



Air Resources Board



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Edmund G. Brown Jr.
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DATE: December 20, 2011

Mail-Out #MSC 11- 37

TO: All Interested Parties

SUBJECT: THE LOWER-EMISSION SCHOOL BUS PROGRAM – GUIDELINE REVISIONS

This Mail-Out provides guidance to air districts and public school districts participating in the Lower-Emission School Bus Program (LESBP). It is intended to incorporate recently chaptered legislation, Assembly Bill (AB) 462 (Lowenthal) and AB 470 (Halderman), provide the emission criteria for Calendar Year 2012 replacement contracts, clarify tracking and reporting requirements of earned interest, clarify cost-caps, and correct School Bus Program Advisory 08-001.

These changes and clarifications are being made via mail-out under the authority granted by the Board during the March 25, 2010 board hearing.

Expanded Funding Opportunities for AB 923 Projects – Effective January 1, 2012

Effective January 1, 2012, AB 462 and AB 470 authorizes the \$2 Department of Motor Vehicles (DMV) fee collected through AB 923 to be used to fund three new project categories: natural gas fuel tank replacements, refueling infrastructure maintenance, and school bus retrofit projects. AB 462 and AB 470 require the new funding sources to be implemented pursuant to the LESBP. Therefore this mail-out is being issued to implement these changes and specifies the criteria for the new categories.

These three new project categories are an addition to the following existing four clean air projects allowed to be funded with AB 923 \$2 DMV fees:

- Projects eligible for grants under the Carl Moyer Memorial Air Quality Standards Attainment Program.
- New purchase of school buses pursuant to the LESBP.
- New purchase, retrofit, repower, or add-on of equipment for previously unregulated agricultural sources of air pollution.
- Accelerated vehicle retirement or repair program.

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>.

California Environmental Protection Agency

Criteria for On-Board Natural Gas Tank Replacements Funded with AB 923 funds:

The Department of Transportation requires on-board compressed natural gas (CNG) tanks to be inspected by the California Highway Patrol (CHP) every three years or 36,000 miles. These tanks are typically replaced at the end of the manufacturer's service life, which is approximately 15 years.

Recently chaptered AB 462 authorizes local air districts to utilize AB 923 funds to pay for the replacement of on-board natural gas fuel tanks that are on school buses 14 years or older and owned by a public school district. Criteria for these projects are as follows:

- Air districts must meet all administrative requirements, such as those pertaining to contracting, reporting, invoicing, tracking administrative costs, and records retention as outlined in the 2008 LESBP Guidelines. Air districts may use up to five percent of funds for administration. In addition, because these are local funds, air districts may impose more stringent requirements on these projects.
- The maximum funding amount per school bus cannot exceed \$20,000.
- School buses must be at least 14 years old but no older than 16 years to receive funding. Because the service life for most school buses is 30 years and tank life is 15 years, this requirement will ensure funding does not extend the life of a school bus beyond the service life.
- School districts must provide documentation of tank expiration dates, serial numbers, and inspection dates of tanks to be replaced. Tank replacement requests may be accepted by the air district within 18 months of their expiration dates in order for the contract process to begin.
- Public school districts are eligible for funding.
- Where a Joint Power Authorities (JPA) has been formed by several public school districts, and the JPA holds ownership of the school buses, then the JPA is also eligible to participate and must fulfill school district requirements as listed.
- School districts must demonstrate bus ownership.
- School districts must provide vendor quotes for the cost of new tank replacement(s) and commit to owning and operating the bus a minimum of 5 years.
- Once a tank is replaced, school districts must submit a copy of the CHP safety inspection report (CHP forms 292, 343, 343A, and others), photos of the new tank labels on the school bus and an invoice to the air district in order to be reimbursed. The CHP requires inspection of the bus prior to it returning to service when a chassis modification occurs.

Criteria for Infrastructure Improvements of Deteriorating Natural Gas Fueling Dispensers Funded with AB 923 Funds:

The 2008 LESBP Guidelines allow ten percent of new CNG bus funding to be used for refueling infrastructure when no local refueling is available or the existing refueling site is

inadequate. AB 462 authorizes funding to pay for improvements of deteriorating natural gas fueling dispensers operated by a public school district. Criteria for these projects are as follows:

- Air districts must meet all administrative requirements, such as those pertaining to contracting, reporting, invoicing, tracking administrative costs, and records retention as outlined in the 2008 LESBP Guidelines. Air districts may use up to five percent of funds for administration. In addition, because these are local funds, air districts may impose more stringent requirements on these projects.
- Air districts have the option of developing a voucher or rebate program for dispenser improvements. However, Air Resources Board (ARB) staff must review and approve the program prior to implementation.
- Public school districts that operate natural gas fueling infrastructure are eligible for funding.
- Where a JPA has been formed by several public school districts, and the JPA holds ownership of the school buses, then the JPA is also eligible to participate and must fulfill school district requirements as listed.
- School districts may only request one-time funding amounts not to exceed \$500 per dispenser.
- School districts must document that buses in their fleet use the natural gas fueling station and document the fueling station's deterioration. This may be accomplished with photos and copies of inspection reports by fueling station personnel.
- School districts must provide vendor quotes for the cost of repairing or making improvements to fueling dispenser infrastructure.
- School districts must submit a cover letter confirming the repairs or improvements were completed along with the invoice to the air district in order to be reimbursed.

