

**APPENDIX D-4**  
**Beneficiary Eligible Mitigation Action Certification**

## BENEFICIARY ELIGIBLE MITIGATION ACTION CERTIFICATION

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Beneficiary State of Texas

Lead Agency Authorized to Act on Behalf of the Beneficiary Texas Commission on Environmental Quality (TCEQ)  
*(Any authorized person with delegation of such authority to direct the Trustee delivered to the Trustee pursuant to a Delegation of Authority and Certificate of Incumbency)*

<b>Action Title:</b>	TxVEMP School Bus, Shuttle Bus, or Transit Bus Program
<b>Beneficiary's Project ID:</b>	
<b>Funding Request No.</b>	<i>(sequential)</i>
<b>Request Type:</b> (select one or more)	<input checked="" type="checkbox"/> Reimbursement <span style="margin-left: 150px;"><input type="checkbox"/> Advance</span> <input type="checkbox"/> Other (specify): _____
<b>Payment to be made to:</b> (select one or more)	<input type="checkbox"/> Beneficiary <input checked="" type="checkbox"/> Other (specify): <u>Vendors and Lead Agency</u>
<b>Funding Request &amp; Direction (Attachment A)</b>	<input type="checkbox"/> Attached to this Certification <input checked="" type="checkbox"/> To be Provided Separately

### SUMMARY

<b>Eligible Mitigation Action</b>	<input checked="" type="checkbox"/> Appendix D-2 item (specify): <u>Category 2- School Bus, Shuttle Bus, or Transit Bus</u> <input type="checkbox"/> Item 10 - DERA Option (5.2.12) (specify and attach DERA Proposal):
<b>Action Type</b>	
<b>Explanation of how funding request fits into Beneficiary's Mitigation Plan (5.2.1):</b>	
<small>The TCEQ requests \$58,652,778 in funds for the replacement or repower of older school buses, shuttle buses, and transit buses with cleaner models. Projects funded under this request will mitigate the potential for exposure of the public to pollutants. (Page 3, Beneficiary Mitigation Plan for Texas)</small>	
<b>Detailed Description of Mitigation Action Item Including Community and Air Quality Benefits (5.2.2):</b>	
These actions will mitigate nitrogen oxides (NOx) emissions that can impact the formation of ground-level ozone in local and regional areas. See attachment	
<b>Estimate of Anticipated NOx Reductions (5.2.3):</b>	
The TCEQ estimates that projects funded under this action will mitigate approximately 670 tons of NOx over a four-year period.	
<b>Identification of Governmental Entity Responsible for Reviewing and Auditing Expenditures of Eligible Mitigation Action Funds to Ensure Compliance with Applicable Law (5.2.7.1):</b>	
TCEQ	
<b>Describe how the Beneficiary will make documentation publicly available (5.2.7.2).</b>	
See Attachment	
<b>Describe any cost share requirement to be placed on each NOx source proposed to be mitigated (5.2.8).</b>	
See Attachment	
<b>Describe how the Beneficiary complied with subparagraph 4.2.8, related to notice to U.S. Government Agencies (5.2.9).</b>	
See Attachment	

If applicable, describe how the mitigation action will mitigate the impacts of NOx emissions on communities that have historically borne a disproportionate share of the adverse impacts of such emissions (5.2.10).  
See Attachment

**ATTACHMENTS**  
(CHECK BOX IF ATTACHED)

- Attachment A Funding Request and Direction.
- Attachment B Eligible Mitigation Action Management Plan Including Detailed Budget and Implementation and Expenditures Timeline (5.2.4).
- Attachment C Detailed Plan for Reporting on Eligible Mitigation Action Implementation (5.2.11).
- Attachment D Detailed cost estimates from selected or potential vendors for each proposed expenditure exceeding \$25,000 (5.2.6). [Attach only if project involves vendor expenditures exceeding \$25,000.]
- Attachment E DERA Option (5.2.12). [Attach only if using DERA option.]
- Attachment F Attachment specifying amount of requested funding to be debited against each beneficiary's allocation (5.2.13). [Attach only if this is a joint application involving multiple beneficiaries.]


**CERTIFICATIONS**

By submitting this application, the Lead Agency makes the following certifications:

1. This application is submitted on behalf of Beneficiary State of Texas, and the person executing this certification has authority to make this certification on behalf of the Lead Agency and Beneficiary, pursuant to the Certification for Beneficiary Status filed with the Court.
2. Beneficiary requests and directs that the Trustee make the payments described in this application and Attachment A to this Form.
3. This application contains all information and certifications required by Paragraph 5.2 of the Trust Agreement, and the Trustee may rely on this application, Attachment A, and related certifications in making disbursements of trust funds for the aforementioned Project ID.
4. Any vendors were or will be selected in accordance with a jurisdiction's public contracting law as applicable. (5.2.5)
5. Beneficiary will maintain and make publicly available all documentation submitted in

support of this funding request and all records supporting all expenditures of eligible mitigation action funds subject to applicable laws governing the publication of confidential business information and personally identifiable information. (5.2.7.2)

DATED: 4/17/19

  
\_\_\_\_\_  
Jon Niermann, Chairman

Texas Commission on Environmental Quality

\_\_\_\_\_  
LEAD AGENCY

for

State of Texas

\_\_\_\_\_  
BENEFICIARY

## Attachment

### Explanation of how funding request fits into Beneficiary's Mitigation Plan (5.2.1).

The TCEQ requests \$58,652,778 in funds for the replacement or repower of about 290 older school buses, shuttle buses, and transit buses with cleaner models. Projects funded under this request will mitigate the potential for exposure of the public to pollutants. (Page 3, Beneficiary Mitigation Plan for Texas)

### Detailed Description of Mitigation Action Item Including Community and Air Quality Benefits (5.2.2).

#### School Buses:

This category includes replacement or repower of model year 2009 and earlier Class 4 - 8 school buses.

