunity Webpage:](https://www.energy.ca.gov/solicitations/2023-05/gfo-22-615-innovative-charging-solutions-medium-and-heavy-duty-electric)
<https://www.energy.ca.gov/solicitations/2023-05/gfo-22-615-innovative-charging-solutions-medium-and-heavy-duty-electric>



Commitment to Diversity

The CEC adopted a resolution strengthening its commitment to diversity in our funding programs. The CEC continues to encourage disadvantaged and underrepresented businesses and communities to engage in and benefit from our many programs.

To meet this comment, CEC staff conducts outreach efforts and activities to:

- Engage with disadvantaged and underrepresented groups throughout the state;
- Notify potential new applicants about the CEC's funding opportunities;
- Assist applicants in understanding how to apply for funding from the CEC's programs;
- Survey participants to measure progress in diversity outreach efforts.



We Want to Hear From You!



Scan the code on a phone or tablet with a QR reader to access the survey.

Participation Survey

Survey responses will be summarized anonymously to track attendance of underrepresented groups in our workshops for public reporting purposes.

Online Participants, please use the link below to access the survey or scan the QR code on the left of the screen with a phone or tablet to access the survey.

Survey Link: <https://forms.office.com/g/nkBwgAeUXQ>



Find Partners on EmpowerInnovation.net

Empower Innovation strives to accelerate your clean tech journey with easy access to funding opportunities from the CA Energy Commission and other funding providers, resources and events, and connections to people and organizations.

www.empowerinnovation.net

FIND A PARTNER

Announce your interest in this funding opportunity and message other interested project partners directly.

RESOURCES & TOOLS

Browse the collection of resources including Resource Libraries, Funding Sources, Tools, and Databases.

<https://www.empowerinnovation.net/en/custom/funding/view/38611>



Clean Transportation Program

- Established in 2007 by Assembly Bill 118 (Núñez, 2007)
- Extended to January 1, 2024, by Assembly Bill 8 (Perea, 2013)
- Provides approximately \$95 million of funding per year through 2023
- Investment Plan determines funding allocations across various categories
- Supports workforce training and development



California Budget Acts of 2021 and 2022

- The Budget Act of 2021 and 2022 appropriated \$785 million from the General Fund to support infrastructure deployments and manufacturing projects for zero-emission light-duty and medium- and heavy-duty vehicles.

ZEV 1.0

Beginning with
FY 2021-22

- **\$1.165 Billion**
- Over 3 years

ZEV 2.0

Beginning with
FY 2021-22

- **\$2.415B**
- Over 5 years



Policy Drivers

- **Executive Order N-79-20:**
 - 100% medium- and heavy-duty vehicles be zero-emission by 2045 for all operations where feasible and 2035 for drayage trucks
 - 100% zero-emission off-road vehicles and equipment by 2035 where feasible
- 2022-2023 Investment Plan Update for the Clean Transportation Program
- Assembly Bill 2127 Electric Vehicle Charging Infrastructure Assessment – Analyzing Charging Needs to Support Zero-Emission Vehicles in 2030



Solicitation Overview

GFO-22-615

Innovative Charging Solutions for
Medium- and Heavy-Duty Electric Vehicles



Purpose of Solicitation

- Competitive grant solicitation
- Demonstrate transformative technology solutions and work to accelerate the successful commercial deployment of medium- and heavy-duty (MD/HD) electric vehicle (EV) charging employing:
 - Innovative Business Models
 - Innovative Technologies



Eligible Applicants

- This is an open solicitation for public and private entities.
- Partnering with local government agencies highly encouraged
- Applicants must accept the grant's Terms and Conditions, without negotiation
- Applicants are encouraged to register with the California Secretary of State, as all recipients **must** be registered and be in good standing to enter into an agreement with the CEC: <http://www.sos.ca.gov>



Available Funding

A total of \$20 million is available under this solicitation

Project Group	Total Funding Available	Minimum Award Amount	Maximum Award Amount	Minimum Match Funding Required (Percent of CEC Funds Requested)
Group 1: Innovative Business Models	\$20,000,000	\$2,000,000	\$10,000,000	25 percent
Group 2: Innovative Charging Technologies		\$2,000,000	\$5,000,000	25 percent



