

# GRANT SOLICITATION

## Air Quality Improvement Program and Low Carbon Transportation Greenhouse Gas Reduction Fund (GGRF) Investments

### Zero-Emission Truck and Bus Pilot Commercial Deployment Projects

Mobile Source Control Division  
California Air Resources Board  
October 1, 2015



California Environmental Protection Agency

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 **Air Resources Board**

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Air Quality Improvement Program and Low Carbon Transportation Greenhouse Gas  
Reduction Fund Investments

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October 1, 2015

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## I. SUMMARY

The California Air Resources Board (ARB or Board) is soliciting Grantees to implement and administer Zero-Emission Truck and Bus Pilot Commercial Deployment Projects under the Air Quality Improvement Program (AQIP) and Low Carbon Transportation Greenhouse Gas Reduction Fund (GGRF) Investments, as identified in the Fiscal Year (FY) 2014-2015 Funding Plan approved by the Board in June 2014, and the FY 2015-2016 Funding Plan approved by the Board in June 2015. Currently, up to \$23,658,000 is available from FY 2014-15 funds. The FY 2015-16 Funding Plan allocated up to \$60,000,000 for projects eligible under this solicitation, however, this funding is pending approval by the California Legislature. All eligible Zero-Emission Truck and Bus Pilot Commercial Deployment Project applications submitted in response to this Solicitation will be scored and considered for funding. ARB expects to award FY 2014-15 funds after the close of this Solicitation. Projects that cannot be funded with existing FY 2014-15 funds may be considered for funding at ARB's sole discretion if additional funds are appropriated before June 30, 2016. No more than 50 percent of FY 2014-15 funds and 30 percent of total funds appropriated for this Solicitation will be awarded to a single Grantee. ARB may amend this Solicitation, if warranted, following the legislature's appropriation of additional funds. However, please note that there is no guarantee that additional funds will be appropriated.

This project is intended to help accelerate the deployment of a variety of commercially available medium- and heavy-duty zero-emission vehicles by placing a significant number of zero- and near zero emission buses and freight and delivery trucks<sup>1</sup> in strategic truck and bus "hubs." This project will provide benefits to disadvantaged communities by ensuring that funds are awarded to pilot projects located within, or directly benefitting, disadvantaged communities<sup>2</sup> across the state. Examples of types of organizations that lend well to this project concept include transit agencies, school districts, shuttle operators, and companies that offer delivery and hauling services. Zero-emission truck and bus hubs (or advanced technology clusters) support large vehicle deployments with shared infrastructure, mechanics, spare parts, workforce training, and marketing and will ultimately drive down per-vehicle costs. The pilot projects will reduce greenhouse gas (GHG) emissions and provide economic, environmental, and public health co-benefits to disadvantaged communities, while demonstrating the practicality and economic viability of wide-spread adoption of a variety of zero-emission medium- and heavy-duty vehicle technologies. All work must be completed by April 1, 2019. Specific tasks are outlined within this Solicitation. Applications are due to ARB no later than **5:00 p.m., January 29, 2016.**

This Solicitation is issued under the Assembly Bill 118 (AB 118) AQIP and the Low Carbon Transportation GGRF Investments, with all project funds coming from the

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<sup>1</sup> Although the phrase "medium and heavy duty zero-emission vehicles" is generically used throughout this solicitation, only projects including eligible vehicles that are commercially available, as described in Section IX, are eligible for funding under this solicitation.

<sup>2</sup> The disadvantaged communities, as identified by the California Environmental Protection Agency, are available at [www.calepa.ca.gov/EnvJustice/GHGInvest/](http://www.calepa.ca.gov/EnvJustice/GHGInvest/).

Greenhouse Gas Reduction Fund. The project is intended to fund pilot vehicle deployments that reduce GHG emissions and provide other environmental and economic co-benefits to disadvantaged communities as well as further the purposes of AB 32 (Nunez, Chapter 488, Statutes of 2006) by addressing the challenges facing wide-spread commercialization (i.e., economies of scale production, workforce training and vehicle maintenance and repair, and refueling infrastructure). This competitive Solicitation is open to transit agencies, school districts, local air districts, or other California-based public agencies, as well as California-based non-profit organizations that demonstrate the requisite administrative and technical expertise.

## **II. BACKGROUND**

In 2007, the *California Alternative and Renewable Fuel, Vehicle Technology, Clean Air, and Carbon Reduction Act of 2007* (AB 118, Statutes of 2007, Chapter 750) was signed into law. AB 118 created AQIP, a voluntary incentive program administered by ARB, to fund clean vehicle and equipment projects, air quality research and workforce training.

As required in Health and Safety Code (HSC) Section 44274(a), the Board adopted regulatory guidelines in 2009 for AQIP. The Guidelines for the AB 118 Air Quality Improvement Program (Guidelines)<sup>3</sup> define the overall administrative requirements and policies and procedures for program implementation based on the framework established in statute. Central to the Guidelines is the requirement for a Board-approved annual funding plan developed with public input. The funding plan is each year's blueprint for expending AQIP funds appropriated to ARB in the annual State Budget. The funding plan focuses AQIP on supporting development and deployment of the advanced technologies needed to meet California's longer-term, post-2020 air quality goals.

In 2012, the Legislature passed and Governor Brown signed into law three bills – AB 1532 (Pérez, Chapter 807), SB 535 (De León, Chapter 830), and SB 1018 (Budget and Fiscal Review Committee, Chapter 39) that established GGRF to receive Cap-and-Trade auction proceeds and to provide the framework for how the auction proceeds will be administered in furtherance of the purposes of AB 32, including supporting long-term, transformative efforts to improve public health and develop a clean energy economy. The suite of implementing legislation offers strong direction for investing a portion of the auction proceeds to benefit disadvantaged communities, including specific allocation requirements in SB 535.

In 2014, the Legislature appropriated \$200 million dollars in GGRF monies to establish a Low Carbon Transportation GGRF program that ARB is implementing in coordination with the AQIP AB 118 programs. In May of 2015, Governor Brown's proposed budget included \$350 million dollars in GGRF monies toward the Low Carbon Transportation program. As of October 1, 2015 the legislature has not yet appropriated these funds. Projects funded by the Low Carbon Transportation GGRF program must reduce GHG

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<sup>3</sup> The Guidelines for the AB 118 Air Quality Improvement Program are found in Title 13, California Code of Regulations, Chapter 8.2.

emissions and further the purposes of AB 32, with a strong emphasis on benefiting disadvantaged communities.

In order to identify the priority investments that facilitate GHG emission reductions, the Legislature directed the development of the Cap-and-Trade Auction Proceeds Investment Plan (Investment Plan).<sup>4</sup> The 3-year Investment Plan, which was released in May 2013, calls for projects that support the large-scale deployment of alternative technologies, such as zero and near zero-emission vehicles, to help achieve the State's near-term and longer-term GHG emission reduction goals. In addition, SB 535 directs at least 25 percent of funding from GGRF to be allocated toward projects that benefit disadvantaged communities and at least 10 percent to be allocated toward projects located in disadvantaged communities, as identified by the California Environmental Protection Agency (Cal/EPA).<sup>5</sup>

Also in 2014, the Legislature passed and Governor Brown signed Senate Bill 1204 (SB 1204) establishing the California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program (Chapter 524, Statutes of 2014) to be funded from GGRF. SB 1204 establishes specific requirements for prioritizing and selecting projects funded under GGRF and directs ARB to develop guidance for implementing GGRF funding through the AQIP Funding Plan process. Accordingly, the FY 2015-2016 Funding Plan for AQIP and Low Carbon Transportation GGRF Investments is designed to support development and commercialization of advanced technologies that are necessary to meet California's long-term air quality and climate goals. The Funding Plan identifies projects that (1) provide immediate emission reductions from the vehicles directly funded, and (2) set the stage for significant future emission reductions by accelerating large-scale market penetration and technology transfer to other sectors. Funding is provided for projects that support evolution through three phases of technology advancement: development, commercialization, and transition to widespread deployment. The FY 2015-2016 Funding Plan also details how ARB is addressing the specific requirements of SB 1204, including the requirement to establish performance criteria for disbursing incentive funds, which are reflected in this Solicitation (Section XV – Evaluation, Scoring and Preliminary Selection).

ARB's April 2015 *Sustainable Freight: Pathways to Zero and Near Zero Emissions* discussion draft document<sup>6</sup> details a long-term vision for transitioning the freight sector to near-zero and zero-emission, and lists strategies for overcoming barriers to commercialization. The truck and bus commercial pilot projects funded under this Solicitation will support the Sustainable Freight document vision to overcome the technical and economic challenges with zero-emission technology advancement.

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<sup>4</sup> The Cap-and-Trade Auction Proceeds Investment Plan is available at <http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/investmentplan.htm>.

<sup>5</sup> The identified disadvantaged community census tracts are available at <http://www.calepa.ca.gov/EnvJustice/GHGInvest/>.

<sup>6</sup> ARB, 2015a. *Sustainable Freight: Pathways to Zero and Near-Zero Emission*, Discussion Draft, April 2015. [http://www.arb.ca.gov/gmp/sfti/Sustainable\\_Freight\\_Draft\\_4-3-2015.pdf](http://www.arb.ca.gov/gmp/sfti/Sustainable_Freight_Draft_4-3-2015.pdf)

Finally, ARB is currently updating the Advanced Clean Transit regulation,<sup>7</sup> which will accelerate the adoption of zero-emission buses in public transit systems. This rulemaking, scheduled for Board consideration in the second half of 2016, is part of a comprehensive effort designed to help the state achieve its air quality, climate and public health goals by transitioning all mobile sources to zero- and near zero-emission technologies. Transit bus pilot projects funded under this Solicitation will support updates to the Advanced Clean Transit regulations.

### **III. NEED FOR EMISSION REDUCTIONS FROM THIS CATEGORY**

Medium- and heavy-duty on-road trucks and buses are a significant source of GHG, diesel particulate matter 2.5 microns or less (PM<sub>2.5</sub>), and oxides of nitrogen (NOx) emissions that lead to ozone and secondary PM. Statewide, they are responsible for 35 percent of the NOx emissions, 26 percent of the PM<sub>2.5</sub> emissions, and 5 percent of GHG emissions. Short haul/regional and over-the-road trucks and buses account for 70 percent of the NOx emissions, 88 percent of the PM<sub>2.5</sub>, and 65 percent of the GHG emissions from the heavy-duty sector.<sup>8</sup> These emissions correlate to increased health risks and mortality rates, as well as contribute to the challenge of meeting federal clean air standards and California climate goals. Disadvantaged communities are disproportionately affected by multiple types of pollution and have vulnerable populations. Heavy-duty on-road vehicles play a major role in freight transport, both for regional distribution and in long-haul applications. Transit buses and school buses also play an important role in passenger transport and in reducing congestion and vehicle miles traveled.

Pilot projects are needed to advance zero-emission technologies toward higher volume commercialization by creating demand and encouraging economy-of-scale per-vehicle cost reductions, as well as broadening consumer acceptance through use of a variety of these technologies in high visibility applications. Pilot projects also help identify where advancements are needed to transfer zero-emission technologies to long-haul heavy-duty applications. As such, the continued deployment of advanced technologies in this sector is necessary to reach California's long-term GHG emission reduction goals, protect public health, and reach attainment with increasingly stringent federal air quality standards. Projects selected under this Solicitation to deploy increasing numbers of advanced technology trucks and buses should be able to provide a significant reduction in GHG emissions and improve air quality for many areas within the State once fully integrated into the marketplace.

