



GFO-20-605 Pre-Application Workshop: BESTFIT Innovative Charging Solutions

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Fuels and Transportation Division
August 18, 2020



Housekeeping

- Muting on Zoom
- Zoom recording
- Questions & Answers
- Updates on solicitation documents including this presentation will be posted at the Grant Funding Opportunity's webpage:
<https://www.energy.ca.gov/solicitations/2020-08/gfo-20-605-bestfit-innovative-charging-solutions>



Agenda

Welcome and Introductions

Solicitation Overview

- Clean Transportation Program
- Purpose of Solicitation
- Available Funding
- Application Requirements
- Project Requirements
- Attachments
- Submission Process

Questions and Answers



Commitment to Diversity

The California Energy Commission (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 commitment, 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.



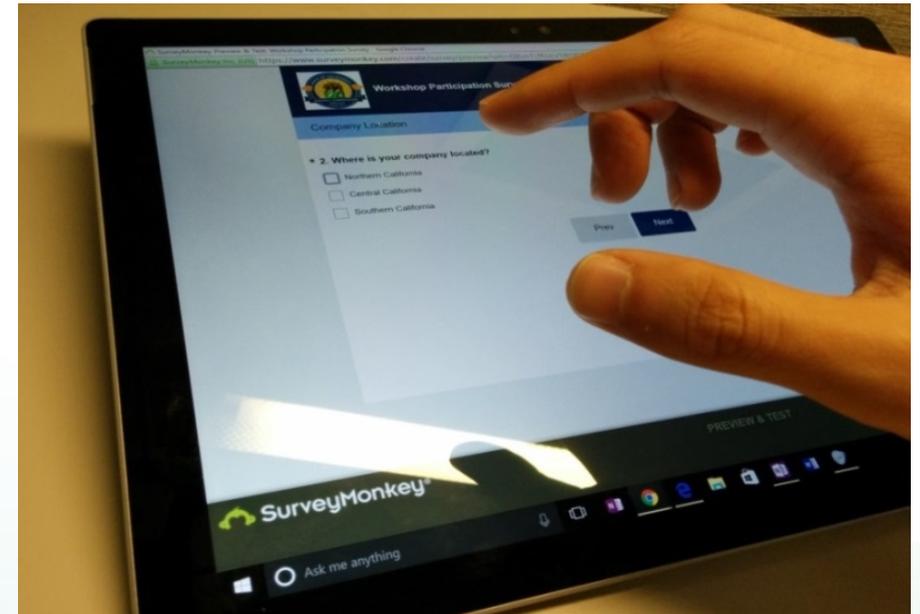
We Want to Hear From You!

One Minute Survey

The information supplied will be used for public reporting purposes to display anonymous overall attendance of diverse groups.

- Please use [this link to the survey](#):

<https://forms.office.com/Pages/ResponsePage.aspx?id=RBI6rPQT9k6NG7qicUgZToLxoNHYLs9Fs9nLifXVBrxUME02OVFLM0xKNjBER0I5STBJM1Q0SDNaWC4u>



Thanks!



Find a Partner on EmpowerInnovation.net

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

FIND A PARTNER

Announce your interest in this funding opportunity and message other interested parties to find potential partners.

RESOURCES & TOOLS

Browse the collection of resources for clean tech innovators including Resource Libraries, Funding Sources, Tools, and Databases.

To connect with others for this GFO please go to [this link](https://www.empowerinnovation.net/en/custom/funding/view/11946):
<https://www.empowerinnovation.net/en/custom/funding/view/11946>

Please direct questions for the Empower Innovation platform to:
https://www.empowerinnovation.net/en/contact_us



Clean Transportation Program

- This solicitation will award projects funded by the **Clean Transportation Program**
 - Formerly known as the Alternative and Renewable Fuel and Vehicle Technology Program
- Established by Assembly Bill 118 (Nunez, 2007)
- Has an annual budget of approximately \$100 million
- Extended to January 1, 2024 by Assembly Bill 8 (Perea, 2013)



Clean Transportation Program

“...to develop and deploy innovative technologies that transform California’s fuel and vehicle types to help attain the state’s climate change policies.”

