

**2007 GRANT PROPOSAL SOLICITATION  
Alternative Fuel Incentive Program (AFIP)**

# **ATTACHMENT D**

## **Transit Bus Projects**

Mobile Source Control Division  
California Air Resources Board  
02/09/07

California Air Resources Board  
**Alternative Fuel Incentive Program (AFIP)**  
**Transit Bus Projects**

February 9, 2007

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## **INTRODUCTION**

The mission of the California Air Resources Board (ARB or Board) is to promote and protect public health, welfare and ecological resources through the effective and efficient reduction of air pollutants while recognizing and considering the effects on the economy of the State. Chapter 48, Statutes of 2006 (Assembly Bill 1811) authorized the California Air Resources Board (ARB) to expend \$25 million (twenty-five million dollars) in the 2006/2007 budget year to incentivize the use and production of alternative fuels. The Board is requesting Alternative Fuel Incentive Program (AFIP) grant proposals from applicants for the fiscal year 2006/2007. All funds must be encumbered by June 30, 2007.

The focus of this grant application packet is to solicit proposals for development and optimization of zero emission and zero emission enabling bus technology in transit fleets throughout California.

This request for grant proposals is to solicit proposals from transit agencies, nonprofit organizations, air districts, and collective non-governmental organizations (such as the Bay Area Metropolitan Transportation Commission) for demonstration and development of zero emission and zero emission enabling technologies for buses operating in California. Zero emission and zero-emission-enabling-bus technologies offer a promising way to help reduce total emission levels in transit fleets as well as draw dependence away from petroleum as a transportation fuel.

## **BACKGROUND**

Air quality in California has improved dramatically over the past 30 years, due in large part to the continued progress in controlling pollution from mobile sources. Despite the achievements to date, the vast majority of Californians live in areas of the state that still do not meet State or Federal health-based ambient air quality standards.

In February 2000, the Board confirmed its continued commitment toward improving emissions from public transportation by establishing a new fleet rule for transit agencies and more stringent emission standards for new urban bus engines and vehicles. The rule also promoted advanced technologies by adopting Zero Emission Bus (ZBus) demonstration and ZBus acquisition requirements for larger transit agencies<sup>1</sup>. The focus areas of this proposal are ZBuses and ZBus Enabling Technologies.

Based on demonstrated performance, expected cost and availability, transit agencies viewed the fuel cell engine as the transportation industry's environmental solution and eagerly initiated efforts to further test and evaluate fuel cell buses. Despite the efforts of the technology providers and transit agencies, ZBus technology has not developed as rapidly as initially projected. ZBus costs are still greater than current standard

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<sup>1</sup> ARB. February 24, 2000. Resolution 00-2.

technology buses and durability, reliability, and ability of manufacturers to produce a fleet of ZBuses needs to be demonstrated. ZBus and Zero Emission Enabling Bus Technology help develop deployment of alternative fuels by promoting battery, electric motor, hydrogen fuel storage and infrastructure development.

## **ELIGIBILITY**

Listed below are the minimum qualifications for applicants submitting proposals in response to this section of the Request for Grant Proposals (RFGP). The intent of the minimum qualifications is to ensure that the State receives vehicles able to meet demonstrations requirements. This RFGP is not intended to fund basic research. The qualifications in the RFGP are designed to ensure the State contracts with a viable business having a proven track record and a demonstrated ability to provide proven vehicles. The intent is not to exclude or eliminate applicants of a specific size or affiliation but to ensure that the funds are only to be used in a manner that meet the State's interest.

### **Minimum Applicant Qualifications**

The following applicants are eligible grant recipient leads:

- Transit agencies,
- Nonprofit organizations,
- Air districts, or
- Collective non-governmental organizations for demonstration and development of zero emission and zero emission enabling technologies for buses operating in California.

Applicants must be able to provide proof that the company, if a corporation, is in good standing with the Secretary of State, and is qualified to do business in the State of California. For applicants that are non-profit organizations, provide proof of non-profit status. Also, attach copies of current business licenses, professional certifications, resumes, proof of financial solvency or stability (e.i., balance sheets and income statements for three years, and other credentials).

Project Manager proposed must have at least five years experience in purchasing and placing buses in revenue service and have experience managing successful alternative fueling projects. Applicants must possess significant active experience in transit operations such as developing and implementing an operating and maintenance program for buses, a plan to provide information to educate, inform and promote the bus and its benefit to the public, and oversight of the timeline for bus placement and operation.

Applicants are invited to apply for augmented funding for existing programs or for funding that will support a new bus development. Applicants shall provide information to demonstrate how they have met the qualifications as detailed in the proposal.