Criteria for Retrofits Funded with AB 923 Funds:

AB 470 authorizes AB 923 funding to pay for retrofitting of emissions control equipment for existing school buses pursuant to the LESBP. Existing retrofit project criteria in Chapter IV of the 2008 LESBP Guidelines and subsequent Mail-Outs contain the requirements that apply to these projects. The administrative cap for AB 923 funded retrofits is capped at five percent.

**2012 Model Year (MY) Replacement Bus Emission Criteria - Effective
January 1, 2012 to December 31, 2012**

When the LESBP 2008 Guidelines were approved emission criteria for replacement vehicles were included. Emission criteria for 2010 and newer model year school buses were required to meet the 0.2 grams per brake horsepower-hour (g/bhp-hr) oxides of nitrogen (NO_x) and 0.01 g/bhp-hr particulate matter (PM) standards.

Due to the limited number of MY 2010 school buses that were being manufactured and certified at or below the 0.2 g/bhp-hr NOx emission levels, the NOx emission criteria for replacement school buses being funded through the LESBP was changed to 0.50 g/bhp-hr for the NOx family emission limit (FEL) and the NOx + Non-methane Hydrocarbons FEL during the March 2010 Board meeting. This change was for the NOx emission standard ONLY; the PM requirement of 0.01 g/bhp-hr is still in effect and has not changed. This change allowed continued funding for the cleanest school buses available.

Staff was also directed to review this requirement annually and adjust it accordingly. As such, ARB staff has reviewed executive orders for 2012 MY school bus engines and determined manufacturers will continue to utilize current engines in Calendar Year 2012. Therefore, the emission criteria for replacement school buses being funded through the LESBP will remain unchanged - 0.50 g/bhp-hr for NOx FEL and 0.01 g/bhp-hr PM for contracts executed through calendar year 2012.

This information will continue to be evaluated and updated each year.

Clarification of Existing Requirements – Effective Immediately

The following section provides clarification as requested by stakeholders regarding earned interest and cost caps.

Tracking and Reporting Earned Interest:

Interest must be spent within the same parameters of the source of funds upon which the interest was earned. Air districts that are implementing agencies are required to calculate and report earned interest to the ARB on each semi-annual report. Section Q. 3 of Chapter V of the 2008 LESBP Guidelines gives detailed guidance for calculating, tracking, and expending earned interest. Earned interest and interest expenditures are reported in the appropriate fields of the LESBP database.

During the past two years, the LESBP received approximately \$196 million in funding from six bond installments under Proposition 1B. Regardless of the funding source, interest must be fully expended by June 30, 2012, or be returned to the ARB within 60 days of the deadline.

Below is a list of each installment of bond funding, the dates of the installment, and a brief description of the restrictions associated with each.

- The 1st installment of \$12 million was issued on April 2, 2009 for disbursements made to local air districts prior to December 2008. Expenditures are not subject to additional restrictions beyond those already in the 2008 LESBP Guidelines;

- The 2nd installment of \$71.1 million was issued on April 28, 2009. As outlined in Mail-Out #MSC 09-24, these are Build America Bond (BAB) funds that do not allow expenditures for contracts for services associated with the maintenance of retrofit devices and do not allow expenditures for administration costs;
- The 3rd installment of approximately \$56.7 million was issued on October 15, 2009. As outlined in Mail-Out #MSC 10-11, these are BAB funds and do not allow expenditures for contracts for services associated with the maintenance of retrofit devices and do not allow expenditures for administrative costs;
- The 4th installment of \$283,700 was also issued on October 15, 2009. As outlined in Mail-Out #MSC 10-11, these funds may only be used for administrative costs, and not project costs;
- The 5th installment of approximately \$44.5 million was issued on March 18, 2010. As outlined in Mail-Out #MSC 10-36, these bond funds are subject to the restrictions in the 2008 LESBP Guidelines;
- The 6th installment of approximately \$9.9 million was issued on April 1, 2010. As outlined in Mail-Out #MSC 10-36, these are BAB funds and as with the previous BAB funds, do not allow expenditures for contracts for services associated with the maintenance of retrofit devices and do not allow expenditures for administration costs.

Cost caps for school bus replacements using various fuel types:

Stakeholders have requested review and clarification of the cost caps for replacement school buses using various fuel types.

Section D of Chapter III of the 2008 LESBP Guidelines sets a cost cap of \$140,000 to replace a school bus with State program funds. To maximize the use of State funds, school districts are required to provide \$25,000 in match funding when replacing eligible middle aged (1977-1986 MY) school buses; match funding is not required when replacing pre-1977 MY buses. Local funds, such as those generated by AB 923 or AB 2766, can be used to assist school districts with the match funding requirement.