Examples of Project Types

Innovative Business Models

(install and deploy 25+ chargers)

- Truck Parking
- Truck Stops/Charging Hubs
- Charging Corridors
- Mobility-as-a-Service

Innovative Technologies

(install and deploy 10+ chargers)

- Large-Scale Fast Charging (150+ kW)
- Interoperability for MD/HD Vehicles
- Battery Swapping
- Hydrogen-Based Electric Vehicle Charging
- Pantograph and Catenary System
- Wireless and/or Inductive Charging
- Vehicle-to-Everything (V2X) Technology



Project Requirements

All projects must:

- Deploy and demonstrate innovative charging technologies and/or business models that support the decarbonization of MD/HD on-road and/or off-road vehicle applications and improve reliability
- Innovative Business Model projects must install a minimum of 25 MD/HD chargers
- Innovative Technology projects must install a minimum of 10 MD/HD chargers
- All demonstrations must be installed in California
- Each project must provide a minimum of 12 months data collection on deployed charging equipment
- All projects must develop a charging infrastructure Blueprint



Project Costs

Eligible project costs include:

- Electric vehicle supply equipment (EVSE)
- Applicant's cost-share of utility installation:
 - Transformers, electric panels, conduit, wiring, meters
- Distributed energy resources or energy storage equipment/systems capable of providing independent or supplemental power to the EV chargers (separately metered)
- Photovoltaic solar panels separately metered for electric charging
- Installation costs
- Planning and engineering design costs
- Stub-outs
- Demand management equipment
- Equipment maintenance and warranties during the term of the agreement
- Vehicle powertrain and battery packs used for vehicle-to-vehicle charging



Ineligible Projects

- Market, literature, or technology surveys, or meta-analysis studies
- Basic research and development
- Tests for regulatory compliance
- Marketing and promotional activities
- Software development with no research or validation component
- Lab-scale research and validation
- Research and development that is not electric vehicle-related and has no clear market connection
- Proof of functions
- Projects that do not deploy chargers or the related infrastructure to support MD/HD ZEV charging
- Vehicle purchases
- Nonrenewable DERs



Match Funding

- Applicants must include a minimum of **25% match share**
 - 25% of total allowable project costs (i.e. sum of CEC share + Recipient's Match share)
 - 25% of total match must be cash

Examples:

- If the project costs \$3 million, at least \$750,000 must be match (CEC share would be \$2.25 million)
 - Of that \$750,000 match share, at least \$187,500 must be cash match
- If the project costs \$8 million, at least \$2 million must be match (CEC share would be \$6 million)
 - Of that \$2 million match share, at least \$500,000 must be cash match



Two-Stage Evaluation Process

The evaluation process will consist of two stages:

1. Pre-Application Abstract Screening and Scoring
2. Full Application Screening and Scoring



Stage 1: Pre-Application Abstracts

Innovative Charging Solutions for
Medium- and Heavy-Duty Electric Vehicles



Pre-Application Abstract Attachments

Item	Action Needed by Applicant
Pre-Application Abstract Form (Attachment 1A)	Complete the attachment
Pre-Application Project Abstract	Create document
Past Performance Reference Form (Attachment 11)	Complete the attachment



Pre-Application Abstract Form (Attachment 1A)

- Applicants must complete Attachment 1A
- Signature requirement on the application form is waived



Pre-Application Abstract

- **Applicants must submit a Pre-Application Abstract**
- Limited to 5 pages
- Use 11-point font, single-spaced and a blank line between paragraphs
- Include page numbers
- **Project Narrative must address each scoring criterion which directly correlate to the Evaluation Criterion**

- b. **Project Summary**
1. Describe the proposed project, including which Project Group it addresses and how the project will accelerate the successful commercial deployment of the proposed innovative technology or business model.
 2. Describe how the proposed project is innovative and provides competitive advantages over conventional charging solutions and/or business models.
 3. Describe the proposed project's target market and economic viability.
- c. **Project Readiness and Implementation**
1. If the technology or business model within the proposed