## Minimum Qualifications for Projects

There are two types of Bus Projects that are eligible for incentive funding under this subsection: 1) projects that are zero emission buses (Zero Emission Bus Projects), and 2) projects that advance the zero emission enabling bus technology (Zero Emission Enabling Technology Projects).

## Eligible Projects—General

This incentive program provides grants for applicants interested in developing and deploying zero emission and zero emission enabling technologies in buses. General criteria are as follows:

- The technology is for application in buses in transit agencies throughout California,
- Other state funding cannot be used for matching funds,
- The source(s) of other funding must be identified,
- The operating agency must be a partner in the proposal,
- The technology must be in use no later than June 30, 2008, and
- All monies must be disbursed by June 30, 2009.
- Each vehicle must be a new bus or an upgraded bus and must be able to be utilized by a transit agency for public use in California. The vehicle must have been approved by the ARB as a zero emission bus or a zero emission enabling bus.
- The bus must be certified in compliance with Federal and State safety standards or have an appropriate experimental vehicle waiver.
- Any modification of an original gasoline or diesel fueled bus to allow the use of liquefied and gaseous hydrogen as a fuel shall not in its operation, function, or malfunction, result in any unsafe condition endangering the motor vehicle, its occupants, other persons, or property in close proximity to the vehicle in accordance with the safety requirements specified for the original vehicle.

## Eligible Zero Emission Bus Projects

To be eligible for funding as a Zero Emission Bus Project, the Bus must meet the zero emission bus definition as described below.

**“Zero-emission bus”** (for the purpose of this solicitation only) means a bus that produces zero exhaust emissions of any criteria pollutant (or precursor pollutant) under any and all possible operational modes and conditions. A hydrogen-fuel cell bus shall qualify as a zero-emission bus. An electric trolley bus with overhead twin-wire power supply shall qualify as a zero-emission bus. A battery electric bus shall qualify as a zero-emission bus. Incorporation of a fuel-fired heater shall not preclude an urban bus from being certified as a zero-emission bus, provided the fuel-fired heater cannot be operated at ambient temperatures above 40°F and the heater is demonstrated to have

zero evaporative emissions under any and all possible operational modes and conditions.

### **Eligible Zero Emission Enabling Bus Technology Projects**

The purpose of the zero emission enabling bus technology is to demonstrate low emission technologies and zero emission enabling technology simultaneously. To be eligible for funding as a Zero Emission Enabling Bus Technology Project, the proposal must meet the following criteria:

- The engine has been certified as an urban bus engine or is in the process of being certified as an urban bus engine by the ARB to meet the applicable 2010 standard as described in Title 13, California Code of Regulations (CCR), section 1956.8(a)(2)(A)<sup>2</sup>;
- The manufacturer must present data that demonstrates that the engine emissions are at or below 50 percent of the applicable 2010 standard as described in Title 13, CCR, section 1956.8(a)(2)(A)<sup>2</sup>;
- The bus must operate on a fuel or a blend containing a fuel that is used in a zero emission bus; and
- The zero emission enabling technology cannot utilize petroleum based fuels.

### **AVAILABLE FUNDING**

The total available funding for zero emission buses and zero emission enabling bus technology is \$2 million. It is anticipated that this allocated amount will be distributed as grants within this category. However, should an insufficient number of quality proposals be received, monies may be shifted to other grant categories. Not all monies may be awarded. In no event will the total grant amount exceed \$25 million.

In addition, it is anticipated that several projects will be awarded helping to implement projects in transit agencies throughout California. There is not a minimum match share requirement for State monies, but the share of match funding will be considered in scoring the proposal.

### **DEFINITIONS**

**“Alternative Fuel”** (used for the purpose of diesel particulate matter control devices such as the Zero Emission Buses) means natural gas, propane, ethanol, methanol,

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<sup>2</sup> This is identified in the regulation table under the Model Year heading as “2007 and subsequent.” For the purposes of this solicitation averaging cannot be used to meet the current standards. The engine must be certified as an urban bus and must meet the values in the table. This is commonly referred to as the 2010 standard since it does not incorporate the averaging allowances provided by U.S. Environmental Protection Agency(EPA) in model years 2007 through 2009. All values are given in grams per brake horsepower hour (g/bhp-hr) Oxides of Nitrogen 0.2; Non-methane Hydrocarbons 0.14; Carbon Monoxide 15.5; Particulates 0.1. Please see the CCR for appropriate footnotes and information.

gasoline (when used in hybrid electric buses only), hydrogen, electricity, fuel cells, or advanced technologies that do not rely on diesel fuel. "Alternative fuel" also means any of these fuels used in combination with each other or in combination with other non-diesel fuels. This definition is used to determine the fueling path of the transit agencies.