- California Health and Safety Code 44272(a)

Complementary goals:

- Improve air quality.
- Invest in low-income and disadvantaged communities.
- Promote economic development.
- Increase alternative fuel use.
- Reduce petroleum dependence.



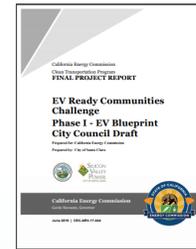
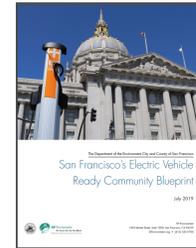
BESTFIT Innovative Charging Solutions



Purpose of Solicitation

manual pg. 5

- Demonstrate transformative technology solutions and work to accelerate the successful commercial deployment of electric vehicle charging for both light-duty and medium- and heavy-duty (MD/HD) applications
- EV Ready Communities Challenge highlighted that there is no “one size fits all” solution



Source: California Energy Commission staff



Available Funding

manual pg. 7

| Vehicle Sector | Area of Focus | Maximum Award Amount | Total Funding Available |
|----------------|--|---------------------------------|-------------------------|
| Light-Duty | Increase Utilization | Up to \$1 million per applicant | \$3.5 million |
| | Minimize Operation, Purchase, and/or Installation Costs | | |
| MD/HD | Demonstrate Advancements in Customer or Charging Interface | Up to \$2 million per applicant | \$4 million |
| | Minimize Operation, Purchase, and/or Installation Costs | | |
| | Demonstrate Advancements in Customer or Charging Interface | | |



Area of Focus 1: Increase Utilization

manual pg. 13

- This category addresses projects designed to increase or maximize efficient utilization of charging infrastructure
- The goal is to increase the throughput of electric miles serviced to EVs by each charger through the creation of new business models that leverage innovative placement and locations, user sharing, queuing, vehicle management technologies, and other strategies
- Only available for light-duty projects



Area of Focus 2: Minimize Operating, Purchase, and/or Installation Costs

manual pg. 13

- This category addresses efforts to maximize the benefits of charging installations by avoiding high operating, purchase, and installation costs as well as costly grid impacts
- The goal for innovative charging solutions like smart charging and discharging, energy management systems, and distributed energy resources (DERs) is to minimize peak energy use and demand charges as well as defer or outright avoid grid capacity upgrades and associated costs otherwise incurred with traditional approaches
- MD/HD projects in this category ***may not*** incorporate DERs



Area of Focus 3: Demonstrate Advancements in Customer or Charging Interface

manual pg. 14

- This category addresses technological advances to facilitate the adoption of EVs by making the charging experience seamless for drivers and users through standardized interfaces and streamlined customer services
- The goal for these advanced interfaces is to simplify charging today, but also lay the foundation for emerging electric transportation applications including autonomous, shared and connected vehicles
- MD/HD projects in this category ***may not*** incorporate DERs



Additional Application Details

manual pg. 7

- Applicants must designate the Vehicle Sector and Area of Focus that their project will principally address
- However, if a project will additionally serve another Vehicle Sector or address another Area of Focus, the benefits of this additional scope will be factored in the Evaluation Criteria
- Applicants may submit multiple applications, but each proposed project must be separate and distinct



Eligible Applicants

manual pg. 12

- Open to all private entities with a business presence in California
- To be eligible, applicants must be involved in the EV or charging equipment business, such as the following:
 - **Automotive OEMs** – Entities that manufacture and produce vehicles
 - **EV Charging Product Manufacturers** – Entities that manufacture and develop charging equipment and products
 - **Electric Vehicle Service Providers** – Entities that manage connectivity across a network of chargers and/or offer software solutions using EV charging equipment
- Applicants must accept the Clean Transportation Program Terms and Conditions, without negotiation
- Applicants are required to register with the [California Secretary of State](http://www.sos.ca.gov) and be in good standing to enter into an agreement with the CEC:
<http://www.sos.ca.gov>