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<sup>7</sup> The Advanced Clean Transit regulation will consist of updates and amendments to the current Fleet Rule for Transit Agencies, and will include changing the name of the regulation to Advanced Clean Transit.

<sup>8</sup> The distribution of NOx, PM<sub>2.5</sub> and GHG emissions statewide as well as among different truck classifications was presented at the September 2, 2014 Technology and Fuels Assessment Workshop. <http://www.arb.ca.gov/msprog/tech/presentation.htm>.

#### IV. CURRENT TECHNOLOGY

There are several zero- and near zero-emission vehicles commercially available in the transit bus, school bus, and delivery truck sectors that will meet the objectives of this Solicitation. These vehicles can be purchased, although they typically have higher upfront costs compared to their conventional counterparts and most require unique fueling infrastructure. This Solicitation is seeking applications for pilot projects that can lead to increased production of these commercially available technologies while benefitting disadvantaged communities throughout the state. The following are examples of current technologies suitable for zero-emission truck and bus pilot projects that could involve deploying significant numbers of vehicles that share refueling infrastructure, mechanics, spare parts, and marketing and outreach opportunities. Additional information on the current status of technology development can be found in ARB's *Draft Heavy-Duty Technology and Fuels Assessment: Overview*.<sup>9</sup>

Urban transit bus fleets have successfully demonstrated zero-emission technologies, confirming the viability of both battery and fuel cell electric buses in public transit and related applications like shuttle buses to the point that such technologies are in commercial revenue service today. However, costs are still high and fueling infrastructure challenges still exist due to the early stage of commercialization. For fuel cell electric buses, the refueling model is identical to conventional refueling in terms of frequency and duration, plus both the fueling protocol and nozzle are standardized. As such, reductions in hydrogen fueling infrastructure costs will be realized once the procedures for siting, building, and commissioning hydrogen stations become consistent and predictable, and with increased station utilization. For battery electric transit buses, manufacturers are balancing battery size (which translates to travel distance between charge events) against number of charge events and charging duration and frequency. Bus manufacturers are employing different charging approaches to (attempt to) meet the various needs of the transit operators. For example, shuttle buses and transit buses with larger batteries can charge over-night with some using the same charging equipment approved for light-duty vehicles.<sup>10</sup> However, because battery packs tend to be the most costly component of a battery-powered transit bus, some manufacturers are demonstrating ways to combine smaller battery packs with more frequent in-route high-power charging. Examples of in-route high-power charging include automated over-head conductive charging stations and automated roadway-imbedded inductive chargers.

Battery electric school buses have been demonstrated in limited numbers in California and elsewhere and are commercially available either through original equipment manufacturers (OEM) or companies that convert existing school buses to battery electric. Because school buses are typically used only twice a day, school bus fleets are well suited for battery technology because of the predictable charging requirements. School bus battery packs can be custom sized for particular routes with sufficient

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<sup>9</sup> ARB, 2015b. *Draft Technology and Fuels Assessment: Overview*, April 2015. <http://www.arb.ca.gov/msprog/tech/report.htm>.

<sup>10</sup> Society of Automotive Engineers (SAE) J1772.

opportunity for recharging overnight and during the day using commercially available charging equipment standardized for light-duty vehicles. Like light-duty battery-electric vehicles, school buses can be programmed for managed charging where they preferentially charge when electricity rates are lowest. Finally, school buses could participate in vehicle-grid integration (VGI), which enables bus-grid communication and electricity flow *to* and *from* the bus batteries. While this type of charging technology is currently being demonstrated, school districts could benefit if they are able to schedule charging bus batteries when grid energy is less expensive, and then sell electricity back to the utility at a higher price during times of peak demand.

Battery electric and plug-in hybrid delivery trucks are commercially available from several manufacturers. The hub concept lends well to a fleet or fleets of delivery vehicles servicing distribution centers and warehouses and using common fueling infrastructure, maintenance facilities and mechanics, and other shared resources. This delivery/freight hub concept would lead to reductions in costs associated with maintenance, repair, and refueling and would provide valuable lessons regarding the costs and benefits of widespread adoption of zero-emission technologies in the trucking sector.

Example pilot projects such as those described above, will help reduce vehicle and infrastructure technology costs, provide immediate health and air quality benefits to disadvantaged communities, and help overcome barriers to widespread zero-emission vehicle commercialization needed to achieve the state's long-term goals for reducing criteria, PM, and GHG emissions.

Finally, while the above examples focus primarily on zero-emission technologies like battery electric and fuel cell electric medium- and heavy-duty vehicles, this Solicitation is also open to new near zero-emission medium- and heavy-duty vehicles that offer significant zero-emission miles by employing on-board range extending internal combustion engines or other technologies (see Section IX - Eligible Projects and Eligible Vehicles for further details).

## **V. AVAILABLE FUNDING**

Funding for the Zero-Emission Truck and Bus Pilot Commercial Deployment Projects was approved by the Board through the FY 2014-2015 and FY 2015-2016 Funding Plans for AQIP and Low Carbon Transportation GGRF Investments.<sup>11,12</sup> In approving the FY 2015-16 Funding Plan in June 2015, the Board approved staff's recommendation to combine zero-emission truck and bus pilot project allocations from the two fiscal years' Funding Plans into one Solicitation. However, funding in the FY 2015-16 Funding Plan cannot be made available until the California Legislature

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<sup>11</sup> ARB, 2014a. *Final Approved Fiscal Year 2014-15 Funding Plan for the Air Quality Improvement Program and Low Carbon Transportation Greenhouse Gas Reduction Fund Investments*. Approved June 26, 2014. <http://www.arb.ca.gov/msprog/aqip/fundplan/fundplan.htm>.

<sup>12</sup> ARB, 2015c. *Fiscal Year 2015-16 Funding Plan for Low Carbon Transportation Investments and the Air Quality Improvement Program*. Approved June 25, 2015. <http://www.arb.ca.gov/aqip>.

appropriates funding. Accordingly, the current ARB funding available through this Solicitation is up to \$23,658,000. When additional funds become available and valid applications remain unfunded, those projects may be funded at ARB's sole discretion without reissuing a Solicitation provided the additional funds are appropriated before June 30, 2016. The total amount of funding available from the FY 2014-15 funds includes a \$1 million reduction for data analysis on awarded projects.

This Solicitation captures the types of technologies and pilot projects eligible for funding under both funding plans. However, the requirements tied to these pilot project funds in the FY 2015-2016 Funding Plan are slightly different than those in the FY 2014-2015 Funding Plan. As illustrated below in Table 1, the FY 2014-2015 Funding Plan requires that all zero-emission truck and bus pilot project funding go toward projects that benefit disadvantaged communities without stipulating specific funding amounts for truck versus bus projects. The FY 2015-2016 Funding Plan, on the other hand, specifies individual funding amounts for truck projects and bus projects, and requires that at least half of the bus funding go toward projects *located within* disadvantaged communities and half of the truck funding go toward projects that *benefit* disadvantaged communities,<sup>13</sup> thus allotting limited funding for projects that need not benefit disadvantaged communities.

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<sup>13</sup> ARB, 2015d. Proposed *Cap-and-Trade Auction Proceeds Funding Guidelines for Agencies that Administer California Climate Investments*. September 4, 2015. These Funding Guidelines, which were approved by the Board on September 24, 2015, contain criteria for evaluating whether projects satisfy disadvantaged community requirements and are available at: <http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/fundingguidelines>.

**Table 1: Zero-Emission Truck & Bus Project Minimum Funding Requirements**

Fiscal Year	Allocation (up to)	Disadvantaged Community Minimum Allocation		No Disadvantaged Community Requirement
		Located within <sup>14</sup>	Provides benefits to <sup>15</sup>	
<b>FY 2014-2015 Funding Plan</b>	<b>\$25,000,000*</b>			
Zero-emission truck and bus pilot projects	\$23,658,000		\$23,658,000	N/A
<b>FY 2015-2016 Funding Plan</b>	<b>\$65,000,000** (pending appropriation)***</b>			
Zero-emission bus pilot commercial deployments	\$40,000,000	At least \$22,500,000		No more than \$17,500,000
Zero-emission truck pilot commercial deployments	\$20,000,000		At least \$10,000,000	No more than \$10,000,000

\* \$1,000,000 of the allocated funding has been set aside to fund the third party data analysis contract, which will be awarded through a competitive Solicitation process, another \$342,000 was removed for State Operation of Low Carbon Transportation.

\*\* \$5,000,000 of the FY 2015-2016 funding plan allocation for Truck and Bus Pilot Commercial Deployments was set aside for funding school buses in rural school districts to be administered separately.

\*\*\* All dollar amounts for FY 2015-16 are from the Board-approved FY 2015-16 Funding Plan.

Until additional funds are appropriated, up to \$23,658,000 will be awarded to the highest scoring projects that provide benefits to disadvantaged communities. As additional funds become available, ARB will take into account the disadvantaged community requirements detailed in Table 1 when awarding funding. Finally, to ensure equitable distribution of funding among potential Grantees as well as diversity in technology type and geographic distribution, the following caps will be applied when selecting projects:

1. No more than 50 percent of the funding allocated from FY 2014-15 funds will be awarded to a single grantee;
2. No more than 30 percent of the total funding for projects under this Solicitation will be awarded to a single grantee;
3. No more than 60 percent of the funding at any time will be allocated toward projects located within a single air basin<sup>16</sup>; and
4. No more than 60 percent of the funding at any time will be allocated toward projects involving a single technology type (either battery or battery dominant hybrid, or fuel cell or fuel cell dominant hybrid).

<sup>14</sup> See Appendix A, Attachment 6, Table 2.A-1, Step 1 for evaluation criteria for projects *located in a Disadvantaged Community*.

<sup>15</sup> See Appendix A, Attachment 6, Table 2.A-1, Step 2 for evaluation criteria for projects that *provide benefits to a Disadvantaged Community*.

<sup>16</sup> California is divided into 15 regional air basins, each one having generally similar meteorological and geographic conditions throughout. For a map of California air basins, go to:

<http://www.arb.ca.gov/ei/maps/statemap/abmap.htm>.

This Solicitation may fund such activities as truck and bus purchases and deployments, infrastructure, refueling, operation and maintenance. It may not be used to fund basic research or demonstrations of pre-commercial technologies. Funding may be provided for:

- Vehicles, fueling infrastructure, and vehicle service and repair facility upgrades<sup>17</sup> necessary to support project vehicles.
- Operation and maintenance of vehicles and fueling infrastructure, workforce training, and data collection (data analysis will be accomplished through an independent third-party entity contracted by ARB).
- Administrative costs (administrative costs shall not exceed 5 percent of the project amount funded by ARB).