**"Commuter Service Bus"** means a passenger-carrying vehicle powered by a heavy heavy-duty diesel engine or of a type normally powered by a heavy heavy-duty diesel engine that is not otherwise an urban bus and which operates on a fixed route primarily during peak commute hours and that has no more than ten scheduled stops per day, excluding park-and-ride lots. A commuter service bus is a transit fleet vehicle.

**"Hybrid-Electric Bus"** (HEB) means an urban bus equipped with at least two sources of energy on board; this energy is converted to motive power using electric drive motors and an auxiliary power unit, which converts consumable fuel energy into mechanical or electrical energy. The electric drive motors must be used partially or fully to drive the vehicle's wheels.

**"Revenue Service"** for the purpose of this solicitation means that the bus is carrying passengers for fares.

**"Terminal"** means any place or places where a vehicle is regularly garaged or maintained, or from which it is operated or dispatched, which may include a private business or residence.

**"Transit agency"** means a public entity responsible for administering and managing transit services. Public transit agencies can directly operate transit service or contract out for all or part of the total transit service provided.

**"Transit Fleet Vehicle"** means an on-road vehicle greater than 8.5 thousand pounds Gross Vehicle Weight Rating (GVWR) normally powered by a heavy-duty engine fueled by diesel or alternative fuel, owned or operated by a transit agency, and which is not an urban bus.

**"Urban bus"** means a passenger-carrying vehicle powered by a heavy heavy-duty diesel engine (33 thousand Gross Vehicle Weight), or of a type normally powered by a heavy heavy-duty diesel engine, with a load capacity of fifteen (15) or more passengers and intended primarily for intra-city operation, i.e., within the confines of a city or greater metropolitan area. These buses are generally 35 feet in length or longer. Urban bus operation is characterized by short rides and frequent stops. To facilitate this type of operation, more than one set of quick-operating entrance and exit doors would normally be installed. Since fares are usually paid in cash or token, rather than purchased in advance in the form of tickets, urban buses would normally have equipment installed for the collection of fares. Urban buses are also typically characterized by the absence of equipment and facilities for long distance travel, e.g., restrooms, large luggage compartments, and facilities for stowing carry-on luggage.

**“Verified”** means that a diesel emission control strategy or system has received approval from the Executive Officer according to the “Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines” in title 13, CCR, commencing with section 2700, and incorporated by reference.

**“Zero Emission Enabling Bus”** means a bus that meets all of the following criteria:

- The engine has been certified as an urban bus engine or is in the process of being certified as an urban bus engine by the ARB to meet applicable 2010 standard as described in Title 13, CCR, section 1956.8(a)(2)(A)<sup>2</sup>;
- The manufacturer must present data that demonstrates that the engine emissions are at or below 50 percent of the applicable 2010 standard as described in Title 13, CCR, section 1956.8(a)(2)(A)<sup>2</sup>;
- The bus must operate on a fuel or a blend containing a fuel that is used in a zero emission bus; and
- The zero emission enabling technology cannot utilize petroleum based fuels.

**“Zero Emission Bus”** means an Executive Officer certified urban bus that produces zero exhaust emissions of any criteria pollutant (or precursor pollutant) under any and all possible operational modes and conditions. A hydrogen-fuel cell bus shall qualify as a zero-emission bus. An electric trolley bus with overhead twin-wire power supply shall qualify as a zero-emission bus. A battery electric bus shall qualify as a zero-emission bus. Incorporation of a fuel-fired heater shall not preclude an urban bus from being certified as a zero-emission bus, provided the fuel-fired heater cannot be operated at ambient temperatures above 40°F and the heater is demonstrated to have zero evaporative emissions under any and all possible operational modes and conditions.

## **APPLICATION REQUIREMENTS**

All projects shall meet the specific requirements of this solicitation. Applicants must meet these criteria and fully complete project applications to be considered for project funding consideration. Additional information may be requested during the application review process if needed.

## **APPLICATION PROCESS**

This application packet is to be completed by applicants and contains the forms and guidelines for submitting complete proposals for funding. The decisions regarding eligible applicants and proposals that are ultimately funded will be the sole discretion of the ARB. Grant applications must be complete and meet all of the requirements set forth in this application packet.