Pre-Application Abstract Evaluation Criteria	Possible Points
<p>1. Project Summary</p> <p>Pre-Application Abstracts will be evaluated on the degree to which:</p> <ul style="list-style-type: none"> • The proposed project accelerates successful commercial deployment of innovative technologies and/or business models principally designated by the Applicant in the specified Project Group (Section II.B.1). • The proposed project is innovative and provides competitive advantages over conventional and existing charging solutions and/or business models. • The proposed project will lead to a successful and economically 	25



Past Performance Reference Form (Attachment 11)

- Applicants must complete Attachment 11 to provide references for:
 - Agreements with the CEC received by the Applicant in the last 10 years
 - The five most recent agreements with other public agencies received by the Applicant within the past 10 years
- References must include a contact person name and phone number or email address. These persons may be contacted by CEC staff
- Applicants should fill out a separate Past Performance Reference Form for each agreement reference
- If no previous agreements, no form necessary



How will my Application be Evaluated?

Pre-Application Abstract Screening

Admin Screening Process

- CEC staff screens Pre-Application Abstracts per criteria in Section V.A.
- Criteria are evaluated on a pass/fail basis.
- Applicants must pass all screening criteria or the Pre-Application Abstract will be disqualified.

Some Reasons for Disqualification

- Pre-Application Abstract is not submitted by the specified due date and time.
- Pre-Application Abstract addresses more than one project group.



How will my Application be Evaluated? Pre-Application Abstract Scoring

- Evaluation Committee applies the scoring scale to the scoring criteria.
- Pre-Applications Abstracts must obtain a **minimum passing score of 35 points** in order to continue evaluation for the Full Application Phase.
- Review Section V.E. of the manual and ensure the application provides a clear and complete response to each scoring criteria.

Scoring Criteria	Maximum Points
1. Project Summary	25
Minimum Passing Score for Criterion 1	17.5
2. Project Readiness and Implementation Schedule	15
Minimum Passing Score for Criterion 2	10.5
3. Project Benefits and Cost Effectiveness	10
Minimum Passing Score for Criterion 3	7
Total	50
Minimum Points to Pass	35



Stage 2: Full Applications

Innovative Charging Solutions for
Medium- and Heavy-Duty Electric Vehicles



Application Organization

Item	Action Needed by Applicant
Application Form (Attachment 1)	Complete the attachment
Project Narrative	Create document
Scope of Work (Attachment 3)	Complete the attachment
Schedule of Products and Due Dates (Attachment 5)	Complete the attachment
Budget Forms (Attachment 6)	Complete the attachment
Resumes	Create document(s)
Contact List (Attachment 7)	Complete the attachment
Letters of Support/Commitment	Create document(s)
CEQA Worksheet (Attachment 8)	Complete the attachment
Localized Health Impacts Information Form (Attachment 9)	Complete the attachment
Past Performance Reference Form(s) (Attachment 11)	Complete the attachment(s)
<i>Scope of Work Instructions (Attachment 4)</i>	<i>None</i>
<i>Zero-Emission Vehicle Infrastructure Terms and Conditions (Attachment 10)</i>	<i>None</i>



Project Narrative

- **Applicants must submit a project narrative**
- Limited to 20 pages
- Use 11-point font, single-spaced and a blank line between paragraphs
- Include page numbers
- **Project Narrative must address each scoring criterion which directly correlate to the Evaluation Criterion**

The Project Narrative must respond directly to each criterion with the headings as titled below, and must include the following information:

- a. **Innovation**
 - i. Describe the proposed project, including which Project Group it addresses and how the project will accelerate the successful commercial deployment of the proposed innovative technology or business model.
 - ii. Describe how the proposed project is innovative and provides competitive advantages over conventional and

Full Application Evaluation Criterion	Possible Points
<p>1. Innovation Applications will be evaluated on the degree to which:</p> <ul style="list-style-type: none"> • The proposed project accelerates successful commercial deployment of innovative technologies and/or business models principally designated by the Applicant in the specified Project Group. • The proposed project is innovative and provides competitive advantages over conventional and existing charging solutions and/or business models. • Key indicators demonstrate the market opportunity for the proposed project to provide a successful, scalable solution that fills a niche for charging solutions in California. • The proposed project utilizes innovative network communication 	45