All applications will be scored based on the same scoring criteria detailed in Section XV - Evaluation, Scoring, and Preliminary Selection, and available funding will be offered to the highest scoring applicants provided that (1) the minimum funding requirements for disadvantaged communities summarized in Table 1 are satisfied, and (2) funding limits on Grantees, air basins, and technology types (discussed above) have not been exceeded. Specific details on how projects will be selected are included in Section XVI - Grantee Selection. In the event additional funding is provided from Low Carbon Transportation GGRF Investments for the Zero-Emission Truck and Bus Pilot and Commercial Deployment Projects, these funds may be administered under this Solicitation at ARB's sole discretion.

## **VI. REQUIRED MATCHING FUNDS**

The Grantee is required to match a minimum of 25 percent of the total project cost. Match funding must be provided in the following manner:

- A minimum of 10 percent of the total project cost must be in the form of cash committed by the Grantee and/or technology provider (exclusive of providing in-kind contributions). Cash includes labor and money spent on the project during the term of the Grant Agreement. For public projects (e.g. public transit and public school bus projects), cash match may also include funding from federal, local and state agencies other than ARB.
- 15 percent or more of the total project cost may be through some combination of in-kind contributions such as labor, equipment, materials, equipment transportation, private financing, and federal or non-AB 118 and non-GGRF sourced state funds. While other publicly funded projects may work in tandem or as part of a project funded under this program, none of those funds or anything funded by those projects may be included in fulfilling any of the 25 percent match requirement; however, assets from publically funded projects can be counted

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<sup>17</sup> Only minor facility upgrades and improvements that do not involve construction are eligible for funding.

toward the match if the contract requirements are complete at the time of the application. For example, electric charging or fueling infrastructure funded under another State project can support a zero-emission truck or bus pilot project but may only be applied to meet part of the Grantee match requirements if the contract requirements with the State for that fueling infrastructure have been satisfied. Other than fueling infrastructure, project facilities or real property will not be considered as part of a proposed in-kind match whether owned or leased by the Grantee, technology provider or vehicle end user.

Applicants are also encouraged to leverage resources that cannot be included in the match for the benefit of implementing the project. However, applicants should not include the value of those leveraged resources as part of the total project cost. Allowing project vehicles to utilize existing fueling or charging infrastructure that is currently operating under another government contract is one example of a leveraged resource. Similarly, the California Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP)<sup>18</sup> offers vouchers, which may be used to purchase additional vehicles beyond the project scope. **However, HVIP vouchers may not be used to meet any part of the match requirements, and vehicles purchased with the help of HVIP vouchers may not be included as part of the pilot project's vehicle fleet.**

If the grant application includes a third party (i.e., a party other than the Grantee) providing any part of the required match, the Grantee designated in the application must include a letter from each third party stating that it is committed to providing a specific dollar value of cost sharing and the source of such funds. A Grantee and its partners must demonstrate technical and fiscal resources sufficient to meet their cost share commitment and complete the proposed project. Transit applicants using U.S. Department of Transportation, Federal Transit Administration (FTA) funds as match must provide documentation demonstrating the transit agency's expectation of receiving FTA funding. This may include but is not necessarily limited to:

- Documentation of funding received from FTA in previous funding cycles; and
- A Transportation Improvement Plan and applicable supporting document(s) developed for and approved by Designated Recipient's<sup>19</sup> board of directors. The plan must indicate how the Designated Recipient will spend their anticipated FTA funds (specified as match in the Grant application), including the number and type of buses to be purchased.

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<sup>18</sup> Information on HVIP, voucher amounts, and a list of HVIP-eligible vehicles is available at <http://www.californiahvip.org/>.

<sup>19</sup> "Designated recipient" is the entity selected by the State's chief executive officer, responsible local officials, and publicly owned operators of public transportation to "receive and apportion" the amounts made available by Congress and FTA to a particular transportation management area or a State or regional authority if the authority is responsible under the laws of the State for a capital project and for financing and directly providing public transportation. [http://www.fta.dot.gov/12305\\_6995.html](http://www.fta.dot.gov/12305_6995.html).

## VII. ELIGIBLE GRANTEES

This competitive Solicitation is open to local air districts, transit agencies, school districts, other California-based public entities, or California-based non-profit organizations<sup>20</sup> acting as the Grantee (applicant) for the application. The Grantee must demonstrate its expertise implementing advanced technology transportation projects and providing administration and oversight for the project. Private sector parties, i.e., truck or bus manufacturers, powertrain manufacturers, integrators or conversion companies, and end-users interested in piloting a technology, must partner with an eligible Grantee (i.e., an air district, transit agency, school district, other California-based public entity, or California-based non-profit organization) to submit an application. Only project applications from eligible Grantees will be scored.

Eligible applicants must meet all applicable requirements of State law and regulations, the AQIP Guidelines, the FY 2014-15 Funding Plan, the FY 2015-2016 Funding Plan, and the specific requirements in this Solicitation. To be considered for the grant award, applicants must fully complete the AQIP Application (Appendix A) and demonstrate that they meet the Application Requirements (see Section XII of this Solicitation). ARB may request clarification regarding application responses during the application review process.

An eligible Grantee can request pilot project funds without an identified technology provider, with a commitment to solicit for a project once funds are secured from ARB via this competitive Solicitation process. However, projects that already have all the needed participants, such as technology provider(s), identified end user of the proposed vehicles, and eligible Grantee, will score higher than those that do not have team members identified in advance (see Criteria 2 in Section XV - Evaluation, Scoring, and Preliminary Selection).

The Grantee for the application will be required to submit a resolution of its governing board prior to execution of the Grant Agreement that commits the agency/organization to:

- Comply with the requirements of the pilot deployment project;
- Accept the Grant funds from ARB; and
- Allocate any funding that the Grantee has committed to be part of a project application.

It is recommended that the resolution allow for grant amendments without governing board approval, if possible. If the Grantee for the application does not have a governing board, then a binding written commitment from an official of the organization who has authority to enter into contractual obligations and commits to the above requirements will be required to fulfill the above commitments.

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<sup>20</sup> California-based non-profit organizations must at all times be registered with and in active/good standing with the California Secretary of State.

If the Grantee for the application contributes a match to the project, the governing board resolution (or other written commitment for applicants without a governing board) shall authorize a legally authorized official to supply sufficient funding to meet the stated match commitment. Signed Grant Agreements and approved governing board resolutions and other written commitments need to be in place on or before the deadline listed in the Solicitation Timeline in Section XIII - Application Instructions. Sub-agreements between the technology provider(s) and the Grantee need to be in place before work can begin.

## **VIII. RESPONSIBILITIES OF GRANTEE AND TECHNOLOGY PROVIDERS**

The Grantee will be responsible for administration of the pilot project, and major responsibilities include but are not limited to:

- Submission of project proposal (application) to ARB;
- Administration of the project;
- Oversight of technology provider(s);
- Maintaining oversight of the project budget and the amount of funds that are being used for the project's match requirement;
- Reporting to ARB on project status and Grant performance;
- Submission of periodic reports and Grant disbursement requests to ARB;
- Ensuring purchase, installation, and maintenance of data logging or other data collection equipment as deemed necessary by ARB;
- Submission of data as requested by ARB and/or ARB's selected third-party data analysis provider; and
- Coordinating periodic project status update meetings.

The technology providers' major responsibilities in the pilot project will include:

- Teaming with the Grantee applicant to develop the project application;
- Providing the technical expertise in performance of vehicles and fueling/charging, repair, and maintenance infrastructure;
- Timely achievement of stated project milestones;
- Installation and maintenance of data collection equipment and data collection as required by ARB; and
- On-time reporting to the Grantee on project status and Grant performance.

Progress reports from the technology provider(s) shall be submitted to the Grantee at a minimum of three-month intervals. The Grantee is responsible for forwarding all progress reports, unaltered, to ARB within seven business days of receipt from the technology provider(s) (see Reporting and Monitoring Requirements in Section XVII - Implementation Process). Additionally, every Grant disbursement request shall be accompanied by a progress report that documents the time interval and the completion of specific project milestones, including any specific deliverables as defined for that milestone (see Project Funding Procedure in Section XVII - Implementation Process).

In order to ensure consistent data analysis across all heavy-duty pilot and demonstration projects, data analysis will be accomplished through an independent third party selected through a competitive process. To avoid conflict of interest, a grantee selected for a zero-emission truck or bus pilot project must be separate and unique from the third-party data analysis provider. However, other project team participants may be a party to the data analysis contract provided they are not the pilot project Grantee and are not involved in data gathering or analysis for the project.

Data collection will be required throughout the pilot deployment project, and the data gathered will be required to be submitted to ARB and/or the third-party data analysis provider periodically and as part of project milestones. The Grantee must agree to purchase and install data logging or other equipment as deemed necessary by ARB in order to facilitate data collection. For each project vehicle, at least one *representative baseline vehicle*, and each type of project vehicle, the Grantee must include \$2,000 in their submitted budget for the purchase of data collection equipment. A *representative baseline vehicle* is an existing fleet vehicle that has the same or similar duty and drive cycles as the project funded vehicles. If vehicles within a fleet of project-funded vehicles have different duty and drive cycles (e.g., five vehicles with longer routes and fewer stops, and five with shorter routes and more frequent stops), a representative baseline vehicle is required for each subgroup. The type of data to be collected includes, but is not limited to, fuel/electricity consumption, fueling/charging times, state of charge information for battery and fuel cell electric vehicles, odometer readings, maintenance information, relevant telematics and GPS data, operating costs, hours of operation, idle times, temperatures, and user experience.

Emissions testing will be required for a representative number of baseline vehicles only if the project vehicles include internal combustion technologies, and will be paid for by the data contractor. Under these circumstances, the Grantee will be required to work with the third-party data contractor to select and provide access to representative baseline vehicles or equipment with comparable duty cycles. Final determination of data to be collected and emission testing protocols will be made by ARB, at its sole discretion.

A final report must be submitted to ARB from the Grantee and technology provider(s) at the conclusion of the project. The project will not be complete until the final report has been accepted by ARB. The final report will include, but will not be limited to, a summary of the progress reports, any deliverables that were committed to in the project Grant agreement, the results from any emission testing performed, and any other information required by ARB. The Draft final report is due to ARB no later than April 1, 2019 (see Sample Grant Agreement, Appendix B). ARB retains the right to withhold up to 10 percent of the total award amount until delivery of the final report.

Additional reporting requirements are detailed in the Reporting and Monitoring Requirements section of this Solicitation.

## IX. ELIGIBLE PROJECTS AND ELIGIBLE VEHICLES

The projects covered by this Solicitation require the deployment of zero- or near zero-emission transit buses, school buses, and delivery trucks that achieve significant reductions in GHG and co-pollutant emissions. As discussed earlier in Section V - Available Funding, the FY 2014-15 and FY 2015-16 Funding Plans have allocated specific amounts for truck and/or bus pilot projects that are located within disadvantaged communities, provide benefits to disadvantaged communities,<sup>21</sup> as well as funding for projects that need not benefit a disadvantaged community. To determine whether a project qualifies as being located within or benefiting a disadvantaged community, applicants must use the criteria in ARB's Interim SB 535 Guidance.<sup>22</sup> All project applications will be evaluated and scored based on the same criteria detailed in Section XV - Evaluation, Scoring, and Preliminary Selection. While satisfying the disadvantaged community criteria (Appendix A, Attachment 6) is not a condition of all funding available in this Solicitation, applications that satisfy one or more disadvantaged community criteria will receive a higher score in this category than projects that do not.