Two signed original copies and one CD of the proposals, including all the required documents must be received at the Air Resources Board headquarters at 1001 I Street, Sacramento, CA 95812 **no later than 5:00 PM, March 12, 2007.**

Mail or deliver proposals to the following address:

U.S. Postal Service Deliveries

Ms. Kathy Leuterio

Air Resources Board  
Mobile Source Control Division  
P.O. Box 2815  
Sacramento, CA 95812

Hand Deliveries

(UPS, Express Mail, Federal Express)

Ms. Kathy Leuterio

Air Resources Board  
Mobile Source Control Division  
1001 I Street  
Sacramento, CA 95814

**Postmark dates will not suffice to meet the stated deadlines.**

**No application documents may be submitted by fax or email.**

*Timelines*

Public Release of Solicitation	February 9, 2007
Application Deadline	March 12, 2007 5:00 PM
Review/Rating of Proposals	
Grantees Selected	April 12, 2007
Public Posting Notice	
Award Notification	
Deadline for Encumbrance of Funds	June 30, 2007

*Format Requirements*

The ARB strongly encourages applicants submitting proposals to be accurate, brief and clear in the presentation of their proposal/ideas.

Applications will be initially screened to determine if the application is complete. Applications will also be screened to determine that the projected bus delivery date to the operating agency is no later than June 30, 2008.

**EVALUATION AND SCORING CRITERIA**

The ARB will conduct an evaluation of each qualifying project based on the merit of the grant proposal. The maximum score is 100 points. Qualifying projects within each category will be considered for funding.

A multi-agency state team will review, evaluate, and make recommendations on the provided grant proposals. The multi-agency state team is comprised of the Air

Resources Board (ARB), California Energy Commission (CEC), California Department of Food and Agriculture (CDFA), Department of Forestry and Fire Protection (CDF), Integrated Waste Management Board (IWMB) and Water Resources Control Board (WRCB).

A panel of three ARB staff experienced with the zero emission bus program will evaluate each proposal based on the criteria described below. The maximum score possible is 100. The applicants with the highest overall score will be eligible for funding.

The following guidelines will be used by all reviewers in evaluating proposals submitted in response to the RFGP. Each individual proposal will be evaluated separately and assigned its own score based upon the criteria described below.

## Scoring

### 1. Project Cost (maximum of 15 points)

In the application provided, applicants will clearly state costs for each item included in their proposed plan. Costs will include all estimated labor, overhead costs, and material and product fees associated with each item in the proposed plan. For items with many variables, applicants will provide cost ranges for various likely scenarios. Total funds allocated for transit bus projects is estimated at \$2 million. Scoring will be weighted as follows:

Project Cost-Proposal Characteristics	Points Earned
Costs are less clear, not inclusive of all potential fees, and/or the total costs appear too high for the level and quality of work to be performed.	<b>0 – 5 points</b>
Costs are represented clearly and are inclusive of all potential fees, but appear too high for the level and quality of work to be performed.	<b>6 – 10 points</b>
Costs are represented clearly, are inclusive of all potential fees, and are appropriate for the level and quality of work to be performed.	<b>11 – 15 points</b>

### 2. Propulsion System (maximum 15 points)

For each individual vehicle, mark all that apply.

Propulsion System Proposal Characteristics	Points Earned
Project utilizes hydrogen fuel for propulsion system	<b>5 points</b>
Project utilizes a fuel cell for the propulsion system	<b>5 points</b>
Project utilizes a battery for the propulsion system.	<b>5 points</b>

### 3. Emissions (maximum 15 points)

Indicate the description that best describes the vehicle.

<b>Emissions Proposal Characteristics</b>	<b>Points Earned</b>
All other Zero Emission Enabling Buses	<b>5 points</b>
Zero Emission Enabling Bus [can demonstrate 75 percent less emissions than the applicable 2010 exhaust emission standards as described in Title 13, CCR, section 1956.8(a)(2)(A) <sup>2</sup> ]	<b>10 points</b>
Zero Emission Bus	<b>15 points</b>

### 4. Bus Parameters and Operation (maximum 15 points)

<b>Bus Parameters and Operation Proposal Characteristics</b>	<b>Points Earned</b>
Length of Bus (40 feet scores most points, no points awarded less than 20 feet)	<b>0 – 5 points</b>
Plan for operation during and after the funded program (longer in revenue operation will score most points)	<b>0 – 5 points</b>
Number of seated passengers (35 seated passengers scores most points, no points awarded if less than 15 seated passengers)	<b>0 – 5 points</b>

### 5. Match Funding (maximum 10 points)

#### Minimum Requirements:

Applicants must clearly state exactly how much State funding they are applying for. Each proposal will present a spread sheet itemizing costs to be applied as matching costs. Each will detail their estimates of all capital equipment, facility, and personnel costs, clearly showing their portion of any cost matches. Points only awarded if application shows match funding above 50 percent.

