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<td><strong>Docket Number:</strong></td>
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Workshop Agenda

10:05 a.m. Welcome and Introductions
10:15 a.m. Background and Overview of Available Funding
10:20 a.m. Funding Concept
10:40 a.m. Public Comments
11:30 a.m. Next Steps
11:55 a.m. Adjourn

*The workshop end time is an estimate and may end earlier.
Housekeeping

• Workshop is being recorded
• Workshop Event Webpage:
  https://www.energy.ca.gov/event/workshop/2022-09/workshop-electric-school-bus-bi-directional-infrastructure-funding-concept
• Virtual Participation Through ZOOM
  • Raise Hand or use Q&A feature
  • Phone-in participants dial *9 to raise your hand
• Submit written comments to Docket # 19-TRAN-02 Comment Page:

Comment Deadline: Friday, September 30, 2022 by 5:00 pm
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 commitment, CEC staff conducts outreach efforts and activities to:

• Engage with disadvantaged and underrepresented groups through 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
Background and Available Funding
Background

California power grid threatened by record heat wave as wildfire risk rises
Electric School Bus Past, Current and Future Funding

CEC School Bus Replacement Program
- $75 million, funding 228 bi-directional capable electric school buses

(Notice of Proposed Awards can be found at: https://www.energy.ca.gov/solicitations/2018-05/gfo-17-607-school-bus-replacement-california-public-school-districts-county.)

Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP)
- $400 million for School Bus Set-Aside for small and medium air districts

Proposition 98 General Fund
- $1.125 billion for electric school buses
Clean Transportation Program Background

- Established in 2007 by Assembly Bill 118 (2007)
- Extended to January 1, 2024, by Assembly Bill 8 (2013)
- Provides approximately $95 million in base program funding per year through 2023
- Investment Plan to determine funding allocations across various programs
Overview of Available Funding

• The fiscal years (FY) 2021 – 2023 Clean Transportation Program Investment Plan allocates approximately $391 million for MD/HD infrastructure from the Clean Transportation Program and a one-time investment from the California State General Fund.

• This workshop will discuss and receive stakeholder feedback on a solicitation concept that proposes to use $10 million of these funds.
Funding Concept
$10 million for bi-directional infrastructure for electric school buses

$2-$3 million per project

Anticipating three to five projects funded

Eligible reimbursable costs include solar generation, stationary battery storage, bi-directional electric school bus charging infrastructure

Procurement of battery electric school bus is not eligible
Eligibility Criteria

**Project Eligibility**

- Project site(s) must be located within a Tier 2 or Tier 3 High Fire Threat District
- Infrastructure must be utilized by electric school buses with bi-directional capabilities for either vehicle-to-building or vehicle-to-grid utilization
Project Eligibility

• Local Education Agencies (LEA) own and operate a minimum of 10 bi-directional-capable electric school buses.

• If less than 10 buses, CEC staff is considering setting a minimum amount of kWh storage capacity.

• Demonstrate the capability for participation in grid services in exchange for payment.
Charging Equipment Eligibility

• Bi-directional DCFC using CCS-1 connector
• Internally networked (5-year networking agreement)
• Capable of bi-directional charging at a minimum of 60 kW
• Hardware ready for digital communication using ISO 15118-20
• Compliant with Open Charge Point Protocol 1.6 or later
• Certified to UL 1741 Supplement B and any additional interconnection requirements
• Capable of responding to Emergency Load Reduction Program events*
• May include procurement and installation of renewable generation and other distributed energy resources.

*Does not apply to installations outside of IOU territory.
Eligibility Criteria (Cont.)

Applicant Eligibility

• Project implementers that can install and oversee V2X capable DCFC; incorporating multiple sites within an LEA is encouraged

• Applicants demonstrate an existing relationship with LEA's, electric school bus manufacturers, electric utilities, and experienced EVSE project partners

• Applicant must commit to maintaining and operating equipment for a minimum of five years after project completion

• Minimum match share of 25 percent

• Applicant requirement to produce a case study at the end of project activities
Example Projects

- Infrastructure installed across multiple LEA sites
- Multiple bi-directional chargers installed at a primary location (e.g., the main bus parking site at a single LEA), in addition to bi-directional chargers installed at additional facilities
- Multiple LEA's in different geographic locations throughout the state taking part in the project, to allow for a variety of scenarios and data to be tested and collected
- Multiple LEA's with varying fleet sizes, demonstrating whether larger fleets are ideal for bi-directional use cases or if the benefits exist, and to what extent, regardless of fleet size

Example Project Budget

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<tr>
<th>Item</th>
<th>Budget</th>
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<tr>
<td>Bi-directional DCFC</td>
<td>$1,300,000</td>
</tr>
<tr>
<td>Solar and Storage</td>
<td>$500,000</td>
</tr>
<tr>
<td>Electrical Upgrades, Software, Installation, Administration, and Project Management</td>
<td>$700,000</td>
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<tr>
<td>Match Share (25 percent minimum)</td>
<td>$625,000</td>
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<tr>
<td><strong>TOTAL PROJECT BUDGET</strong></td>
<td><strong>$3,125,000</strong></td>
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Questions and Discussion

• Items for CEC to consider
• Questions for Stakeholders:
  • How do stakeholders suggest equipment ownership be handled and why?
  • Are there any technology requirements stakeholders feel must be accounted for regarding the electric bus or EVSE?
  • What are stakeholders’ thoughts on upgrading battery electric school buses to be bi-directional, including hardware and software?
  • Thoughts on 10 bus or battery capacity minimum requirement?
  • General thoughts on the funding concept?
  • If installing infrastructure at multiple sites, is there a feeling of how many should be in a Tier 2/3 Fire Threat District?
  • General thoughts on match share?
Public Comment and Discussion

Zoom Participants
• Use the "hand raise" feature to make comments
• Use the Q&A feature to type questions or comments into ZOOM

Telephone Participants
• Dial *9 to raise your hand
• Dial *6 to mute/unmute your phone line

Submit Written Comments

Deadline for comments: Friday, September 30, 2022, by 5:00 p.m.
Submit Comments to Docket # 19-TRAN-02

Electronic Commenting System
Visit the comment page for Docket # 19-TRAN-02 at:

Comment by E-Mail
E-mail: docket@energy.ca.gov
Subject Line: "19-TRAN-02 Electric School Bus Infrastructure Workshop"

Deadline for comments: Friday, September 30, 2022, by 5:00 p.m.
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.

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<tr>
<th>FIND A PARTNER</th>
<th>RESOURCES &amp; TOOLS</th>
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<td>Announce your interest in this funding opportunity and message other interested parties to find potential partners.</td>
<td>Browse the collection of resources for clean tech innovators including Resource Libraries, Funding Sources, Tools, and Databases.</td>
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To search for funding opportunities, please go to this link: https://www.empowerinnovation.net/en/custom/funding/directory

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

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<tr>
<td>Workshop Comment Period Ends</td>
<td>September 30, 2022, 5:00 p.m.</td>
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<tr>
<td>Solicitation Release</td>
<td>January 2023*</td>
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<td>Deadline to Submit Applications</td>
<td>March 2023*</td>
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*Projected date. Is subject to change.

To sign up for CEC subscriptions, visit: https://www.energy.ca.gov/subscriptions

- Solicitation Relevant Topics Include:
  - Commission General Topics: "RFP's, Solicitations"
  - Transportation topics: "School Bus Replacement Program, Clean Transportation Program, Distributed Generation, California Vehicle-Grid Integration Roadmap Update"
Thank You!