Table of Contents

- The Project Narrative must include a Table of Contents
- Table of Contents will not count towards the 20-page limit



Scope of Work (Attachment 3)

- Applicants must complete Attachment 3
- Describe exactly what the project will do
- Identify what will be delivered to the CEC
- Be sure to include in the technical tasks:
 - At least one product deliverable per task



Schedule of Products and Due Dates (Attachment 5)

- Applicants must complete Attachment 5
- Add tasks and product deliverables that correspond to the Scope of Work
- Provide realistic dates for when product deliverables can be completed



Proposal Budget (Attachment 6)

- Applicants must complete Attachment 6
- Follow Budget Instructions
- Identify how CEC funds and match funds will be spent to complete the project
- For more information on updates to the CEC budget forms, visit the [CEC ECAMS Resources](https://www.energy.ca.gov/funding-opportunities/funding-resources/ecams-resources) webpage at <https://www.energy.ca.gov/funding-opportunities/funding-resources/ecams-resources>



Resumes

- Applicants must include resumes for key personnel identified in the application
- Resumes are limited to a maximum of 2 pages each



Contact List (Attachment 7)

- Applicants must complete Attachment 7
- Include the appropriate points of contact under the Recipient column
- The CEC will complete the CEC points of contact during agreement development



Letters of Support/Commitment

- Applicants must include appropriate Letters of Commitment from:
 - Entities or individuals that are committing match funding (if applicable)
 - Key project partners that will make contributions to the project (if applicable)
- Applicants may include Letters of Support
- Limit of two pages per letter



CEQA Form (Attachment 8)

- Applicants must complete Attachment 8
- The CEC requires this information to assist in making its own CEQA determination
- Ensure CEQA information is provided in a timely manner to avoid cancellation of proposed award



Local Health Impacts Information Form (Attachment 9)

- Applicants must complete Attachment 9
- The CEC requires this information for a Localized Health Impacts report



Past Performance Reference Form (Attachment 11)

- Applicants must complete Attachment 10 to provide references for:
 - Agreements with the CEC received by the Applicant in the last 10 years
 - The five most recent agreements with other public agencies received by the Applicant within the past 10 years
- References must include a contact person name and phone number or email address. These persons may be contacted by CEC staff
- Applicants should fill out a separate Past Performance Reference Form for each agreement reference
- If no previous agreements, no form necessary



How will my Full Application be Evaluated?

Full Application Screening

Admin Screening Process

- CEC staff screens applications per criteria in Section VII.A.
- Criteria are evaluated on a pass/fail basis.
- Applicants must pass all screening criteria or the application will be disqualified.

Some Reasons for Disqualification

- Full Application is not submitted by the specified due date and time.
- Full Application does not include one or more support letters.
- Full Application contains confidential material.



How will my Full Application be Evaluated?

Full Application Scoring

- **Evaluation Committee applies the scoring scale to the scoring criteria.**
- **Full Applications must obtain a **minimum passing score of 45.5 points for Criteria 1-2** in order to continue evaluation.**
- **Full Applications must obtain a **minimum passing score of 70 points** in order to be considered for funding.**
- **Review Section VII.E. of the manual and ensure the application provides a clear and complete response to each scoring criteria.**

Scoring Criteria	Maximum Points
1. Innovation	45
Minimum Passing Score for Criterion 1	31.5
2. Project Readiness and Implementation	20
Minimum Passing Score for Criterion 2	14
3. Economic, Social, and Environmental Benefits	15
4. Team Experience, Qualifications, and Resources	10
5. Project Budget	10
Total	100
Minimum Points to Pass	70



Disadvantaged Communities and Low-Income Communities

- Projects with demonstration sites located in disadvantaged and/or low-income communities and justifies how the project will benefit these communities may receive additional points
- Applications should:
 - Identify economic impacts such as customer bill savings and job creations
 - Increase access to clean energy or sustainability technologies
 - Have letters of support from technology partners, community-based organizations, environmental justice organizations, or other partners



Identifying Disadvantaged Communities

These areas represent the **25% highest scoring census tracts in CalEnviroScreen**, along with other areas with high amounts of pollution and low populations.