<b>Match Funding Proposal Characteristics</b>	<b>Points Earned</b>
State funds matched with non state funds (scored on a ratio of bidder to State funding).	<b>0 – 5 points</b>
Type of companies matching funds. Applicants with a higher percentage of non-governmental funds will score higher (scored on a ratio of bidder to non-governmental funding).	<b>0 – 5 points</b>

### 6. Size of Operating Agency (maximum 5 points)

For each individual vehicle, indicate the description that best describes the operating agency, the placement and operation of the vehicle, and the terminal where the bus will be located.

<b>Operating Agency Size Proposal Characteristics</b>	<b>Points Earned</b>
Agencies with over 200 buses (urban and other bus types) in revenue service score most points	<b>0 – 3 points</b>

Agencies with over 200 urban buses <sup>3</sup> in revenue service score most points, no points awarded for agencies with less than 50 urban buses).	<b>3 – 5 points</b>
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**7. Fueling Path of Operating Agency (maximum 5 points)**

For each individual vehicle, indicate the description that best describes the placement and operation of the vehicle.

<b>Proposal Characteristics</b>	<b>Points Earned</b>
Agencies that are not subject to the ZBus Regulation	<b>3 points</b>
Agencies on Alternative Fuel Path that are subject to the ZBus Regulation	<b>5 points</b>

**8. Application Requirements and Clarity (maximum 10 points)**

Applicant proposals will be evaluated based upon the ability of their proposed communications plans to adhere to the Scope of Work provided and meet ARB’s goals. Incomplete applications will not be considered or scored.

Scoring will be weighted as follows:

<b>Application Proposal Characteristics</b>	<b>Points Earned</b>
Proposal is unclear and/or not organized, and/or does not provide the highest impact for the funding provided.	<b>0 – 3 points</b>
Proposal is less clear and/or less organized, and considers the budget.	<b>4 – 6 points</b>
Proposal is clear, concise, and organized well. Vehicles and operation schedule maximize the budget	<b>7 – 10 points</b>

**9. Knowledge and Experience (maximum 10 points)**

Proposals will be evaluated based upon the experience applicable to the project requested in this solicitation. Applicants are invited to apply to augment funding for existing programs, or for funding that will support additional buses or new bus development. Applicants shall provide information to demonstrate how they have met the qualifications as detailed in the proposal.

**Minimum Requirements:**

Applicants must be able to provide proof the company, if a corporation, is in good standing with the Secretary of State, and is qualified to do business in the State of California. For applicants that are non-profit organizations, provide proof of non-profit status. Also, attach copies of current business licenses, professional certifications, resumes, proof of financial solvency or stability (e.g., balance sheets and income statements for three years, and other credentials).

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<sup>3</sup> Transit agencies with over 200 urban buses are subject to the zero emission bus regulation.

Project Manager proposed must have at least five years experience in purchasing and placing buses in revenue service and have experience managing successful alternative fueling projects. Applicants must possess significant active experience in transit operations such as developing and implementing an operating and maintenance program for buses, a plan to provide information to educate, inform and promote the bus and its benefit to the public, and oversight of the timeline for bus placement and operation.

Scoring will be weighted as follows:

Experience Proposal Characteristics	Points Earned
Applicant meets the minimum qualifications but lacks in experience applicable to the project requested.	<b>0 – 3 points</b>
Applicant demonstrates qualifications to carryout the scope of work.	<b>4 – 6 points</b>
Applicant demonstrates extensive and/or strong knowledge and experience directly applicable to the type of project requested in this solicitation.	<b>7 – 10 points</b>

## MONITORING AND REPORTING REQUIREMENTS

Quarterly updates shall be provided to staff, starting with the design and construction of the bus and continuing through the operation. Monitoring and reporting parameters need to be compared to conventional bus technology operation on the following parameters: miles driven per bus in revenue service, miles between propulsion related road calls, miles between road calls, availability of bus for pull out, fuel economy, fueling costs, infrastructure costs, initial cost of bus, maintenance costs of propulsion related components, warranty of power plant and propulsion related components, bus down time (scheduled and unscheduled), safety incidents, driver and mechanic training conducted, and maintenance (both scheduled and unscheduled).

