

Concepts Workshop

Solicitation to Establish Bulk Purchase Pricing for Electric School Buses



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July 24, 2018

Fuels and Transportation Division – The School Bus Replacement Program
California Energy Commission

Questions/Comments

- Electronic Commenting System:

<https://efiling.energy.ca.gov/EComment/EComment.aspx?docketnumber=18-TRAN-01>

- Mail comments to:

California Energy Commission
Docket Unit, MS-4
RE: Docket No. 18-TRANS-01
1516 9th Street
Sacramento, California 95814-5512

- Email: schoolbusprogram@energy.ca.gov



Comment period ends 5 p.m. August 3, 2018.

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The School Bus Replacement Program

Senate Bill 110 (Chapter 55, Statutes of 2017) charged the California Energy Commission with retrofitting or replacing old diesel school buses in disadvantaged and low-income communities throughout the Golden State.

The Energy Commission is in the process of establishing its School Bus Replacement Program to provide schools with options to embrace next generation zero-emission vehicles and improve children's health by limiting their exposure to transportation-related air pollution.

SB 110 appropriates up to \$75 million to the program from The California Clean Energy Jobs Act, an initiative approved by the voters in (Proposition 39, 2012). The Energy Commission is holding public workshops to request input on the program's funding, eligibility requirements, proposed solicitations, evaluation criteria and information for submitting public comments and questions.

The Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP) will fund complementary agreements to provide charging infrastructure and workforce training and development opportunities to drivers and maintenance technicians.

Please check this and related pages regularly for updates, upcoming workshops, and other opportunities for public input.

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Jennifer Masterson
Email: Schoolbusprogram@energy.ca.gov
Toll Free Contact Number: 855-279-8381

Proceeding Information

[Workshops, Notices, and Documents](#)

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Comment period has been extended.
Please submit comments by 5:00 p.m. March 7, 2018.
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Agenda

- Introduction
- Background/SB 110
- Phase 1 – GFO-17-607
- Phase 2 – Draft Solicitation Concepts
- Round Table Discussion of Concepts
- Questions and Comments



Commitment to Diversity

The Energy Commission adopted a resolution on April 8, 2015, to firmly commit to:

- Increase participation of women, minority, disabled veteran and LGBT business enterprises in program funding opportunities.
- Increase outreach and participation by disadvantaged communities.
- Increase diversity in participation at Energy Commission proceedings.
- Increase diversity in employment and promotional opportunities.



Commitment to Diversity

Fairness – Increase funding accessibility to all Californians.

Inclusion – Small businesses make up a significant portion of the U.S. economy.

Job Creation – Projects can create jobs for residents of the under-served communities.

Diversity of Ideas – Great ideas occur in a variety of areas.

Diversity in Communities' Needs – Needs vary widely from one area to the next (air quality, socioeconomic, etc.).



Program Goals and Objectives

- SB 110 and Governor's Executive Order
- Children's health and safety
- A simple application process
- Build the future supporting network of advanced next generation infrastructure
- Position as many schools with the option to embrace next generation zero emission vehicles
- GHG reductions



Workshop Goals

- Provide an overview of draft concepts for the Solicitation to Establish Bulk Purchase Pricing for Electric School Buses.
- Provide an open forum for questions and comments to clarify and improve these concepts.
- Receive guidance that will enable the Energy Commission to prepare a successful solicitation for the bulk purchase of electric school buses.



Reminder

- This workshop is discussing draft solicitation concepts.
- No applications are being accepted at this time for bulk purchase pricing for electric school buses.
- The final solicitation could be substantially different from these draft solicitation concepts.



Senate Bill 110

- Funding: \$75 million
- Eligible applicants:
 - Public school districts;
 - County offices of education (COE); and
 - Joint power authorities (JPA).
- Priority given to the oldest school buses, or school buses operating in disadvantaged communities and to schools that have a majority of students eligible for free or reduced-priced meals in a prior year.
- Any school bus replaced shall be scrapped.



Program Design

1. School bus replacement (2 phases)

Phase 1: Solicit public school districts, COEs, and JPAs to establish a list of buses eligible for replacement based on applications received.

Phase 2: Solicit manufacturers to design, construct, and deliver the replacement electric buses to school districts, COEs, and JPAs awarded in Phase 1. This phase is a separate solicitation which is planned for release in late 2018.



Program Design (*cont.*)

2. Provide fueling infrastructure to support awarded school buses.
3. Provide workforce training, development opportunities, and resources to support electric school bus maintenance, charging, and operations.



Phase 1 – GFO-17-607

- **Purpose:** To identify list of buses eligible for replacement.
- Solicitation was released May 30, 2018.
- Applications will be accepted until 5 p.m. on September 20, 2018.
- Bus list/initial NOPA expected to be released in October 2018.



Phase 1

Awards and Funding

- Electric school buses will be recommended for replacement in ranked order until all available electric school bus funds are exhausted (\$75M).
- CNG school buses will be recommended for replacement in ranked order until all available CNG school bus funds are exhausted (\$3.7M).
- Funds will be provided to school districts/COEs/JPAs to purchase the buses selected under Phase 1.



Phase 1

Awards and Funding (*cont.*)

- School districts ***must*** purchase their electric school buses from the manufacturer(s) selected by the Energy Commission under Phase 2.
- Funds pay for 100% of the standard electric bus and up to \$165,000 for CNG buses.
- Buses selected for replacement with an electric school bus will receive up to \$60,000 for infrastructure.
- Buses selected for replacement with a CNG school bus may receive up to \$500,000 for infrastructure until CNG infrastructure funding is exhausted (\$2.4M).