For the purposes of this solicitation, a *zero-emission* means a vehicle that produces no tailpipe greenhouse gas, criteria pollutant or toxic contaminant emissions during the vehicle's entire duty cycle, whether stationary or operating. *Near zero-emission* means a vehicle capable of utilizing zero-emission technologies that produce no tailpipe greenhouse gas, criteria pollutant or toxic contaminant emissions when operating within a disadvantaged community census tract or ZIP code.

To be eligible for funding under this Solicitation, vehicle technologies included in the project application must have already been demonstrated and must be *commercially available* (defined below) including technologies that are in the early stages of commercial deployment. The project's goal is to place significant numbers of commercially available zero-emission trucks and buses in well-defined areas (or hubs) where vehicles can be serviced with common fueling, maintenance, and repair facilities, while also providing opportunities for on-the-job workforce training and public education and outreach. The ultimate goal of this project is to increase the use of a variety of zero-emission vehicle technologies within the transit, school bus, and freight/delivery sectors, while identifying the challenges that need to be overcome to expand the use of zero emission technologies to other heavy-duty sectors. In addition to zero- and near

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<sup>21</sup> For interactive maps of disadvantaged community census tracts (for the Located Within criteria) and disadvantaged community ZIP codes (for the Provides Benefits To criteria), go to: <http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/535investments.htm>.

<sup>22</sup> ARB's *Cap-and-Trade Auction Proceeds Funding Guidelines for Agencies that Administer California Climate Investments* contains the criteria for determining whether a project is located within a disadvantaged community or provides benefits to a disadvantaged community, and also lists examples of common needs of disadvantaged communities that project proponents are encouraged to address. This Guidance is available at [http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/funding\\_guidelines\\_public\\_proposed\\_draft\\_09-04-2015.pdf](http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/funding_guidelines_public_proposed_draft_09-04-2015.pdf). Appendix A, Attachment 6 of this Solicitation contains the criteria for evaluating Low Carbon Transportation projects to determine if they satisfy one or more Disadvantaged Community criterion. Appendix A, Attachment 6 also lists examples of common economic needs of disadvantaged communities that will also be include in the project scoring criteria.

zero-emission vehicles, fueling and charging infrastructure needed to facilitate successful vehicle deployments may also be included.

Only *eligible vehicles* that are *commercially available* will be considered for pilot project funding under this Solicitation. Eligible buses include the following types of medium- and heavy-duty vehicles (i.e., 8,501 pounds gross vehicle weight rating (GVWR) and greater). Eligible trucks include the following types of heavy-duty vehicles (i.e., 14,001 GVWR and greater).

- Battery electric zero-emission urban transit buses, shuttle buses, school buses, and delivery or freight trucks.
- Fuel cell electric zero-emission urban transit buses, shuttle buses, school buses, and delivery or freight trucks.
- Near zero-emission electric urban transit buses, shuttle buses, school buses, and delivery or freight trucks with the capability to operate in zero-emission only mode.<sup>23</sup>
- Conversion of any type of urban transit bus, shuttle bus, school bus, and delivery or freight truck to zero-emission technology (conversions are discussed in Section X - Scope of Work).

To be eligible for transit pilot deployment project funding under this Solicitation, transit buses must follow FTA testing requirements.<sup>24</sup> Before a particular bus model can qualify for FTA funding, it must complete FTA's New Model Bus Testing (also referred to as "Altoona Testing"). For a new technology bus that is not yet considered a production model, FTA may provide funding for the first five buses of that model; Altoona Testing is then required before FTA will fund the sixth bus.<sup>25</sup> To encourage commercialization of advanced technology transit buses, costs incurred during the term of the project by the bus manufacturer for Altoona Testing (excluding manufacturer's labor and technical support expenses), and the cost of the tested bus are all eligible for funding under this solicitation.

For the purposes of this Solicitation, *commercially available* means all of the following:

1. The eligible vehicle meets applicable ARB certification requirements as follows:
  - a. For new 2009 through 2017 model zero-emission vehicles or near zero-emission off-vehicle charge capable (i.e., plug-in hybrid) vehicles weighing 8,501 to 14,000 pounds GVWR, the California Exhaust Emission Standards and Test Procedures for 2009 through 2017 Model Zero-

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<sup>23</sup> Operation in "zero-emission only mode" means that the vehicle is operating with zero-emissions while moving, starting, stopping, and idling, and that at no point during zero-emission mode may an on-board internal combustion engine turn on.

<sup>24</sup> Federal Transit Agency website for transit bus testing: [http://www.fta.dot.gov/12351\\_4584.html](http://www.fta.dot.gov/12351_4584.html).

<sup>25</sup> See FTA's Frequently Asked Questions on Bus Testing Requirements: [http://www.fta.dot.gov/13057\\_6087.html](http://www.fta.dot.gov/13057_6087.html).

Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes.<sup>26</sup>

- b. For new 2018 and later model vehicles or near zero-emission off-vehicle charge capable (i.e., plug-in hybrid) vehicles weighing 8,501 to 14,000 pounds GVWR, the California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes<sup>27</sup>
  - c. For new zero-emission vehicles weighing 14,001 pounds GVWR or greater, no ARB approval is required for legal sale; however, an approval letter from ARB confirming that the vehicle has been correctly identified as zero-emission is required for vehicles funded this Solicitation.<sup>28</sup>
  - d. For near-zero emission, off-vehicle charge capable weighing 14,001 pounds GVWR, the heavy duty engines need to be certified for hybrid use, including on-board diagnostics (OBD) approval.<sup>29</sup>
  - e. For conversions of any type of vehicle to zero-emission, the aftermarket conversion kits must receive an exemption executive order (EO) from ARB.<sup>30</sup>
2. The eligible vehicle will be purchased or leased and vehicle ownership will be retained by the pilot project's end user for the duration of the pilot project.
  3. The eligible vehicle is under warranty with the manufacturer, conversion company, or integrator for the duration of the pilot project.

The following project types will be considered under this Solicitation:

- **Bus Pilot Deployment:** Eligible urban transit buses, shuttle buses (including airport, parking and hotel), and road trolleys (i.e., trolleys that do not rely on rail or catenary for charging), and associated fueling/charging infrastructure and upgrades to service, maintenance, and repair facility to accommodate project buses.
- **School Bus Pilot Deployment:** Eligible school buses, associated fueling/charging infrastructure, and upgrades to service, maintenance, and repair facility operated within a single school district.

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<sup>26</sup> ARB, 2014b. "California Exhaust Emission Standards and Test Procedures for 2009 through 2017 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes." May 30, 2014. [http://www.arb.ca.gov/msprog/levprog/cleandoc/2009-2017%20my%20hevtps\\_clean%20complete\\_7-14.pdf](http://www.arb.ca.gov/msprog/levprog/cleandoc/2009-2017%20my%20hevtps_clean%20complete_7-14.pdf).

<sup>27</sup> ARB, 2014c. "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes." May 30, 2014. [http://www.arb.ca.gov/msprog/levprog/cleandoc/2018+%20my%20hevtps\\_clean%20complete\\_7-14.pdf](http://www.arb.ca.gov/msprog/levprog/cleandoc/2018+%20my%20hevtps_clean%20complete_7-14.pdf)

<sup>28</sup> For information about ARB approvals, go to:

<http://www.arb.ca.gov/msprog/cihd/approvals/approvals.php>.

<sup>29</sup> <http://www.arb.ca.gov/msprog/onroadhd/hdhev/hdhevtesting/hdhevtesting.htm>.

<sup>30</sup> For more information, go to: <http://www.arb.ca.gov/msprog/cihd/approvals/approvals.php>.

- School Bus Sharing Pilot Deployment: Eligible school buses shared among more than one school district, provided associated fueling/charging infrastructure, service, maintenance, and repair needs can be met with the bus sharing program.
- Freight/Delivery Truck Pilot Deployment: Eligible delivery/freight trucks including fuel cell and battery electric truck fleet or fleets served by common fueling/charging infrastructure, mechanics, reservoir of critical vehicle components, and other shared resources.

For the purpose of this Solicitation, fueling infrastructure can include hydrogen fueling stations and electric vehicle charging solutions necessary to support the proposed vehicles and the pilot project. Hydrogen fueling stations may include but are not limited to stations that produce hydrogen on-site and stations that receive hydrogen delivered via truck or pipeline. Charging solutions for battery-powered trucks and buses may include but are not limited to electric vehicle supply equipment (EVSE) at hub-based or designated locations, charging stations located in-route, and battery swapping stations.

This competitive Solicitation is expected to expand the use of zero-emission bus and truck technologies in public and private fleets. Projects that can utilize full zero-emission technology may score higher than those technologies that only partially eliminate emissions. Projects selected under this Solicitation should be able to provide a significant improvement in air quality for many affected areas within the state when fully integrated into the marketplace.

## **X. SCOPE OF WORK**

This section provides information on the project's scope of work. Any requirements identified below are minimum requirements and are not comprehensive. In addition to the information below, the scope of work includes reporting and monitoring requirements as detailed in the Reporting and Monitoring Requirements section of this Solicitation.

Data collection will be a required element of all funded projects. Data analysis, which is an important part of each project, will be accomplished by an independent third party that ARB selects, and all types of data to be collected will be determined at ARB's sole discretion, in consultation with the project's technology provider(s) and project Grantee. All project team participants must work cooperatively with the third party data analysis provider and supply data as requested in a timely manner. The sharing of data collected from vehicles, infrastructure, and other relevant equipment with ARB's third party data analysis team is required.

Emission testing will only be required on baseline and project vehicles when a pilot project involves internal combustion technologies, such as plug-in hybrids. Under these circumstances, reproducible emission testing must be performed and paid for by the data analysis contractor to verify the emission benefits from the use of technologies funded under this Solicitation. If NO<sub>x</sub> emissions are being measured, the result will be

shown as NO<sub>x</sub> and nitric oxide (NO) plus nitrogen dioxide (NO<sub>2</sub>). The emission testing procedure used to verify emission reductions should be cited in the project's narrative (see Appendix A, Attachment 3). The final emission testing procedure will be subject to ARB approval.

A "well-to-wheel" analysis to quantify GHG emission reductions is required for all vehicles funded under this Solicitation. The applicant is required to estimate the emission reductions associated with their project (see Appendix D for the methodology). All calculations must be shown in their entirety and included in the application (Appendix A, Attachment 4). Incomplete illustration of the mathematical processes used will result in no points being allocated for scoring criteria 5 and reduced points allocated under scoring criteria 10 in Section XV - Evaluation, Scoring, and Preliminary Selection, as well as possible disqualification.

### **A. Vehicle Requirements**

All vehicles in the proposed project must be compliant with all applicable state requirements, including, but not limited to applicable ARB engine or vehicle approval or certification (as discussed in Section IX - Eligible Projects and Eligible Vehicles), Department of Motor Vehicles licensing, California Highway Patrol safety certification for school buses, and others. New vehicles must also have a manufacturer's certification that the vehicle model complies with all applicable federal safety standards for new motor vehicles and new motor vehicle equipment issued by the National Highway Traffic Safety Administration.<sup>31</sup>

Projects containing a conversion component will be required to meet certain criteria. For the purposes of this Solicitation, a conversion means removing any type of existing propulsion system and replacing it with a zero-emission propulsion system, such as battery or hydrogen fuel cell powered electric drive train. Technology providers wishing to convert vehicles previously certified by ARB to electric drive must use conversion kits that have received an exemption EO from ARB as discussed in Section IX - Eligible Projects and Eligible Vehicles. Finally, conversions with fuel-fired heaters are not considered eligible for this Solicitation.