A draft report shall be submitted by March 31, 2009, and contain, at a minimum, the following information:

- a brief description of the technology utilized, identification of bus manufacturer, and the product specifications;
- a narrative and qualitative comparison with similar conventional buses on the following parameters: miles driven per bus in revenue service, miles between propulsion related road calls, miles between road calls, availability of bus for pull out, fuel economy, fueling costs, infrastructure costs, initial cost of bus, maintenance costs of propulsion related components, warranty of power plant and propulsion related components, bus down time (scheduled and unscheduled), safety incidents, driver and mechanic training conducted, and maintenance (both scheduled and unscheduled). This data should include data from the time the transit agency receives the bus and discuss how data has or has not changed throughout the project timeline;

- transit personnel and passenger qualitative experience; and
- a financial summary of the capital costs of bus purchases and/or leases and fueling infrastructure.

A final report shall be submitted by June 30, 2009. The final project report must contain an update of the information included in the draft report (significant changes and or events must be qualitatively discussed). In addition, the following information must also be addressed:

- a financial summary of capital costs of demonstration program, including bus purchases and/or leases, fueling infrastructure, any new facilities or modifications, and annual operating costs; and
- the report must describe the highlights and challenges of what was involved in successfully placing the bus in service. The report must contain description of each of the main stages involved from planning through completion and operation of the bus. The report must include a list of recommendations that might benefit other transit agencies that purchase a bus of similar design in the future. A draft of the final report must be submitted to ARB staff for review and comment at least sixty (60) days before the submission of the final report.

## **DISBURSEMENT OF FUNDS**

Proposed Payment Schedule – Funds will be disbursed over the life of the grant project. Proposal must include a recommended schedule of payments or invoices for the duration of the project. Payments must have clear documentation and back up and be clearly defined and based on the completion of specific milestones.

Here are some potential milestones: receipt of bus, placement of bus in revenue service, draft and final reporting, testing and certification, and operation. It must be noted that the State of California does not pay for services or products in advance.

Example of a proposed payment schedule:

- First installment paid at time contract between the transit agency and bus manufacturer is signed
- Second installment paid at delivery of bus (new or upgraded) to transit agency
- Third installment paid at time bus is revenue service
- Fourth installment paid at time of six month report
- Fifth installment paid at time of final report

Alternative schedules and milestones will be considered.

## **CONTACT PERSONS**

Please contact Kathy Leuterio or Katrina Sideco for information relating to this grant. Questions and correspondence should be directed to:

Kathy Leuterio  
Air Resources Board  
Mobile Source Control Division  
P.O. Box 2815  
Sacramento, CA 95812  
Phone: (916) 322-1731  
[STTB@arb.ca.gov](mailto:STTB@arb.ca.gov)

Katrina Sideco  
Air Resources Board  
Stationary Source Division  
P.O. Box 2815  
Sacramento, CA 95812  
Phone: (916) 323-1082  
[STTB @arb.ca.gov](mailto:STTB@arb.ca.gov)

## **REQUIRED ELEMENTS**

The proposal must include, at the minimum the information described below:

### **1. Qualifications and Experience**

All applicants shall provide information to demonstrate how they have met the minimum qualifications as detailed previously in Minimum Qualifications for Applicants, page 4. The proposal must provide clear, straightforward and concise descriptions of the applicant's ability to satisfy the requirements of the RFGP. The proposal must be complete and accurate.

Applicants must be able to provide proof the company, if a corporation, is in good standing with the Secretary of State, and is qualified to do business in the State of California. For applicants that are non-profit organizations, provide proof of non-profit status. Also, attach copies of current business licenses, professional certifications, resumes, proof of financial solvency or stability (e.g., balance sheets and income statements for three years, and other credentials).

Project Manager proposed must have at least five years experience in purchasing and placing buses in revenue service and have experience managing successful alternative fueling projects. Applicants must possess significant active experience in transit operations such as developing and implementing an operating and maintenance program for buses, a plan to provide information to educate, inform and promote the bus and its benefit to the public, and oversight of the timeline for bus placement and operation.

### **2. Partners/Subcontractors**

Proponents may partner with other entities. Responsibility for deliverables lies with the primary proponent. The proposal must provide the names and contact information, for

any and all subcontractors and partners. Letters of commitment from the partners, and what they are committing to should also be included in the proposal.

### **3. Proposal Qualifications**

Proposal must provide a description of the vehicle attributes including technology type, performance characteristics, on board fuel storage capacity and unique features.

### **4. Vehicle Minimum Qualifications**

The proposal must demonstrate that each vehicle to be funded is a new bus or an upgraded bus that can be utilized by a transit agency for public use in California. The vehicle must meet the requirements of a zero emission bus or a zero emission enabling bus as defined in the definition section of this RFGP.