<https://oehha.ca.gov/calenviroscreen/sb535>

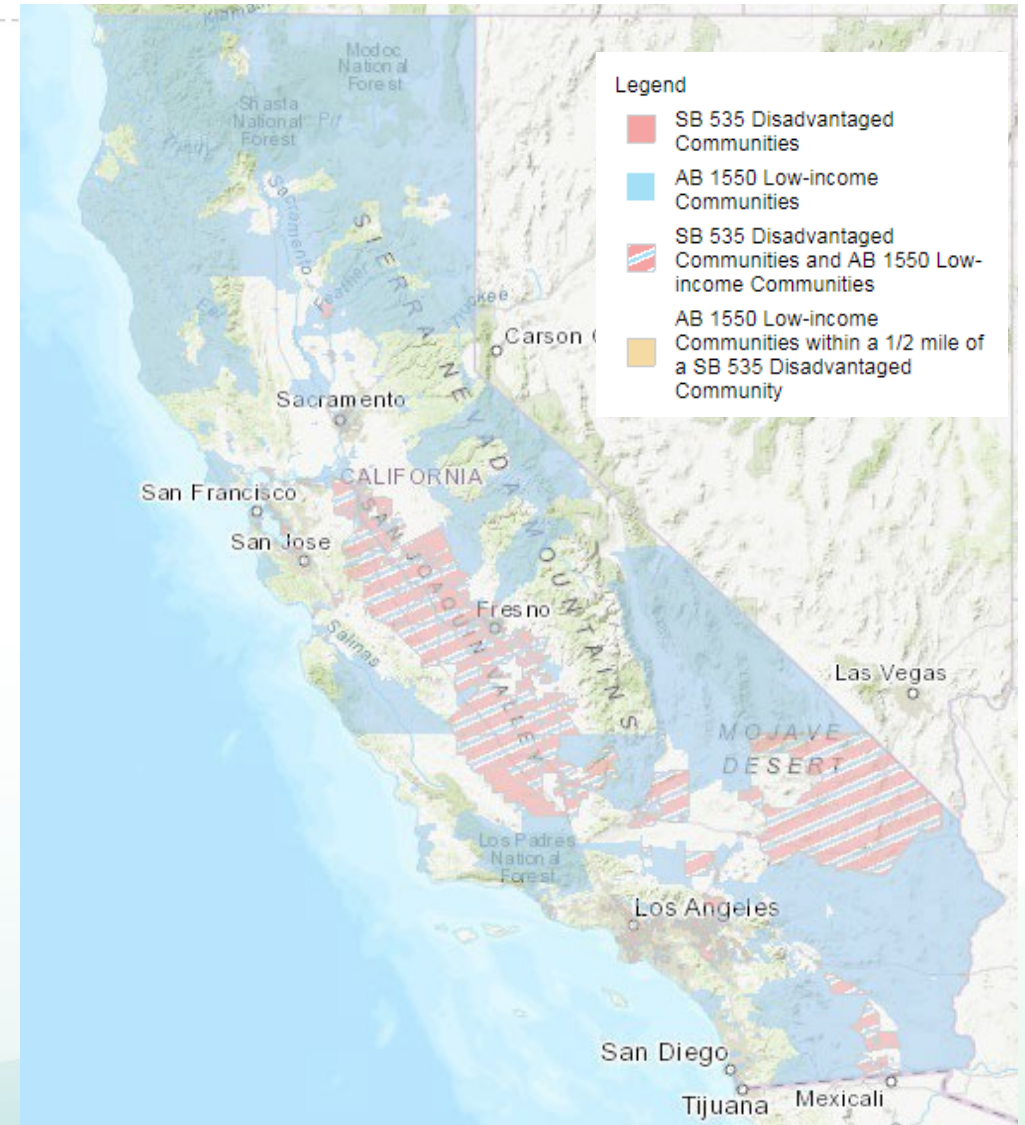




Identifying Low-Income Communities

Use CARB's Priority Population Map to determine SB 523 low-income communities

<https://www.arb.ca.gov/cc/capandtrade/auctionproceeds/communityinvestments.htm>





Submission Requirements

The method of delivery is the CEC's Grant Solicitation System (GSS), available at: <https://gss.energy.ca.gov>