OEM-built near-zero emission vehicles will also be allowed under this Solicitation; however, zero-emission miles will be required. To ensure benefits to disadvantaged communities, near-zero emission project vehicles must be equipped with geofencing technology that will geographically sense where the truck is at any time and notify the driver when they have entered a disadvantaged community census tract or ZIP code, thus allowing the driver to switch vehicle operation to zero emission only mode. Near zero-emission vehicles equipped with the capability to automatically operate in zero-emission only mode when in disadvantaged community census tracts or ZIP codes without requiring inputs from the driver will score higher.

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<sup>31</sup> The Federal Motor Vehicle Safety Standards are found in Title 49 of the Code of Federal Regulations (CFR) Part 571.

## B. Fueling Infrastructure

As stated in the previous section, fueling infrastructure necessary for operating vehicles that are the subject of this Solicitation is an eligible cost. Proposed fueling infrastructure should be capable of safely refueling all of the pilot project vehicles such that the vehicles can be used for the intended purposes as described in the project narrative. For example, the fueling infrastructure for a transit bus pilot must be able to provide sufficient fuel such that all of the transit buses relying on that fueling infrastructure are able to refuel as needed to complete their intended routes. Projects that propose only infrastructure without accompanying vehicles will not be scored.

ARB will only process applications for fueling infrastructure projects where the project is proposed to be sited where similar infrastructure already exists (e.g., installing electric vehicle supply equipment where electrical infrastructure already exists, or installing a hydrogen refueling station at an existing fueling station or commercial or industrial facility). Proposed projects that can take advantage of existing infrastructure should show a cost-effective advantage to other proposed projects that will require stand-alone infrastructure to be installed as part of a project; however, such project applications must demonstrate through letters of commitment from the owner/operator of the existing infrastructure that the existing infrastructure is appropriately equipped to reliably meet the needs of the project vehicles. Emission reductions that are associated with any infrastructure funded by this Solicitation are not allowed to be included as part of the emission reduction totals that will be considered during proposal scoring. In other words, emission reductions will only be assigned to the advanced technology vehicles funded under this Solicitation.

Proposed infrastructure costs must be substantiated by qualified entities with experience in the installation, permitting, and commissioning of the proposed infrastructure type. Any fueling infrastructure proposal should list all authorities having jurisdiction over the siting, permitting, construction and operation of the proposed infrastructure, and indicate all the required steps including, but not limited to, siting, permitting, safety certifications, and other necessary certifications. Installation, operation and maintenance of any proposed fueling infrastructure must be addressed in the project application budget and scope of work. ARB will devote to infrastructure the amount of funds proposed in the application for infrastructure and no more. **NOTE: If the actual infrastructure costs exceed the proposed amount of funds allocated in the application, the difference must be covered by the applicant or a third-party.**

Projects that propose a dual use (public and private) charging/refueling station are encouraged. Charging/refueling stations that allow both the project vehicles and other advanced technology vehicles that are not being funded, such as zero-emission commercial medium duty trucks and buses or private light duty electric or fuel cell vehicles, may be scored higher.

## **1. Hydrogen Refueling Stations**

Proposals containing a hydrogen refueling station installation must adhere to the minimum technical requirements and renewable hydrogen requirements specified in Appendix C and the California Environmental Quality Act (CEQA) and permitting requirements described in Appendix E. Additionally, the project must comply with all applicable federal, state, and local laws and requirements for acceptable installation and usage of hydrogen refueling stations. Each hydrogen refueling station must have a plan in place for continued refueling of project vehicles in the event that the existing station goes off line. Public or private access to refueling at a proposed hydrogen station is not required. However, hydrogen station proposals that are designed to allow non-project entities to refuel during or following the completion of the pilot project may score higher than those that do not allow refueling to non-project entities. As noted above, ARB may only process applications for infrastructure projects (including hydrogen refueling stations) where the project is proposed to be sited where similar infrastructure already exists (e.g., installing a hydrogen refueling station at an existing fueling station, commercial facility or industrial facility).

## **2. Charging Solutions for Battery Powered Vehicles**

Proposals containing the installation of electric vehicle charging infrastructure (including EVSE or other charging solutions) must adhere to the CEQA and permitting requirements described in Appendix E, and the project must comply with all applicable federal, state, and local laws and requirements for acceptable installation and usage of the infrastructure. Any proprietary protocol may additionally be superimposed on the system provided the site owner is able to revert to the open standard protocol. The proposal must include a maintenance plan for continued reliable operation and unforeseen breakdowns of the charging infrastructure. Public or private party access to charging at proposed charging infrastructure is not required. However, projects that are designed to allow non-project entities to charge during or following the completion of the pilot project may be scored higher than those that do not allow charging to non-project entities. As noted above, ARB may only process applications for infrastructure projects (including EVSE and other charging solution installations) where the project is proposed to be sited where similar infrastructure already exists (e.g., installing electric vehicle supply equipment where electrical infrastructure already exists).

## **XI. PROPRIETARY INFORMATION AND INTELLECTUAL PROPERTY**

ARB will not make any claims as to ownership of equipment funded by this grant. However, all information and data generated under the Grant Agreement is the property of ARB. Additionally, the technology provider(s) and Grantee(s) will make available, at ARB's request, all information and data generated as part of the project that is described in the work plan and scope of work, which will be included in the grant application (see Appendix A, Attachment 3). Additionally, the technology provider(s) and Grantee(s) will make available any information and data needed to satisfy the

requirements discussed in the Reporting and Monitoring Requirements section of this Solicitation.

Data gathered on actual emissions to the air, as part of this pilot project cannot be protected from disclosure. Any information determined to be a trade secret or otherwise exempt from disclosure under the California Public Records Act or other provisions of law must be labeled “confidential.” Review Appendix A, Attachment 7 for Procedures for Handling Confidential Information. If you wish to include confidential information, you must:

- Complete the Confidentiality Provision (Appendix A, Attachment 7) and attach it to your project proposal;
- Separate confidential pages from the other elements of the project proposal (do not include any confidential information in the main project proposal); and
- Clearly label every confidential page as “CONFIDENTIAL”.

Project proposals will be reviewed by ARB staff and may include reviewers outside of ARB associated with public universities in California and other State government agencies as needed. In the project proposal, at the point where the information would appear if it were not confidential, please indicate its existence under the separate cover. Please provide the name, address, and telephone number of the individual to be contacted if ARB receives a request for disclosure of the information claimed as confidential. ARB may share confidential information related to a project with multiple units and sections within ARB or other relevant State agencies.

## **XII. APPLICATION REQUIREMENTS**

Eligible Grantees must meet all applicable requirements of State law and regulations, AQIP Guidelines, Funding Plan, and this Solicitation. To be considered for the grant award, prospective Grantees must complete the application and demonstrate that they meet the required Solicitation elements. ARB may request clarification regarding application responses during the application review process. Only applications that contain all of the required elements as described below under Required Application Elements and in Appendix A of this Solicitation will be scored.

Please enclose with your project proposal any documents (or pertinent excerpts) that you cite in support of performance claims in your project. However, do not include materials that are not needed to supply the information requested in these instructions. ARB will not review patent documents, engineering drawings and specifications, or promotional materials. Include in your application package letters of support from project partners that describe the nature of their contribution to the project.

The application package must include one signed original, four copies, and one compact disc (CD) containing the application package, including, as a single electronic file, all the required documents in Microsoft Word or Portable Document Format (PDF). Applications that do not meet the above requirements may not be scored and may be

disqualified.

### **Required Application Elements**

ARB requires applications to be accurate, and applicants are strongly encouraged to ensure their applications are brief and clear. Applications will be initially screened for completeness; incomplete applications will not be scored. The application is included as Appendix A of this Solicitation, and includes the following required elements:

Appendix A: AQIP Application (Application must be signed and dated)

- Attachment 1: Applicant Qualifications
- Attachment 2: Project Executive Summary and Project Summary for Public Posting
- Attachment 3: Project Narrative and Work Plan
- Attachment 4: Emission Reduction and Cost-Effectiveness Calculations
- Attachment 5: Proposed Budget and Project Milestone and Disbursement Schedule
- Attachment 6: Disadvantaged Communities Evaluation Criteria
- Attachment 7: Procedures for Handling Confidential Information
- Attachment 8: Letters of Commitment
- Attachment 9: California Environmental Quality Act Worksheet (if applicable)
- Attachment 10: Conflict of Interest Declaration
- Attachment 11: STD. 204 Payee Data Record (**required even if applicant is a public entity**)

### **XIII. APPLICATION INSTRUCTIONS**

Appendix A contains the forms and information necessary for submittal of a complete application. ARB will select Grantees based upon the scoring criteria identified in this Solicitation.

If you need this document in an alternate format or language, please contact Leslie Goodbody at (916) 323-2961 or [leslie.goodbody@arb.ca.gov](mailto:leslie.goodbody@arb.ca.gov). TTY/TDD/Speech to Speech users may dial 711 for the California Relay Service.

One (1) signed original, four (4) copies, and one (1) CD of the application, including all of the required documents, must be received at the Air Resources Board headquarters at 1001 I Street, Sacramento, California 95814. The CD must contain the application and other required documents, all in a single Word or PDF file.

Applications submitted via U.S. Postal Service, United Parcel Service (UPS), Express Mail, Federal Express, or another delivery service provider must be dispatched with enough time so that they are received by ARB no later than **5:00 p.m. on January 29, 2016** (delivery service provider tracking number may be used to verify date of receipt). Applications received after 5:00 p.m. January 29, 2016, may be rejected and not scored.

Applications must be mailed to the following address:

Leslie Goodbody  
Air Resources Board  
Mobile Source Control Division  
P.O. Box 2815  
Sacramento, California 95812-2815

Applications submitted in person may be delivered to the following address:

Leslie Goodbody  
Air Resources Board  
Mobile Source Control Division  
1001 I Street  
Sacramento, California 95814

Once the application has been mailed or delivered in person, please send an email to Leslie Goodbody at [leslie.goodbody@arb.ca.gov](mailto:leslie.goodbody@arb.ca.gov) indicating that you have submitted an application. Sending this email secures one of the five points provided for Application Completeness and lets ARB staff know that your formal application is on the way. ARB will send a confirmation email to the applicant once the hard-copy of the application has been received.

**No applications may be submitted by fax or email.**

**Table 2: Solicitation Timeline<sup>(1)</sup>**

Key Actions	Dates	Time (Pacific)
Public Release of Solicitation	October 1, 2015	--
Applicant Question Deadline	October 19, 2015	5:00 pm
Applicant Teleconference	October 21, 2015	10:00 am
<b>Application Submittal Deadline</b>	<b>January 29, 2016</b>	<b>5:00 pm</b>
Preliminary Grantee Selection	February 25, 2016	5:00 pm
Final CEQA Documentation Submittal Deadline <sup>(2)</sup> Demonstrating that match funding has been secured	April 13, 2016	
Execute Grant Agreement and Return to ARB <sup>(3)</sup>	May 13, 2016	5:00 pm

(1) Timelines are subject to change at ARB's sole discretion. For projects that are preliminarily selected for funding from pending additional funds, the CEQA documentation, demonstration of match funding, and grant agreement execution deadlines will be adjusted once the additional funds have been appropriated.