Phase 1

Questions?



Phase 2

Establish Bulk Purchase Prices

- **Purpose:** To conduct a competitive solicitation for eligible applicants to establish bulk purchase pricing for the design, construction, and delivery of the replacement electric buses to school districts, COEs and JPAs selected in Phase 1.
- Bulk Purchase Pricing Solicitation expected to be released October 2018.



Phase 2

Establish Bulk Purchase Prices

Eligible applicants will submit proposals demonstrating the degree to which they can fulfill the bus list needs determined in Phase 1, including:

- The type(s) of bus(es) that can be provided
- Number of buses that can be produced within established timeframe
- Cost of buses
- Timing for delivery of buses



Phase 2

Proposed Design Concept (*cont.*)

Additional criteria - Ability of applicant to meet:

- Deadlines/milestones
- Performance of vehicles in comparable drive and duty cycles
- Location of manufacturing facility
- Ability to leverage other funding opportunities
- Ability to provide standard features available for buses
- Warranty options



Phase 2

Eligible Applicants

- Must have a business presence in California.
- Registered and in good standing with the California Secretary of State.
- Eligible applicants may include:
 - Electric school bus dealers.
 - Electric school bus manufacturers.



Phase 2

Eligible Projects

- Projects designing, constructing, and delivering new electric buses to school districts, COEs and JPAs.
- Project technologies must have prior successful continuous operation.
 - Demonstration projects are not eligible.
 - Retrofitted buses are also not eligible.



Phase 2

Eligible Bus Types

- The results of Phase 1, GFO-17-607, will be posted in an initial Notice of Proposed Awards (Oct. 2018) and will include the rank order of replacement bus types needed.
- Eligible electric bus types are:
 - Type A
 - Type B
 - Type C
 - Type D



Phase 2

Available Funding

- A total of \$75 million is available for the purchase of electric school buses awarded under GFO-17-607.
- Selected applicant(s) will enter into an agreement with the Energy Commission for the construction of a specified number and type of buses at a fixed, agreed-upon price.
- Selected applicant(s) will be paid by school districts, JPAs, and COEs who are awarded buses.



Possible Evaluation Criteria

- Price/Cost
- Manufacturing Capacity/Lead Time
- Equipment and Features Included
- Battery & Fuel Range
- Warranty and Service
- Parts and Supply Line
- Training and Support
- Infrastructure
- California Content
- References
- Company Experience
- Innovation



Tentative Key Dates

Activity	Date
Deadline to submit GFO-17-607 applications by 5 p.m.	September 20, 2018
Post bus list (Initial NOPA)	October 2018
Bulk Pricing for Electric Buses Solicitation release	October 2018
Manufacturer/Dealer applications due	December 2018
Award Manufacturer(s)/Dealer(s)	February 2019
Award buses (Final NOPA)	February 2019
Install Infrastructure	April - December 2019
Begin Delivering Buses	Estimated to be October 2019



Round Table Discussion

Panel Introduction



Discussion Questions

Phase 2 Proposed Design Concept

- What is missing from the proposed approach?
- Are there additional evaluation criteria that should be requested that would be beneficial?
- Is there any reason a district, COE or JPA would or could not accept a bus based on these proposed approaches?
- How many buses need to be purchased to lower the bus price?
- What are the standard features of a bus? Will adding features increase the amount of time for delivery?



Discussion Questions (*cont.*)

Phase 2 Proposed Design Concept (*cont.*)

- Is bulk pricing available for add-on features?
- Is there anything infeasible to provide, in terms of the proposed evaluation criteria? Is there anything that is missing?
- For bidding purposes, what key elements are necessary in the Commission's agreement with bus manufacturers/dealers to be able to order buses to satisfy a school's procurement processes?
- Can the proposed solicitation act as the school's competitive bid process?



Discussion Questions (*cont.*)

Warranty/Repair

- What are the warranty lengths, including battery, and what is covered?
- How do you manage your supply chain to ensure that parts are available when required for maintenance?
- Will technicians come out to fix issues under warranty or will the bus need to be taken in to a service center?
- Will repair/maintenance manuals and wiring diagrams be provided to the school district/COE/JPA upon delivery of the bus?
- What kind of training is available for fleet staff to be able to perform basic repairs and maintenance, especially towards the end of the warranty?



Discussion Questions (*cont.*)

Standard Features

- What are considered standard or customary features of an electric school bus?
- What standard features would fleets like to see included in the purchase of an electric bus?

Battery/Range

- What is the expected range for each type of bus?
- What type of battery management system is included with the bus and how often does it record data? (Remaining battery range, battery pack health, etc.)

Delivery Timeframe

- What is a reasonable time period for bus delivery? Is 6 months reasonable?
- Will any additional features/accessories prolong the delivery time?



Discussion Questions (*cont.*)

Infrastructure

- Is any charging infrastructure provided by the manufacturer with the purchase of a bus?
- What type of infrastructure support is provided to customers?
- Will these buses be equipped with a universal charging system?
- Is there any infrastructure, outside of charging equipment, that schools or dealers would like the Commission to consider?
- How long would it take to get the charging site ready for bus delivery?



Discussion Questions (*cont.*)

Workforce Training

- In addition to buses, what additional options, such as technical assistance, may be included in the manufacturing package?
- What are schools asking for in terms of training opportunities? Driver training?
- What type of workforce training would be beneficial for fleet staff? What type of training is being requested by staff?



Discussion Questions (*cont.*)

Additional Funding Opportunities

- What other incentive opportunities are available to dealers to leverage funds to maximize the number of old school buses to be replaced?
-
- Other questions for discussion?
 - Public comment?

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