Project Requirements

manual pg. 13

- All projects must demonstrate novel technologies and/or business models that highlight innovative charging solutions and form factors that are the “best fit” for the local built environment, use case, and vehicle type
- All demonstrations must be installed for public or private use, real-world operating conditions at least at the bench scale, and demonstrate how the technology and/or business model could be deployed at scale in the future and become commercially viable



Eligible Stages of Development for Projects and Technologies *manual pg. 17*

- **Bench Testing and Validation:** Validation of concept in test setup under real operational conditions
- **Demonstration:** Demonstration and testing of a complete system prototype under real operating conditions
- **Prototype:** Proof of functionality and operation of a complete system prototype under real operating conditions
- **Complete Operational System:** Proof of functionality of complete system under real operating conditions
- **Commercial availability:** Qualification of system based on successful operation



Data Collection

manual pg. 17

- Each project must provide a minimum of 12 months of data collection on deployed infrastructure, submitted electronically in a monthly progress report
- Applicants shall describe in detail plans to ensure EVs will utilize their infrastructure and enable them to collect 12 months of data on charging events for deployed infrastructure, including but not limited to:
 - Charge and session duration
 - Energy delivered in kilowatt-hours (kWh)
 - Power delivered in kilowatts (kW)
 - Applicable price for charging, including but not limited to: electric utility tariff, EVSP service contract, or public charger price
 - Payment method
 - Types of vehicles using the charging equipment
 - Number of unique vehicles and frequency of “repeat vehicles”
 - Energy delivered back to grid or facility if a bidirectional charging use case (kWh)



Data Collection (cont.)

manual pg. 17

In addition, Applicants should identify and develop a plan for providing other relevant data and information to the CEC throughout the duration of the funding agreement, including but not limited to:

- Lessons learned
- Best practices (e.g. permitting and installation processes)
- Potential job creation
- Economic development
- Increased state revenue



Ineligible Projects

manual pg. 17

The following project types are not eligible:

- Market, literature, or technology surveys, or meta-analysis studies
- Basic research and development
- Projects which include DER for purposes other than supplying power to EV chargers for light-duty vehicle charging
- 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 EV-related and has no clear market connection
- Proof of functions



Eligible Project Costs

manual pg. 18

Examples of eligible reimbursable costs or match share include but are not limited to:

- Electric vehicle supply equipment
- Transformers
- Electric panels, conduit, wiring
- Meters
- Energy storage equipment
- Photovoltaic solar panels separately metered for electric charging
- Installation costs
- Planning and engineering design costs
- Stub-outs
- Demand management equipment
- Charging equipment and software for vehicle retrofits
- Replacement warranty coverage for retrofitted vehicles
- Vehicle powertrain and battery packs used for vehicle-to-vehicle charging



Match Funding

manual pg. 19

- Applications must include at least 25 percent of total project costs as match share
- Of this match share, at least 50 percent must be cash match

Example Calculation:

- An Applicant requests \$750,000 for a project in the LD Vehicle Sector
- They must contribute at least \$250,000 in match share, of which at least \$125,000 (50%) must be cash

Total project costs = \$750k + \$250k = \$1 million

Match share contribution = \$250k / \$1M = 25%



Two-Phase Evaluation Process

manual pg. 24

The evaluation process will consist of two stages:

- 1) Pre-Application Abstract Screening and Technical Scoring
- 2) Full Application Screening and Technical Scoring



Phase 1: Pre-Application Abstracts



Pre-Application Abstract Requirements

manual pg. 27

Each Applicant must complete and include the following:

Pre-Application Abstract Form (Attachment 1A)

Project Abstract

Past Performance Reference Form (Attachment 10)



Pre-Application Abstract Form (Attachment 1A)

manual pg. 27

- Applicants must include a completed Pre-Application Abstract Form which describes project eligibility and project proposal