(2) This step only applies for projects containing infrastructure proposals where an agency other than ARB is the lead CEQA agency for the project.

(3) Includes governing board resolution.

#### **XIV. APPLICANT TELECONFERENCE**

ARB will hold an Applicant Teleconference at which time staff will be available to answer questions potential applicants may have regarding eligibility, application completion, and other requirements. The Applicant Teleconference will take place on the following date and time:

Date: October 21, 2015

Time: 10:00 a.m. – 12:00 p.m. (Pacific Time)

Location: Sierra Hearing Room

CalEPA Headquarters

1001 I Street

Sacramento, CA 95814

Toll Free Call-in Phone Number: 888-324-9613

Toll Call-in for International Callers: 1-210-234-0069

Passcode: 9634172

The Applicant Teleconference will be open to all interested entities. The intent of the Applicant Teleconference is to provide potential project applicants with an opportunity to ask clarifying questions regarding the Solicitation package and project requirements. Written questions submitted prior to the Applicant Teleconference will be given priority. Questions may be emailed to Leslie Goodbody at [leslie.goodbody@arb.ca.gov](mailto:leslie.goodbody@arb.ca.gov). Questions may be submitted up to 5:00 p.m. (Pacific Time) two days prior to the Applicant Teleconference. The questions and answers from the Applicant Teleconference and any questions received via email will be posted on the ARB website by **5:00 p.m. (Pacific Time) on November 11, 2015**; this date may be extended at ARB's sole discretion. ARB will not answer questions regarding this Solicitation after the Applicant Teleconference. Any verbal communication with an ARB employee concerning this Solicitation is not binding on the State and shall in no way alter a specification, term, or condition of the Solicitation.

#### **XV. EVALUATION, SCORING, AND PRELIMINARY SELECTION**

This section describes the steps that ARB will employ when evaluating and scoring applications and when making preliminary project selections, including project scoring, preliminary project selection. Preliminarily selected projects that involve the installation of fueling infrastructure must abide by all CEQA requirements (see Appendix E) before a Grant Agreement can be fully executed as discussed in Section XVI - Grantee Selection. In addition, a preliminarily selected project application that includes pending match funding that has not yet been secured must show proof that the match funding is

secured before a Grant Agreement can be fully executed. For FTA match funding, this proof could include documentation of the federal appropriation associated with the transit agency’s request for federal funding in their Transportation Improvement Plan.

**A. Project Scoring**

All eligible project applications will be reviewed together and scored based on the same scoring criteria discussed herein. The maximum score is 100 points. Only eligible projects and eligible vehicles will be scored and considered for funding. Other elements are also required to be included in each application as indicated in this Solicitation (see Section XII - Application Requirements - Required Application Elements). Further information on determining benefits to disadvantaged communities can be found in Appendix A, Attachment 6.

**Table 3: Summary of Scoring Criteria for Pilot Deployment Projects**

	<b>Scoring Criteria</b>	<b>Points</b>
1	Applicant Qualifications	5
2	Project Team Capabilities and Degree of Industry Collaboration	10
3	Project Objectives and Work Plan	15
4	Budget, Match Funding, and Financial Capabilities	10
5	Potential Emission Reduction Benefits	10
6	Cost-Effectiveness	5
7	Benefits to Disadvantaged Communities	8
8	Level of Commercial Viability	7
9	Potential for Project Scalability, Expansion, and Technology Transfer	20
10	Application Completeness	5
11	Timeline for Project Completion	5
	<b>TOTAL</b>	<b>100</b>

Using the scoring scale in Table 4, the evaluation team will score each eligible application for each scoring criteria described within this Solicitation.

**Table 4: Scoring Scale for Scoring Eligible Applications**

Possible Points	Interpretation	Explanation for Percentage Points
0%	Not Responsive	Response does not include or fails to address the requirements being scored. The omission(s), flaw(s), or defect(s) are significant and unacceptable.
10-30%	Minimally Responsive	Response minimally addresses the requirements being scored. The omission(s), flaw(s), or defect(s) are significant and unacceptable.
40-60%	Inadequate	Response addresses the requirements being scored, but there are one or more omissions, flaws, or defects or the requirements are addressed in such a limited way that it results in a low degree of confidence in the proposed solution.
70%	Adequate	Response adequately addresses the requirements being scored. Any omission(s), flaw(s), or defect(s) are inconsequential and acceptable.
80%	Good	Response fully addresses the requirements being scored with a good degree of confidence in the Applicant's response or proposed solution. No identified omission(s), flaw(s), or defect(s). Any identified weaknesses are minimal, inconsequential, and acceptable.
90%	Excellent	Response fully addresses the requirements being scored with a high degree of confidence in the Applicant's response or proposed solution. Applicant offers one or more enhancing features, methods or approaches exceeding basic expectations.
100%	Exceptional	All requirements are addressed with the highest degree of confidence in the Applicant's response or proposed solution. The response exceeds the requirements in providing multiple enhancing features, a creative approach, or an exceptional solution.

The **PROJECT NARRATIVE** must separately address each of the scoring criteria listed below. See instructions for the project narrative in Appendix A, Attachment 3.

**1. Applicant Qualifications (Appendix A, Attachment 1) – Maximum 5 points**

- Describe the experience and expertise the proposed Grantee has in implementing large-scale air quality incentive projects or programs and working with vehicle manufacturers and integrators, technology providers, other key project stakeholders, and the end user of the vehicle technology (i.e., transit agency, school district, trucking or delivery company). Scoring will be based on

the applicant's ability to successfully act as Grantee according to their demonstrable staffing, infrastructure, funding, and other available resources.

## **2. Project Team Capabilities and Degree of Industry Collaboration – Maximum 10 points**

- Proposals that identify the end user of the vehicles and equipment to be used in the project, the technology provider(s), and the Grantee will score higher than those that do not have all the needed participants identified in advance.
- Describe the roles and the work to be performed by each of the project's key participants, including project administration, project planning, and day-to-day use, operation, and maintenance of the vehicles and, if applicable, fueling infrastructure.
- Describe the administrative and technical qualifications and capabilities of the project partners and key personnel as they relate to the proposed project. Describe the project team and their experience, including, but not limited to, commercial zero-emission vehicle offerings, advanced technology vehicle manufacturing, operation and maintenance of advanced technology vehicle fleets, zero-emission fueling infrastructure installation, operation and maintenance, workforce training, education and outreach, and the ability to administer similar air quality programs.
- Describe the project team's relationship and degree of collaboration with vehicle and charging/refueling infrastructure builders and technology provider(s) on the proposed project. Describe what business alliances and partnerships will be necessary to advance vehicle technology commercialization and increase vehicle deployments within similar business and industry sectors.
- Performance of the Grantee, technology provider(s), and third-party contractors with previous AQIP projects will also be considered.

## **3. Project Objectives and Work Plan – Maximum 15 points**

- Provide a concise statement of how the project meets ARB's goals under the Zero Emission Truck and Bus Pilot Commercial Deployment Project Solicitation, the FY 2014-15 Funding Plan, and the FY 2015-16 Funding Plan.
- In a logical sequence, describe the tasks necessary to prepare for and conduct the proposed pilot project. Tasks can be divided into project phases, as appropriate, and described in enough detail for reviewers to understand the scope of the work. Identify what entity (Grantee or industry partner) will perform each task.

- Provide quantitative milestones for each budget period of the project, and identify them with a title and planned completion date. The general duration for each task must be specified. Identify at which milestones disbursement requests will be made and at what amounts.
- Identify the entities that will be using the vehicles and equipment included in the project and how the Grantee will ensure data will be reported as required to ARB or the ARB-designated third party data analysis provider.
- Identify the number and type of vehicles to be deployed and the resources (e.g., equipment, repair and maintenance facilities, materials, spare parts, etc.) necessary to support the day-to-day operation of the proposed vehicles. Describe only those resources that are directly applicable to the proposed work. List important items that are already available for this project. If proposing an acquisition, describe comparable equipment, if any, already at your organization and explain why it cannot be used.
- For proposals that include near zero-emission vehicles, specify the routes and/or conditions where project vehicles will be operated in zero-emission-only mode including zero-emission-only operation within disadvantaged community ZIP codes, and describe the geofencing technology to be employed for ensuring and documenting that zero-emission-only operation has occurred according to the project description.
- Describe how the funded project vehicles will be used and the expected dispositions of the funded project vehicles and infrastructure after the end of the term of the grant agreement.
- Identify workforce training necessary to ensure successful execution and completion of the proposed pilot project, including, but not limited to, training for vehicle operation, refueling, vehicle maintenance and repair, and data collection.
- Identify the extent to which renewable sources of energy will be used to support the zero- or near zero-emission vehicles to be deployed. Projects employing a higher percentage of renewable energy will score higher than those employing a lower percentage or no renewable energy.
- Identify any fueling, charging, or other related infrastructure already in place that will be utilized during the proposed pilot deployment project and the agreements that are planned or already in place to verify that the existing infrastructure is appropriately equipped to reliably meet the needs of the project vehicles, and that the owner/operator will allow project vehicles to utilize the existing infrastructure.

- Specify if any mobile refueling will be included in the project and agreements that are planned or already in place to provide mobile refueling to funded vehicles and equipment.
- Identify any infrastructure, including charging and refueling infrastructure, that will need to be installed to allow proper use of the vehicles and equipment identified in the project. Provide a list of all authorities having jurisdiction over the siting, construction and operation of the proposed infrastructure, and a brief description of the required steps for completing the installation including, but not limited to, siting, permitting, safety certifications, and other necessary certifications. Identify the entities that will be doing the infrastructure installation and at what cost. Describe plans, if any, for future use of charging and refueling stations following the pilot project.
- For proposals that include installation of a hydrogen refueling station to be funded as part of the project, provide a description of how all of the components of the Hydrogen Refueling Station Requirements (Appendix C) will be met. The proposal must include overall station performance parameters including, but not limited to fuel quality, metering accuracy, fueling protocol, pressures, storage, compression, daily throughput, hourly peak throughput, and a plan to maintain and verify the same.
- For projects that include electric vehicle supply equipment (e.g., charging stations), identify the analysis that has been accomplished, if any, to identify and/or address grid impacts during peak electricity demand hours.
- For proposals that include fueling or charging infrastructure installation to be funded as part of the project, include information showing the infrastructure is designed and engineered to match the specific minimum fueling/charging needs of the proposed fleet. The proposal must detail station design specifications and fueling protocols that must be met to satisfy the refueling needs of project vehicles. Details must be provided explaining the existing similar infrastructure where the funded infrastructure is proposed to be sited (e.g., existing electrical infrastructure where proposed EVSE is to be sited, or existing fueling station or industrial facility where a proposed hydrogen refueling station is to be sited). In cases where the applicant would make the funded infrastructure available to non-project fleets, the proposal must include information showing how the applicant will plan for capacity adjustments to handle the additional demand.

