

Section III: Demonstration of Zero- and Near-Zero-Emission Vehicles and Equipment -- \$5-15 million

Overview

The goal of the demonstration project portion of the AQIP is to provide funding for emerging strategies that can reduce both criteria and toxic air pollution emissions in the near future. To best serve the citizens of California and the intent of AB 118, demonstration funding needs to target promising emission reducing strategies that are near deployment, but lack the funds to demonstrate the technology.

Since early December 2008 and continuing until late February 2009, ARB staff has been conducting a series of public demonstration project work group meetings (See Table III-1). The work group meetings have provided the opportunity for stakeholders to propose potential demonstration projects and to provide comments on other potential projects. Staff is also interested in ideas from local air districts interested in receiving AQIP funding to implement promising demonstration projects.

The five project categories being considered by ARB for demonstration project funding in the FY 2009-10 AQIP Funding Plan are locomotive, marine, agriculture, off-road and transit and school bus projects. Staff welcomes suggestions from air districts and other entities on the possibility of receiving AQIP funds to demonstrate promising technologies in these five source categories. Demonstration projects will generally focus on accelerating the viability and ultimate commercialization of zero- and near-zero-emission technologies. Staff's proposed demonstration project funding target in the FY 2009-10 AQIP Funding Plan is \$5-15 million.

Agriculture Project Category

ARB staff is conducting work group meetings to evaluate agricultural engine and equipment projects that have the potential to achieve substantial emission reductions in criteria pollutants. Efficiencies in engine and equipment operations can provide cost savings to farmers, while providing cost-effective criteria pollutant emission reductions. Demonstration projects staff is evaluating as part of the work group meetings include:

- Engine Thermal Efficiency Improvements
- Auxiliary Engine Electrification

Demonstration Projects – Additional Information

ARB staff has conducted seven public demonstration project work group meetings, with five additional meeting scheduled through late February. Private meetings can be also be held at stakeholders' request to discuss potential projects that contain proprietary sensitive information. If additional demonstration project work group meetings are warranted, staff shall announce these additional meetings via AQIP listserv and post this information to the AQIP meeting website:

<http://www.arb.ca.gov/msprog/aqip/meetings/meetings.htm>. Staff expects to hold at least one additional demonstration project work group meeting prior to the demonstration project solicitation period in Summer/Fall 2009.

Staff Contact – Marine, Locomotive, Bus, and Off-Road Categories:

Earl Landberg

Tel: (916) 323-1384

E-mail: elandber@arb.ca.gov

Staff Contact – Agricultural Category:

Meri Miles

Tel: (916) 322-6370

E-mail: mmiles@arb.ca.gov

Section VI: New Zero-Emission Agricultural All-Terrain Work Vehicle (Agricultural ATV) Rebate Program – \$800,000 - \$1.3M

Overview

Off-road all-terrain vehicles are frequently used in the agricultural industry as they are versatile, affordable, fuel efficient, and suitable for areas where soil compaction may be a concern. The cost of an electric agricultural ATV is approximately one-third more than its gasoline-powered counterpart. The incremental difference in price point may deter growers from making this investment. An incentive program would accelerate commercialization of this technology and have the immediate benefit of reducing criteria pollutant and greenhouse gas emissions. It may also lead to an economy of scale for zero emission agricultural ATVs by reducing production and sales costs as volume increases.

Electric agricultural ATVs also have applications outside of the agricultural sector – for utility purveyors for use in maintaining linear transmission features, substations, and other utility infrastructure not accessible by road. Electric agricultural ATVs could be used in applications not appropriate for gasoline-powered ATVs, such as high spark areas, tunnel maintenance, and indoors.

Agricultural ATV Rebate Program Implementation

Staff believes off-road funding should be directed toward providing incentives for zero-emission heavy-duty agricultural ATVs for commercial agricultural and other work applications. Table IV-1 identifies staff's proposed funding target for off-road zero emission agricultural ATVs in the FY 2009-10 AQIP Funding Plan.

Table IV-1: Proposed FY 2009-10 Agricultural ATV Funding

Approximate Number of Vehicles	Average Vehicle Incentive Amount	Total FY 2009-10 Agricultural ATV Funding
400	\$2,000 to \$3,000	\$800,000 to \$1,300,000

Staff is proposing the program be structured as a rebate program in which the buyer of the eligible agricultural ATV would receive a rebate for the incentive amount, redeemable at the time of the final vehicle purchase. Staff is seeking stakeholder comments regarding project implementation.

Eligible Vehicles and Incentive Amounts for Agricultural ATVs

Several manufacturers offer electric agricultural ATV products that range in application from lawn and landscape maintenance to commercial farming and ranching. Recreational off-road utility vehicles and light ATVs are typically designed with different performance goals than heavy-duty agricultural ATVs. Heavy-duty agricultural ATV specifications will be used in setting the eligibility criteria. Staff is seeking stakeholder input on eligibility criteria to ensure that program funds are directed toward work vehicles, not recreational vehicles. Eligibility criteria may be defined using specifications associated with the following parameters:

- The ATV meets ARB's definition of a zero emission vehicle
- Horsepower (hp)
- Weight
- Payload limit
- Tow capacity

Applicants will be required to show proof of California residency, or proof that the commercial operation for which the ATV would be used occurs in California. Staff is seeking input on how funds may be targeted toward non-attainment air basins.

Early indications from stakeholders suggest that an incentive for approximately one-half the incremental cost would spur consumers to buy a zero emission agricultural ATV over a fuel-powered ATV.

Additional Information

Staff conducted an agriculture-focused workgroup meeting on January 26, 2009. An additional focused group meeting will be held in mid-February to finalize off-road incentives associated with the FY 2009-10 AQIP Funding Plan. Stakeholder input will be solicited during the Spring/Summer of 2009 to discuss development of solicitations.

Staff Contact: Meri Miles
Tel: (916) 322-6370
E-mail: mmiles@arb.ca.gov