Any modification of an original gasoline or diesel fueled bus to allow the use of liquefied and gaseous hydrogen as a fuel shall not in its operation, function, or malfunction, result in any unsafe condition endangering the motor vehicle, its occupants, other persons, or property in close proximity to the vehicle in accordance with the safety requirements specified for the original vehicle.

### **5. Deliverables**

Proponent shall provide a plan that spells out the following processes: process to receive bus no later than June 30, 2008, process for putting bus in revenue service as defined in this RFGP no later than September 30, 2008, timeline for reports, monitoring of funds, and communication with ARB (to include reports).

The plan must acknowledge acceptance of the following requirements for additional deliverables as listed below. After the execution of the contracts with the ARB, the selected bidders must communicate with the contracts manager the progress of the bus construction. To ensure this takes place in a regular manner, the following deliverables will be expected:

- Immediate submittal of incident reports, during bus operation.
- Monthly status reports will be scheduled and conducted via teleconference line, or in person with staff and management of the Sustainable Transportation Technology Branch.
- Quarterly vehicle reports will be required, once the bus is received by the operating agency.
- Quarterly written progress reports that summarize project status, achievement of milestones, preliminary findings, deviations from plan, new recommendations, if any, financial summary and invoices due to the ARB.

- Quarterly progress meetings between applicant, transit agency and ARB personnel, held on-site at the transit agency, if necessary. Submittal of written notes/summary of meeting required.
- Final report must describe the highlights and challenges of what was involved in successfully placing the bus in service. The report must contain a description of each of the main stages involved from planning through completion and operation of the bus. The report must include a list of recommendations that might benefit other transit agencies that purchase a bus of similar design in the future. A draft of the final report must be submitted to ARB staff for review and comment at least sixty (60) days before the submission of the final report.
- From the beginning of the project, forward a copy of all training, performance, specification manuals, schematics, operators, maintenance and troubleshooting manuals to ARB staff as soon as available.

## **6. Timeline/Milestones**

- Proponent will prepare a timeline with all relevant milestones identified and provide a proposed plan for making sure timeline is met. All funds must be disbursed by June 30, 2009.

## **7. Project Description**

The written proposal will be presented in two (2) main sections, the Technical Chapter and the Cost Chapter.

- Summary – A concise write up outlining the main thinking behind the proposal including the features and benefits of the proposal.
- Project Schedule – The proposal must include a comprehensive calendar of the entire project. This must include the time of the submission of the bid, to the completion of the work funded by this solicitation, and projected future plans, if any. The State values projects that have a plan to operate beyond the contract timeframes. The calendar must include timeframes for each major task, highlighting the milestones, necessary paths and responsible party for each. These tasks will include bus delivery, date bus is in revenue service, draft report, final report, and other relevant tasks.
- Engineering – The proposal must include description of type of vehicle and propulsion system, proposed contract, identify fueling site, letter from all partners securing funding, a schedule for receipt of bus, and placement of bus in revenue service. Include text describing each of the proposed test/certification procedures in order to verify and validate the correct performance, as well as adequate safety of the vehicle.

- Proposal Requirements – The proposal must clearly outline and provide detailed information as to how each of the minimum qualifications has been met, and to what extent the minimum qualifications have been exceeded.
- Management Plan – The proposals must include a project management plan including the management structure and project organization.
- Qualifications Section – The proposals must name all partners, their qualifications, capabilities and roles. The proposal must identify by name all key personnel assigned to the project and clearly describe their individual areas of responsibility. For each individual, include company, and individual resumes, and contact information.

## **8. Cost Detail Format and Requirements**

The Cost Chapter of the proposal must include, at the minimum, the information described below:

- Summary – concise write-up outlining the different estimated costs of the bus.
- Cost Spreadsheet – This contract is a firm fixed cost contract. All costs must be provided for each task and deliverable.
- Labor – List total number of hours and hourly billing rate for each level of professional staff. List direct labor rate, overhead rate and amount, fringe benefit rate and amount. List administrative rate and amount. Provide a justification of rates of pay as well.
- Subcontractor costs – List subcontractor costs and identify each contractor where possible by name. List charges per hour and by day.
- Travel Costs – Indicate amount of travel cost and basis of estimate to each destination, purpose of trip, airline fare and/or mileage expense, per diem costs lodging costs and car rental. Travel costs must be in accordance with the State of California Department of Personal Administration guidelines used for State employee travel.
- Other Direct Costs – This category may include such items as postage, mailing, courier, printing/reproduction costs, etc. Provide basis of estimate for these costs.
- Equipment costs – Provide proposed prices of commercially available off-the-shelf equipment/components (where available) and include catalog price or price list.
- Maintenance costs – Include an estimate of maintenance costs over the contract period. Include description of all warranty coverage and an estimate of routine and preventative maintenance, as well as a reserve for unscheduled maintenance.