Applicants will be evaluated based on the project's goals relative to this Solicitation, the completeness of their plan for implementing the project, and the ability to complete the work in a timely manner. The Project Narrative and Work Plan must address how the applicant will implement all of the tasks in the proposed scope of work.

#### **4. Budget, Match Funding, and Financial Capabilities – Maximum 10 points**

- Provide a clear and concise project budget that lists all expenditures and source of those funds in a logical sequence that leads to on-time completion of the project. See sample budget in Appendix A, Attachment 5. Administrative fees may not exceed 5 percent of the total amount awarded by ARB.
- Indicate the source of funding for each task, including the amount being requested from ARB for each task, the amount that is fulfilled with in-kind or cash match funding, and the timing of receipt of each match monetary and in-kind contribution.
- For applications proposing to locate vehicles and infrastructure in more than one air basin, provide additional detail in the project budget showing how project funding will be apportioned by air basin.
- Demonstrate that the Grantee, technology provider(s) and/or end user will be financially capable of providing the minimum 25 percent match requirement of the total project budget, including the 10 percent cash requirement exclusive of in-kind contributions. Higher match pledges will be scored higher. See Section VI - Required Matching Funds, for examples of cash and in-kind match funding.
- Describe each financial contribution to the project (match funding or other leveraged funding), in addition to describing other current and pending funding sources for the required cost share match. Identify if all or a portion of the match funding is dependent upon successful grant award under any other solicitation.
- Attach Letter(s) of Commitment from each third party (i.e., a party other than the organization submitting the application) stating that it is committed to providing a specific minimum dollar amount of cost sharing as part of the match funding requirement or as other leveraged funding. Letters must be signed by the person authorized to commit the expenditure of funds by the entity.
- For transit projects that include anticipated match funding from the FTA, attach documentation that best demonstrates the transit agency's expectation of receiving FTA funding, including, but not limited to, the amount of FTA funding received in previous funding cycles, and the Designated Recipient's board-adopted program for FTA appropriations indicating how they will spend their anticipated FTA formula funds.

#### **5. Potential Emission Reduction Benefits – Maximum 10 Points**

- Describe in Appendix A, Attachment 4 the estimated reductions of GHG, criteria pollutant, and toxic air contaminant (PM) emissions as determined using the

methodology in Appendix D. Combined weighted criteria pollutant and PM emission reductions are to be based on vehicle exhaust emissions (i.e., tank-to-wheel) and calculated in tons reduced per year. The GHG emission reductions are to be based on full fuel cycle emissions (i.e., well-to-wheel) and calculated in tons of CO<sub>2</sub> equivalent<sup>32</sup> reduced per year.

- Describe emissions testing that has already been done on the proposed technology(ies), if applicable.
- **Show all math used in calculations.** Cite all sources and explain all variables used in the calculations that are not included in Appendix D.

#### **6. Cost-Effectiveness – Maximum 5 points**

- Describe in Appendix A, Attachment 4 the estimated cost-effectiveness of the project in dollars per ton of combined criteria pollutant and weighted PM emissions reduced, and dollars per ton of GHG emissions (in CO<sub>2</sub> equivalent) reduced for the two scenarios below, using the methodology in Appendix D:
  - During the actual proposed project over a 2-year period; and
  - During a 10-year period of project vehicle operation, based on a 10 year vehicle useful life.

#### **7. Benefits to Disadvantaged Communities – Maximum 8 points**

- Describe the location of the hub(s) where the project vehicles will be domiciled, including the physical address with zip code.
- Provide a general description of the routes to be driven by the project vehicles, including, but not limited to, names of the cities they will travel in and the highway and freeway corridors they will use.
- For each project vehicle, estimate the average daily number and percent of miles that will be traveled within the boundaries of ZIP codes containing disadvantaged community census tracts as well as the percent of daily miles that will be traveled within the boundaries of disadvantaged community census tracts.<sup>33</sup>
- Transit bus and school bus projects: For each vehicle, specify the number and percent of daily stops that will occur within a disadvantaged community census tract or within a ½ mile of a disadvantaged community.

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<sup>32</sup> “CO<sub>2</sub> equivalent” means the number of metric tons of CO<sub>2</sub> emissions with the same global warming potential as one metric ton of another greenhouse gas.

<sup>33</sup> For interactive maps of disadvantaged community census tracts and ZIP codes containing disadvantaged community census tracts, go to:  
<http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/535investments.htm>.

- For projects including near-zero emission vehicles, describe how zero-emission only operation will be ensured while the project vehicles are operating in disadvantaged community ZIP codes.
- Describe how the proposed project addresses one or more common economic needs of disadvantaged communities, including but not limited to those listed in Appendix A, Attachment 6.
- Describe any proposed disadvantaged community outreach.

### **8. Level of Commercial Viability – Maximum 7 points**

- For each vehicle, provide documentation that demonstrates compliance with all applicable federal and state requirements for on-road operation. This may include but is not limited to applicable ARB certification or approval (as discussed in Section IX - Eligible Projects and Eligible Vehicles), vehicle license and registration, certificate of insurance, FTA testing requirements for transit buses, California Highway Patrol safety certification for school buses, and for new vehicles, manufacturer's certification that the vehicle model complies with all applicable federal safety standards for new motor vehicles and new motor vehicle equipment issued by the National Highway Traffic Safety Administration. If any of the above applicable requirements have not yet been met, provide details on the status of achieving compliance, including the specific requirement, current status, remaining steps, and estimated timeline for completion.
- Describe the warranty for each vehicle and vehicle component, including coverage, limits, and duration of coverage (either in miles or months). Projects with better warranties will score higher.
- Describe the safety measures and approvals from permitting agencies required to be in place to ensure safe operation and maintenance of project equipment: during vehicle operation, battery-charging, refueling, equipment maintenance, and other operational parameters. Identify any specific issues that first responders, such as firefighters, police, etc., should be concerned with if an emergency is encountered, either due to internal or external forces, with the piece of equipment funded under this project.
- For plug-in battery electric technologies, describe project team's participation in organizations convened to explore and develop charging standards for medium- and heavy-duty vehicle applications, such as the Bus and Truck Charging Group organized by the Electric Power Research Institute's Infrastructure Working Council.<sup>34</sup>

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<sup>34</sup> <http://www.epri.com/Pages/Infrastructure-Working-Council.aspx>.

- Describe the economic benefits that a California business or agency could expect if they operated zero- or near-zero emission vehicles or equipment that are part of this project.

### **9. Potential for Project Scalability, Expansion, and Technology Transfer – Maximum 20 points**

- End user or fleet owner:
  - Discuss your organization's intentions following a successful pilot deployment, including, but not limited to, plans to increase vehicle numbers or timeline to fully convert the fleet to the zero- or near zero-emission technology, and the actions necessary to carry out the plan.
- Manufacturer or technology provider:
  - Describe the potential for adoption of the piloted zero- or near zero-emission vehicle technology in similar fleets or applications.
  - Estimate reductions in capital, operation, and maintenance costs that could occur with both modest and significant vehicle production increases.
  - Discuss potential to expand or increase manufacturing capacity, as well as potential barriers to vehicle technology expansion.
  - Describe types of fleets or applications different from the proposed project that may be amenable to the piloted technology as the result of successful pilot project completion.
  - Discuss the potential for the project's vehicle technology to be adapted for use in regional and long haul heavy-duty trucking applications, considering payload capacity, duty cycles, vehicle range, and refueling needs.
  - Describe actions that will be taken to share and increase exposure to project vehicles, and encourage adoption of these vehicle technologies by similar or related industries. This may include vehicle badging, fleet or manufacturing facility tours, and participation in public and industry related forums, conferences, and events.

### **10. Application Completeness – Maximum 5 points**

- Applications that are clear, concise, and include all the requested information will be scored higher than those that are unclear or missing information. Do not make a declaration as to application completeness in your submittal.

- Provide a written affirmation in the project narrative that all parties participating in the pilot deployment have read the Sample Grant Agreement that is included in this Solicitation packet as Appendix B.

### **11. Timeline for Project Completion – Maximum 5 points**

- Provide a project schedule including the milestones as described in the Project Narrative and Work Plan section of Appendix A (Attachment 3). Both a tabular and graphic display (such as a Gantt chart) of the project schedule is preferred, but at a minimum, a tabular display is required. In addition clearly identifying milestones, information must include task duration, start and completion dates, and expected time to secure funding, materials and construction services. The milestones and timelines must also include all infrastructure installation that is to be funded as part of the project.
- Demonstrate that all work will be accomplished by April 1, 2019.

### **B. Preliminary Project Selection**

As discussed earlier in Section V, this Solicitation, the FY 2014-15 Funding Plan, and the FY 2015-16 Funding Plan place unique requirements on the funds allocated for zero-emission truck and bus pilot projects. This section describes the preliminary project selection process that will ensure that these unique requirements are met. All eligible truck and bus applications will be reviewed together and scored using the same criteria. The following process describes the approach that will be taken to ensure that the highest scoring eligible applications that satisfy both the disadvantaged community requirements detailed in Table 1, and the Grantee, technology, and geographic diversity caps discussed in Section V are preliminarily selected as Grantees. Due to uncertainty over when additional Low Carbon Transportation funds will be available for this project, staff will first preliminarily select the highest scoring projects for FY 2014-15 funding. Should additional funding become available between January 29, 2016 and June 30, 2016, at ARB's sole discretion staff will prioritize funding first to any FY 2014-15 project that did not receive full funding, then to the next highest scoring projects.

#### **1. Preliminary Selection of Projects for FY 2014-15 Funding**

All eligible applications will be sorted by score – highest to lowest. The highest scoring applications that provide benefits to disadvantaged communities will be preliminarily selected for FY 2014-15 funding provided none of the applicable funding caps presented in Section V - Available Funding, are exceeded. Applications that are not preliminarily selected for FY 2014-15 funding will be considered for funding from future appropriations consistent with the FY 2015-16 Funding Plan, provided the appropriations are made before June 30, 2016. In addition, any FY 2014-15 funds remaining after projects are preliminarily selected will be made available to projects selected for future funding once appropriated.

## 2. Selecting Projects for Future Funding

This section describes the process that will be used to select applications for possible future funding consistent with the FY 2015-16 Funding Plan. Until the California Legislature appropriates additional funding for Zero-Emission Truck and Bus Pilot Commercial Deployment Projects, no projects will be preliminarily selected for additional grant funding.

The FY 2015-16 Funding Plan places minimum requirements for funding truck and bus projects in disadvantaged communities (see Table 1). In addition, this solicitation places limits on how much of the total funding from both fiscal years can be awarded to one grantee, one air basin, or one technology type. Starting with the highest scoring application, projects will be selected for possible funding provided they contribute to satisfying the minimum funding requirements for disadvantaged communities without exceeding the total funding available, the grantee cap, the air basin cap, or the technology cap as illustrated in Table 5.