Pre-Application Project Abstract

manual pg. 28

- The abstract (**limited to 5 pages**) must provide:
 - A summary of the proposed project,
 - Operational goals and objectives,
 - The project approach and how tasks will be implemented,
 - The cost effectiveness of the project
- Applicants must address the scoring criteria described in Section V.E



Past Performance Reference Form (Attachment 10)

manual pg. 28

- Provide references for grants received by the Applicant or team in the last 10 years, or for similar or related types of projects completed in the last 10 years
- References may be contacted by CEC staff
- Applicants should fill out a separate Past Performance Reference Form for each reference addressed in the pre-application abstract



How Will My Pre-Application Abstract Be Evaluated?

manual pg. 31

Administrative Screening Process

1. CEC staff screens pre-application abstracts per criteria in Section V.A.2.
2. Criteria are evaluated on a pass/fail basis.
3. Applicants must pass ALL administrative & technical screening criteria, or the application shall be disqualified and eliminated from further evaluation.



How Will My Pre-Application Abstract Be Evaluated?

manual pg. 32

Technical Screening Criteria

1. The Applicant is an eligible Applicant.
2. The project is an eligible project.
3. The Applicant passes the past performance screening criterion.



How Will My Pre-Application Abstract Be Evaluated?

manual pg. 32

Applicant Past Performance with the CEC (Pass/Fail)

1. CEC staff will screen pre-application abstracts per criteria in Section V.A.4.
2. Applicant—defined as at least one of the following: the business, principal investigator, or lead individual acting on behalf of themselves—must pass this screening criterion to be eligible to be scored under the evaluation criteria.
3. The Applicant may be disqualified due to **severe performance issues** characterized by significant negative outcomes under one or more prior or active CEC agreement(s) within the last 10 years.
4. It is **not** a requirement to have been awarded a prior CEC grant in order to apply.



How Will My Pre-Application Abstract Be Evaluated?

manual pg. 35

- Evaluation Committee applies the scoring scale to the evaluation criteria.
- Pre-Application Abstracts must obtain a minimum passing score of 35 points in order to submit a Full Application.
- Review Section IV of the manual and ensure the Pre-Application Abstract provides a clear and complete response to each evaluation criterion.

| Scoring Criteria | Maximum Points |
|---|----------------|
| 1. Project Summary | 25 |
| Minimum Passing Score for Criterion 1. | 17.5/25 |
| 2. Project Readiness and Implementation | 15 |
| Minimum Passing Score for Criterion 2. | 10.5/15 |
| 3. Funding Request and Cost Effectiveness | 10 |
| Minimum Passing Score for Criterion 3. | 7/10 |
| Total Points Possible | 50 |
| Minimum Points to Pass | 35 |



Pre-App Abstract Submission Requirements (Electronic)

manual pg. 25

- Preferred method of delivery is [the CEC's Grant Solicitation System](#), available at: <https://gss.energy.ca.gov/>
- Electronic files must be in Microsoft Office Word (.doc, .docx) and Excel (.xls, .xlsx) formats, unless originally provided in the solicitation in another format
- Until further notice, any requirement in CEC contract, grant, and loan solicitations to provide a signature is waived (even if it is in the screening criteria). No signature, even electronic, is necessary
 - <https://www.energy.ca.gov/funding-opportunities/solicitations>
- First-time users must register as a new user to access system



Pre-App Abstract Submission Requirements (Hard Copy)

manual pg. 26

- Due to COVID-19, hard copy submissions will only be accepted via U.S. Mail, FedEx, or UPS
- By the due date and time listed, submit applications with all attachments in the order specified in Section IV of the manual
- Application documents should meet formatting requirements, page limits, and number of copies specified
- Provide one hard copy and one electronic copy (USB stick) containing electronic files of the application
- Electronic files submitted via e-mail and FAX transmissions will not be accepted
- In order to be consistent with orders and recommendations from state and local officials to encourage physical distancing to slow the spread of COVID-19, in-person delivery of applications will NOT be allowed