- Co-funding – Proponents may provide in-kind services or match funding. Application should show total Federal, State, and local government funds along with funds from other groups. Applicants with a higher percentage of non governmental funds will score higher.
- Expenditures – Proponents shall prepare a quarterly report containing the elements enumerated in the Monitoring and Reporting Requirements section.

The costs for the proposed work should be broken down and identified. Please expand on each category as appropriate to cover fully all proposed costs. In addition, please itemize fully those costs that you plan on using to obtain State matching funds. Identify and justify any and all overhead costs.

### **9. Proposed Payment Schedule**

Proposal must include a recommended schedule of payments or invoices for the duration of the project. Payments must have clear documentation and back up and be clearly defined and based on the completion of specific milestones. Include milestones such as receipt of bus, placement of bus in revenue service, draft and final reporting, testing and certification, and operation. It must be noted that the State of California does not pay for services or products in advance.

### **10. Cost Share Requirements**

Applicants must clearly state exactly how much State funding they are applying for. Each proposal will present a spread sheet itemizing costs to be applied as matching costs. Each will detail their estimates of all capital equipment, facility, and personnel costs, clearly showing any cost sharing.

Allowable hydrogen cost share items: generating, storage, purification, dispensing and related support equipment. Site preparation, engineering, consulting, and labor related to the station. Time and materials spent towards education and community outreach events and efforts.

Items not allowed to be counted in the cost share equation: existing vehicles, real estate and feed stocks used to generate hydrogen.

## Application Checklist

### Alternative Fuels Incentive Program

#### 1. APPLICANT INFORMATION

Company \_\_\_\_\_  
Street Address \_\_\_\_\_  
City/State/Zip Code \_\_\_\_\_  
Primary Contact \_\_\_\_\_  
Phone \_\_\_\_\_ E-mail \_\_\_\_\_

#### 2. AFIP Funding Requested

Amount of Funds Requested \$ \_\_\_\_\_

##### Project Type

E85  
Biofuels  
PHEVs  
Buses  
Incentives  
Outreach

#### 3. Matching Funds

No

Yes      Amount \$ \_\_\_\_\_ Percentage of project \_\_\_\_\_

Commitment letters from partners showing matching fund commitment

#### 4. Budget

Co-funding  
Expenditures

#### 5. Timeline

#### 6. Project Checklist

**APPENDIX A**  
**Application Form**

## TRANSIT BUS PROJECTS APPLICATION FORM

Please print clearly or type all information on this application and on all attachments.

### A. APPLICANT INFORMATION

1. Company Name/Organization Name/Individual Name:		
2. Business Type:		
3. Contact Name and Title:		
4. Person with Contract Signing Authority (if different from above):		
5. Business Mailing Address and Contact Information:		
Street:		
City:	State:	Zip Code:
Phone: (     )		Fax: (     )
E-mail:		

I hereby certify that all information provided in this application and any attachments are true and correct.

Printed Name of Responsible Party:	Title:
Signature of Responsible Party:	Date:

### Third Party Certification

I have completed the application, in whole or in part, on behalf of the applicant.

Printed Name of Third Party:	Title:
Signature of Third Party:	Date:
Amount Being Paid for Application Completion in Whole or Part:	Source of Funding to Third Party:







## E. STAFF

Include the name, title, contact information and staff labor costs for all staff working on the project and attach resumes.

1.
2.
3.
4.

*If more room is needed, this form may be copied or recreated.*

## F. SUBCONTRACTORS

Please include the name and contact information for any subcontractors, the work they will be performing and their experience. Remember to attach letters of commitment from all partners and subcontractors with this application.

1.
2.
3.
4.

*If more room is needed, this form may be copied or recreated.*

**TRANSIT BUS PROPOSALS**

**A. PROJECT DESCRIPTION AND BACKGROUND OF PROGRAM**

**B. DESCRIPTION OF OPERATING AGENCY**

**C. SUMMARY OF PROJECTED OPERATION SCHEDULE AND PLANS FOR BUS AFTER GRANT IS COMPLETED**

**D. TOTAL PROJECT COST AND REQUESTED FUNDING**

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**E. AMOUNT AND STATUS OF THE MATCHING FUNDING**

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**F. AMOUNT AND JUSTIFICATION FOR OVERHEAD COSTS**

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