**Table 5: Minimum and Maximum Requirements for Project Funding**

<b>Category (Source)</b>	<b>Minimum Requirement*</b>	<b>Maximum Requirement*</b>
Bus funding (FY 2015-16 Funding Plan)	At least \$22.5 million to projects located in disadvantaged communities	No more that \$40 million to bus projects
Truck funding (FY 2015-16 Funding Plan)	At least \$10 million to projects that benefit disadvantaged communities	No more than \$20 million to truck projects
Truck and bus (remaining from FY 2014-15)	100% of remaining funds must go toward projects that benefit disadvantaged communities	None
Grantee cap (all funding)	None	No more than 30% of all funding may go to one Grantee
Air basin cap (all funding)	None	No more than 60% of all funding may go to projects in one air basin
Technology cap (all funding)	None	No more than 60% of all funding may go to projects in one technology type

\*The dollar amounts presented in this table are based on the Board-approved FY 2015-16 funding plan, and may change pending final appropriation of Low Carbon Transportation Funds.

In the event that one or more projects cannot be fully funded because their requested amount exceeds available remaining funds or one of the applicable caps listed in Table 5, ARB at its sole discretion may offer to fund those projects at a lesser amount at a scaled down scope. If the project applicant declines funding at a reduced project scope, ARB may offer funding to the next highest scoring eligible application, either fully

or at a scaled down scope, carry the remaining funds forward to the next fiscal year, shift the funds to another project category, or not award a grant(s).

The preliminary selection of a project does not in any way commit ARB to approving the grant. Each selected applicant will be required to sign a Grant Agreement with ARB to fulfill the duties of Grantee (See Appendix B). The Grant Agreement may not be executed unless and until any required CEQA review has been completed as discussed in XVI. Grantee Selection, and any promised match funding has been secured. Additionally, ARB, in its sole discretion, may cancel the proposed grant and make a selection to the next highest scoring project eligible for funding from the same source, and so on, until an agreement is reached, or exercise its right, in its sole discretion, throughout this process to not award a grant. ARB reserves the right, in its sole discretion, to cancel this Solicitation, re-solicit for a Grantee(s), revise the amount of funds available under this solicitation, amend this solicitation as needed, direct funding to another project in the Funding Plan, or reject any or all Applications received in response to this solicitation.

## **XVI. GRANTEE SELECTION**

Prior into executing a Grant Agreement, preliminarily selected project applicants must demonstrate that they have secured the match funding detailed in their application and have completed all required CEQA review. For a project requiring CEQA review where an agency other than ARB is serving as lead CEQA agency, the applicant must submit any required final CEQA documents by April 13, 2016 (prior to execution of the Grant Agreement). If an applicant fails to meet these requirements, ARB may deny the grant application. ARB will independently review any CEQA documentation provided by the applicant. ARB may modify any Grant Agreement based upon information produced from the CEQA environmental review process. If ARB in its sole discretion finds a project's CEQA documentation inadequate, ARB retains absolute sole discretion to either (1) modify the grant agreement as necessary to comply with CEQA, (2) select other feasible alternatives to avoid significant environmental impacts, or (3) deny the grant application. No legal obligations will exist unless and until the parties have executed and delivered a Grant Agreement, as informed by information produced from the CEQA environmental review process (to the extent applicable).

Selected project applicants will be required to sign a Grant Agreement to fulfill the administrative duties and technical duties associated with the project (see Appendix B, Sample Grant Agreement). Signed Grant Agreements and approved governing board resolutions (as discussed in Section VII) must be returned to ARB no later than the deadline described in Table 2: Solicitation Timeline in Section XIII – Application Instructions. If project Grant Agreements and approved governing board resolutions are not returned by the deadline, the ARB, in its sole discretion, may deny the grant application and can redirect funds to another submitted application to this Solicitation or to another project in the Funding Plan as needed. If, in ARB's sole discretion, no submitted project proposal meets the goals of this Solicitation, Funding Plan or AQIP Guidelines, no selection of a Grantee or technology provider will be required to be

made, and funding can be directed to another project identified in the Funding Plan as needed.

ARB, in its sole discretion, may make minor changes to proposed milestones, work plan, or disbursement schedules in consultation with the applicant, for inclusion in the Grant Agreement.

## **XVII. IMPLEMENTATION PROCESS**

### **A. Meetings**

Before work begins, a kick-off meeting will be held in Sacramento between the Grantee, the technology provider(s), the third party data analysis provider (if determined) and ARB project management staff (a separate kick-off meeting with the third party data analysis provider may be required). The purpose of this meeting will be to discuss the work plan, details of task performance, the project schedule, any changes to the project team, and any issues that may need resolution before ARB-funded work begins. Project update meetings to discuss the project's progress will be held as often as needed, but typically monthly. These meetings can occur via telephone conference calls upon approval of the ARB Project Liaison. Project update meetings are the responsibility of the Grantee to schedule and prepare a meeting agenda. Project update meetings need to contain, but are not limited to:

- Agenda for the meeting with conference call information;
- Project status update;
- Discussion of any difficulties encountered since the last project update meeting;
- Discussion on any deliverables that are nearing a due date;
- Notification of any pending disbursement requests; and
- Scheduling the next project update meeting.

Site visits by ARB staff may be required at ARB's sole discretion. A final meeting, or conference call pending ARB Project Liaison approval, will be held at the conclusion of the project to review the results and discuss the status of commercialization plans.

### **B. Project Funding Procedure**

In order to receive a disbursement, the Grantee must submit a grant disbursement request to ARB. The Grant Disbursement Request Form (see Appendix B, Exhibit C) must be signed by the party authorized and designated in the Grant Agreement and must include all information to substantiate the eligibility of costs to be reimbursed. GGRF grant funds will only be issued for vehicles, equipment, and services that are identified in the Project Narrative and Work Plan included in the application package, memorialized in the signed Grant Agreement, and that have already been rendered. A detailed invoice will be required. A Progress Report on the status of the project to date,

including the milestones for which the disbursement request is requesting reimbursement, is required with all disbursement requests. The advance of grant funds will not be allowed.

Disbursements will be made following the procedure described in the Reporting and Monitoring Requirements section of this Solicitation and the signed Grant Agreement.

### **C. Reporting and Monitoring Requirements**

The Grantee must submit numbered status reports accompanying grant disbursement requests to ARB at least every three months, but may submit on a monthly basis if necessary for more frequent invoicing with prior approval from ARB. These reports must be approved by ARB and must contain the following information, at a minimum, in either Microsoft Word or PDF, as a single electronic file:

- Project Status Report number, title of project, name of Grantee, date of submission, and project grant number;
- Summary of work completed since the last progress report, noting progress toward completion of tasks and milestones identified in the work plan;
- Statement of work expected to be completed by the next progress report;
- Notification of problems encountered and an assessment of their effects on the project's outcome;
- Data collected from vehicles and equipment since the last data reporting, as deemed necessary by ARB or its designated third party data analysis provider;
- Itemized invoice showing all costs for which reimbursement is being requested; and
- Discussion of the project's adherence to the project timeline.

A final report is required at the end of the project and must include:

- A description of the project's goals and objectives, methods, results of the pilot deployment, and future application of the technology; and
- An update on the commercialization prospects.

Final reports will be made public and posted on ARB's AQIP website. Requests for additional information may be required by ARB, at its sole discretion, to evaluate reports and to determine if a monthly, quarterly or final report is complete.

Any change in the project budget, re-definition of deliverables, or extension of the project schedule must be approved in advance and in writing by the ARB Project Liaison and may require an amendment. Once a grant is in place, minor changes to the work to be done or other project scope changes may be considered by ARB, in consultation with the Grantee or technology provider. ARB reserves the right to

terminate a grant if ARB determines, in its sole discretion, that the objectives cannot be reached or that the Grantee, technology provider(s), or their subcontractors cannot or will not perform the required work in a timely manner, as specified in Section 6 of the Grant Agreement.

The Grantee and technology provider(s) must allow ARB, the California Department of Finance, the California Bureau of State Audits, or any authorized designee access, during normal business hours, to conduct reviews and fiscal audits, or other evaluations. Access includes, but is not limited to, reviewing project records, site visits, interviews, and other evaluations as needed. Project evaluations or site visits may occur unannounced as ARB staff or its designee deem necessary.

## **XVIII. ADMINISTRATION**

### **A. Cost of Developing Application**

The Applicant is responsible for the cost of developing an Application, and this cost cannot be charged to the State. In addition, ARB is not liable for any costs incurred during environmental review or as a result of withdrawing a proposed award or canceling the solicitation.

### **B. Errors**

If an Applicant discovers any ambiguity, conflict, discrepancy, omission, or other error in the solicitation, the Applicant shall immediately notify the ARB of such error in writing and request modification or clarification of the document. The ARB shall not be responsible for failure to correct errors.

### **C. Immaterial Defect**

The ARB may waive any immaterial defect or deviation contained in an Applicant's application. The ARB's waiver shall in no way modify the Application or excuse the successful Applicant from full compliance.

### **D. Disposition of Applicant's Documents**

On the date that the Grant Agreement is signed, all applications and related material submitted in response to this solicitation become a part of the property of the State and public record.

### **E. Applicant's Admonishment**

This solicitation contains the instructions governing the requirements for funding projects submitted by interested Applicants, including the format in which the information is to be submitted, the material to be included, the requirements that must be met to be eligible for consideration, and Applicant responsibilities. Applicants must

take the responsibility to carefully read the entire solicitation, ask appropriate questions in a timely manner, submit the application with all required responses in a complete manner by the required date and time, and make sure that all procedures and requirements of the solicitation are followed and appropriately addressed.

#### **F. Agreement Requirements**

The content of this solicitation and each grant Recipient's application shall be incorporated by reference into the final agreement. See the sample Agreement terms and conditions included in Appendix B of this solicitation.

ARB reserves the right to negotiate with Applicants to modify the project scope, the level of funding, or both. If ARB is unable to successfully negotiate and execute a funding agreement with an Applicant, ARB, at its sole discretion, reserves the right to withdraw the pending award and fund the next highest ranked eligible project. This does not limit ARB's ability to withdraw a proposed award for other reasons, including for no cause.

#### **G. No Agreement Until Signed**

No agreement between ARB and the successful Applicant is in effect until the agreement is signed by the Recipient and signed by the authorized ARB representative. Costs are only subject to reimbursement by ARB after execution; no costs incurred prior to execution of the agreement are reimbursable using ARB funds.

#### **H. No Modifications to the General Provisions**

Because time is of the essence, if an Applicant at any time, including after Preliminary Grantee Selection, attempts to negotiate, or otherwise seeks modification of, the General Conditions (attached as Appendix B, Sample Grant Agreement Section 10), the ARB may reject an application or withdraw a proposed award. This does not alter or limit ARB's ability to withdraw a proposed award for other reasons, including failure of a third party agency to complete CEQA review, or for no cause.

#### **I. Payment of Prevailing Wages**

All applicants must read and pay particular attention to Appendix B, Sample Grant Agreement Section 10.17 entitled "Prevailing wages and labor compliance." Prevailing wage rates can be significantly higher than non-prevailing wage rates. Failure to pay legally-required prevailing wage rates can result in substantial damages and financial penalties, termination of the grant agreement, disruption of projects, and other complications.

#### **J. Solicitation Cancellation and Amendments**

The ARB reserves the right to do any of the following:

- Cancel this solicitation.
- Revise the amount of funds available under this solicitation.
- Amend this solicitation as needed.
- Reject any or all Applications received in response to this solicitation.