Phase 2: Full Applications





Full Application Requirements

manual pg. 39

Each Applicant must complete and include the following:

Full Application Form (Attachment 1B)

Contact List (Attachment 6)

Project Narrative

Letters of Support/Commitment

Scope of Work (Attachment 2)

CEQA Worksheet (Attachment 7)

**Schedule of Products and Due Dates
(Attachment 4)**

Local Health Impacts Form (Attachment 8)

Budget Forms (Attachment 5)

**Past Performance Reference Form
(Attachment 10)**

Resumes



Full Application Form (Attachment 1B)

manual pg. 39

- Applicants must include a completed Full Application Form which describes project eligibility and project proposal



Project Narrative

manual pg. 40

- The narrative (**limited to 20 pages**) must include a table of contents and provide:
 - A detailed description of the proposed project and its innovation
 - Operational goals and objectives
 - The project approach and how tasks will be implemented through the proposed Scope of Work (Attachment 2)
 - The economic, social, and environmental benefits of the project
- Applicants must address the scoring criteria described in Section VII.E



Scope of Work & Schedule of Products and Due Dates

manual pg. 45

Scope of Work (Attachment 2):

- Tell us exactly what you are proposing to do in your project
- Identify what will be delivered to the CEC
- Be sure to include in the technical tasks:
 - At least one product deliverable per task
 - Address requirements in Section II.B. under Project Requirements

Schedule of Products and Due Dates (Attachment 4):

- Product deliverables that correspond with the Scope of Work
- Realistic dates on when product deliverables can be completed



Budget (Attachment 5)

manual pg. 45

- Identify how CEC funds will be spent to complete the project
- All reimbursable costs must be incurred within the approved term of the funding agreement



Resumes

manual pg. 47

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



Contact List (Attachment 6)

manual pg. 47

- Applicants must include a completed Contact List (Attachment 6) by including the appropriate points of contact for the Applicant
- The CEC will complete the CEC points of contact during agreement development



Letters of Support/Commitment

manual pg. 47

- Follow guidelines provided for commitment and support letters
 - Commitment letters are required for entities or individuals that are committing match funding or testing/demonstration sites, including the **Prime** applicant
 - Support letters describe a project stakeholder's interest or involvement in the project
- Any project partners that will make contributions to the project must submit a commitment letter
- Limit of two pages per letter



CEQA Worksheet (Attachment 7)

manual pg. 48

- Applicants must include a completed CEQA worksheet to determine CEQA compliance obligations



Local Health Impacts Information Form (Attachment 8)

manual pg. 49

- Applicants must complete and submit a Local Health Impacts Information Form (Attachment 8)
- The CEC requires this information to assist in developing and publishing a localized health impacts report



Past Performance Reference Form (Attachment 10)

manual pg. 40

- Provide references for grants received by the Applicant or team in the last 10 years, or for similar or related types of projects completed in the last 10 years
- References may be contacted by CEC staff
- Applicants should fill out a separate Past Performance Reference Form for each reference addressed in the Project Narrative



How Will My Application Be Evaluated?

manual pg. 50

Administrative Screening Process

1. CEC staff screens applications per criteria in Section VII.A.2.
2. Criteria are evaluated on a pass/fail basis.
3. Applicants must pass ALL administrative & technical screening criteria, or the application shall be disqualified and eliminated from further evaluation.



How Will My Application Be Evaluated?

manual pg. 50

Technical Screening Criteria

1. The Applicant is an eligible Applicant.
2. The project is an eligible project.
3. The project meets the minimum match share requirements.
4. The Applicant passes the past performance screening criterion.
5. The full application is based on and consistent with a pre-application abstract receiving a passing score under this solicitation.