Alternative-fueled buses, as defined in Mail-Out MSC# 10-45, may be powered by compressed or liquefied natural gas, liquefied petroleum gas (LPG or propane), electricity, methanol, ethanol fuels, fuel cells, or other advanced technologies that do not rely on diesel fuel. Section E of Chapter III of the Guidelines state: "Eligible air district funds can be also used to offset the higher cost of advanced technologies, such as hybrid-electric and alternative-fueled buses, if the cost for those buses exceeds the total of the cost cap and matching funds." This allows the district to fund an alternative-fueled bus over \$165,000 using AB 923 funds. ARB would like to further clarify that, for the purchase of an alternative-fueled bus, as described above, regardless of the funding source (AB 923, etc.), there is no cap on the amount of funds that may be used to augment the maximum of \$140,000 in Proposition 1B funds.

For diesel-fueled buses, Section E of Chapter V of the Guidelines state: "AB 923 funds may be used to meet the match funding requirement for replacing 1977-1986 model year buses. If an air district uses AB 923 funds as the primary source of funding to replace a 1977-1986 model year bus, the air district may also cover the match funding requirement with AB 923 funds." This allows the air district to fund up to \$165,000 for a diesel-fueled bus (\$140,000 cost cap + \$25,000 match funds) using AB 923 funds or a combination of AB 923 funds (\$25,000) and Proposition 1B funds (\$140,000).

Therefore, regardless of the fuel type a school bus uses, a maximum of \$140,000 in Proposition 1B funds may pay for a new replacement bus. A summary of the cost caps for buses using various fuel types is presented in the LESBP Cost Caps Table on the following page.

LESBP Cost Caps Table:

The following table clarifies the various cost caps for all project types funded pursuant to the LESBP.

LESBP Cost Caps

Project Type	Maximum Proposition 1B Funds	Proposition 1B Funds combined with AB 923 Funds	Maximum AB 923 Funds
Diesel-Fueled Bus Replacement	\$140,000	\$165,000	\$165,000
Alternative-Fueled Bus Replacement ¹	\$140,000	No cap	No cap
Diesel Retrofit Project per Bus	\$20,000	\$20,000	\$20,000
Diesel Retrofit Maintenance – includes purchase of a cleaning device system or paying for filters to be cleaned with a service contract	\$2,500 within the \$20,000 retrofit cap	\$2,500 within the \$20,000 retrofit cap	\$2,500 within the \$20,000 retrofit cap
Diesel Retrofit Infra-structure – includes electrical outlets necessary for regeneration of active retrofit systems	No cap on infrastructure, but must be within the \$20,000 retrofit cap	No cap on infrastructure, but must be within the \$20,000 retrofit cap	No cap on infrastructure, but must be within the \$20,000 retrofit cap
Diesel Retrofit Data logging	\$300 within the \$20,000 retrofit cap	\$300 within the \$20,000 retrofit cap	\$300 within the \$20,000 retrofit cap
Alternative Fuel Infrastructure for alternative-fueled bus replacements	\$14,000	\$14,000	\$14,000
On-board Natural Gas Tank Replacements	\$0	\$0	\$20,000 per bus
Fueling Dispenser Improvements	\$0	\$0	\$500 per dispenser

¹ In addition to these funds, Hybrid Voucher Incentive Project (HVIP) funding may be available. See the program's website for details: <http://www.californiahvip.org/>

Correction of School Bus Program Advisory 08-001 – Effective Immediately

Advisory 08-001: “Documentation of Compressed Natural Gas (CNG) Fueling Station and Active Retrofit Devices Infrastructure Expenditures”, contained a typographical error and is corrected to read:

2. School Bus Infrastructure for Active Retrofit Devices

Within the \$20,000 retrofit funding cap, air districts may allocate funding for infrastructure (such as additional electrical outlets) needed to accommodate active retrofit devices. This funding is separate from the \$2,500 allocation for diesel particulate filter (DPF) maintenance.

Air districts shall retain following documents for infrastructure costs funded with State program funds.

- Application (can be the same as for the active retrofit devices but includes a section addressing the need for infrastructure funding)
- ~~Documentation for alternative-fuel infrastructure must state:~~
 - ~~the current infrastructure (number of outlets) on-site~~
 - ~~the number of vehicles that use the infrastructure~~
- Resolution from the school district governing board (or other documentation signed by a duly authorized official) authorizing the submittal of the application and identifying the individual authorized to implement the retrofit project.
- Vendor quotes
- Executed contracts
- Copy of the purchase order
- Invoice(s)
- Proof of payment (i.e. a photo copy of the check)

If you have questions regarding this Mail-Out, please contact Ms. Janet Page, Air Pollution Specialist, at (916) 324-1988 or via email at jpage@arb.ca.gov.

Sincerely,

\s\

Robert H. Cross, Chief
Mobile Source Control Division

cc: See next page

All Interested Parties
December 20, 2011
Page 9

cc: Janet Page
Planning and Regulatory Development Section