- First time users must register as a new user
- Electronic files must be in Microsoft Word and Excel formats, unless originally provided in the solicitation in another format
- Until further notice, any requirement in CEC solicitations to provide a signature is waived. In the GSS, checking the "I Agree" box and clicking the "I Agree & Submit" button provides the required authorizations and certifications

Notice on CEC's waiver of the signature requirement appears here: <https://www.energy.ca.gov/funding-opportunities/solicitations>

- Grant Solicitation System (GSS) How to Apply presentation: <https://www.energy.ca.gov/media/1654>



Grant Solicitation System (GSS)

START THE PROCESS EARLY!

- Applications must be fully submitted **BEFORE** the deadline listed in the solicitation manual
- **The GSS system will shut off at the deadline**
- Applications in the process of being submitted prior to the deadline will **NOT** be accepted after the deadline
- Applications will **NOT** be accepted after the deadline



GSS Structure

- Register as a New User
- Log In
- 3 Step Application Process:
 1. Select Solicitation
 2. Upload Files
 - Select documents for upload
 - Tag files with document type
 3. Review and Submit

All three steps must be complete BEFORE each application deadline



Next Steps After Proposal Evaluation

Notice of Proposed Abstract Results (NOPAR): Shows pass/fail results of the pre-application abstract screening and scoring process.

Notice of Proposed Award (NOPA): Shows rank order results of the full application screening and scoring process and the amount of each proposed award.

Agreement Development: Proposal documents will be processed into a legal agreement for approval at a CEC Business Meeting.

Failure to Execute: CEC reserves the right to cancel the pending award if an agreement cannot be successfully executed with an applicant.

Project Start: Recipients may begin reimbursable work on the project only **after** the agreement is fully executed (approved at a CEC Business Meeting and signed by the Recipient and CEC).



Key Activities and Dates

Activity	Date
Solicitation Release	May 8, 2023
Pre-Application Workshop	May 18, 2023 at 10:00 am PST
Deadline for Written Questions	May 26, 2023
Anticipated Distribution of Questions and Answers	Week of June 5, 2023
Deadline to Submit Pre-Application Abstracts	June 23, 2023 by <u>11:59 pm PST</u>
Anticipated Notice of Pre-Application Abstracts Results (NOPAR) Posting Date	July 28, 2023
Deadline to Submit Full Applications	September 8, 2023 by <u>11:59 pm PST</u>
Anticipated Notice of Proposed Award (NOPA) Posting	Week of October 23, 2023
Anticipated CEC Business Meeting	January 2024
Anticipated Agreement Start Date	January 31, 2024
Anticipated Agreement End Date	March 31, 2026



Questions & Answers

Three ways to ask questions:

1. Use the raise hand feature in Zoom:

- Zoom phone controls:
 - *6 – Toggle mute/unmute
 - *9 – Raise hand
- Introduce yourself by stating your name and affiliation
- Keep questions under 3 minutes to allow time for others

*An official CEC response will be provided in writing and posted on the GFO web page in approximately 3 weeks.

2. Type Questions in the Q&A Box in Zoom:

- Provide your name and affiliation.

3. Submit Written Questions to:

[Eunice Lemos-Adair@energy.ca.gov](mailto:Eunice.Lemos-Adair@energy.ca.gov)

by May 26, 2023 @ 5 PM PST



Additional Questions

Please send all questions related to GFO-22-615 to:

Eunice Lemos-Adair, Commission Agreement Officer

Eunice.Lemos-Adair@energy.ca.gov

715 P Street, MS-1

Sacramento, California 95814

916-776-3162

Deadline to submit Questions: Friday, May 26, 2023 at 5:00 PM PST

Deadline to submit Pre-Application Abstracts: June 23, 2023 by 11:59 PM PST

Deadline to submit Full Applications: September 8, 2023 by 11:59 PM PST