How Will My Application Be Evaluated?

manual pg. 32

Applicant Past Performance with the CEC (Pass/Fail)

1. CEC staff will screen full applications per criteria in Section VII.A.4.
2. Applicant—defined as at least one of the following: the business, principal investigator, or lead individual acting on behalf of themselves—must pass this screening criterion to be eligible to be scored under the evaluation criteria.
3. The Applicant may be disqualified due to **severe performance issues** characterized by significant negative outcomes under one or more prior or active CEC agreement(s) within the last 10 years.
4. It is **not** a requirement to have been awarded a prior CEC grant in order to apply.



How Will My Application Be Evaluated?

manual pg. 55

- Evaluation Committee applies the scoring scale to the evaluation criteria.
- Full applications must obtain a minimum passing score of 70 points in order to be considered for funding.
- Review Section VII of the manual and ensure the full application provides a clear and complete response to each evaluation criterion.

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



GFO Submission Requirements (Electronic)

manual pg. 37

- Preferred method of delivery is [the CEC's Grant Solicitation System](#), available at: <https://gss.energy.ca.gov/>
- Electronic files must be in Microsoft Office Word (.doc, .docx) and Excel (.xls, .xlsx) formats, unless originally provided in the solicitation in another format.
- Until further notice, any requirement in CEC contract, grant, and loan solicitations to provide a signature is waived (even if it is in the screening criteria). No signature, even electronic, is necessary.
 - <https://www.energy.ca.gov/funding-opportunities/solicitations>
- First-time users must register as a new user to access system.



GFO Submission Requirements (Hard Copy)

manual pg. 37

- Due to COVID-19, hard copy submissions will only be accepted via U.S. Mail, FedEx, or UPS.
- By the due date and time listed, submit applications with all attachments in the order specified in Section VI of the manual.
- Application documents should meet formatting requirements, page limits, and number of copies specified.
- Provide one hard copy and one electronic copy (USB stick) containing electronic files of the application.
- Electronic files submitted via e-mail and FAX transmissions will not be accepted.
- In order to be consistent with orders and recommendations from state and local officials to encourage physical distancing to slow the spread of COVID-19, in-person delivery of applications will NOT be allowed.



Key Activities and Dates

manual pg. 6

| Activity | Action Date |
|---|---------------------------|
| Solicitation Release | August 7, 2020 |
| Pre-Application Workshop | August 18, 2020 |
| Deadline for Written Questions by 5:00 PM | August 21, 2020 |
| Anticipated Distribution of Questions/Answers | September 4, 2020 |
| Deadline to Submit Pre-Application Abstracts by 5:00 PM | September 18, 2020 |
| Anticipated Notice of Pre-Application Abstracts Results Posting | October 9, 2020 |
| Deadline to Submit Full Applications by 5:00 PM | November 20, 2020 |
| Anticipated Notice of Proposed Awards Posting | December 2020 |
| Anticipated CEC Business Meeting | February 2021 |



Questions and Answers

manual pg. 9

Three ways to ask questions:

1. Use the raise hand function in Zoom:

- Zoom Phone Controls:
 - *6 - Toggle mute/unmute.
 - *9 - Raise hand.
- Please introduce yourself by stating your name and affiliation.
- Keep questions under 3 minutes to allow time for others.

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

- Please provide name and affiliation.

3. Submit written questions:

- Send written questions to Marissa.Sutton@energy.ca.gov no later than **August 21, 2020 5:00 PM PST.**

Note that an official CEC response will be provided in writing and posted on the GFO webpage in approximately two weeks.



Additional Questions

manual pg. 10

Please send all questions related to GFO-20-605 to:

Marissa Sutton

Commission Agreement Officer

1516 Ninth Street, MS-18

Sacramento, California 95814

(916) 654-4484

Marissa.Sutton@energy.ca.gov

Deadline to submit questions: Friday, August 21, 2020 5:00 PM

Deadline to submit Pre-App Abstracts: Friday, September 18, 2020 5:00 PM

Deadline to submit Full Applications: Friday, November 20, 2020 5:00 PM