These actions will mitigate nitrogen oxides (NO<sub>x</sub>) emissions while also reducing the potential for exposure of school children and the public, in general, to other pollutants from older diesel and gasoline engines. These vehicles operate on regular routes within the community resulting in the potential for exposure of children riding on the school bus and the public, in general, along these routes to pollutants emitted by older engines.

#### Transit and Shuttle Buses:

This category includes the replacement or repower of model year 2009 and earlier Class 4 - 8 transit and shuttle buses.

The operation of transit and shuttle bus fleets results in NO<sub>x</sub> emissions that can impact the formation of ground-level ozone in the local and regional area. In addition, these vehicles operate on regular daily routes within the community, resulting in increased potential for exposure of the public to pollutants emitted by older engines.

Replacing older diesel transit and shuttle fleets with newer, lower-emitting models, including those powered by alternative fuels, advanced diesel technologies, or electricity will directly address the program goals.

Eligible grantees must be in the listed Priority Area and Counties:

Priority Area	Counties
Austin Area:	Bastrop, Caldwell, Hays, Travis, Williamson
Beaumont-Port Arthur Area:	Hardin, Jefferson, Orange
Bell County:	Bell
Dallas-Fort Worth Area:	Collin, Dallas, Denton, Ellis, Hood, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise
El Paso County:	El Paso
Houston-Galveston-Brazoria Area:	Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, Waller
San Antonio Area:	Bexar, Comal, Guadalupe, Wilson

**Describe how the Beneficiary will make documentation publicly available (5.2.7.2).**

Documents will be made publicly available through the:

- Texas Volkswagen Environmental Mitigation Program (TxVEMP) website [www.TexasVWFund.org](http://www.TexasVWFund.org);
- TxVemp email subscription list; and
- Texas Electronic State Business Daily website.

In addition, the Texas Commission on Environmental Quality (TCEQ) will be hosting application workshops and webinars to assist grantees with the application process.

**Describe any cost share requirement to be placed on each NO<sub>x</sub> source proposed to be mitigated (5.2.8).**

Grants will be awarded on a first-come, first-served basis. An applicant may apply for and may be reimbursed for no more than the maximum percentage of cost limits or a predetermined table amount, whichever is less. See below for the maximum percentage of cost limits.

<b>Government-Owned</b>	
Replacement or Repower-Electric, Diesel, or Alternative Fuel	80%
<b>Non-Government-Owned</b>	
Replacement - Diesel or Alternative Fuel	25%
Repower - Diesel or Alternative Fuel	40%
Replacement or Repower - Electric	50%

Payments will be made on a reimbursement basis for eligible expenses incurred and paid by the grant recipient. A cost may not be considered incurred until the grant-funded goods and services have been received and accepted by the grant recipient. Grant recipients will be required to provide documentation to show that equipment or services have been received and the expenses have been incurred and paid by the grant recipient before reimbursement is provided by the TCEQ.

**Describe how the Beneficiary complied with subparagraph 4.2.8, related to notice to U.S. Government Agencies (5.2.9).**

In accordance with Section 4.2.8 of the State Trust Agreement, the TCEQ provided notice via email to the U.S. Department of Interior and U.S. Department of Agriculture of the opportunity to request Volkswagen mitigation action funds. This notice included a copy of the State Trust Agreement and informed them of the opportunity to comment on Texas' draft Beneficiary Mitigation Plan.

**If applicable, describe how the mitigation action will mitigate the impacts of NO<sub>x</sub> emissions on communities that have historically borne a disproportionate share of the adverse impacts of such emissions (5.2.10).**

The plan identifies seven Priority Areas that bear a disproportionate share of air pollution and particularly ozone within Texas:

- Dallas-Fort Worth Area

- Houston-Galveston-Brazoria Area
- San Antonio Area
- Austin Area
- El Paso County
- Bell County
- Beaumont-Port Arthur Area

These include the three areas of the state identified as nonattainment for the ground-level ozone National Ambient Quality Standards (NAAQS) and four other areas of the state that have monitored ground-level ozone concentrations close to the 2015 ground-level ozone NAAQS limit of 70 parts per billion.

Nonattainment Areas:

- Dallas-Fort Worth Area:
  - Collin, Dallas, Denton, Ellis, Hood, Johnson, Kaufman, Parker, Rockwall, Tarrant, and Wise
- Houston-Galveston-Brazoria Area:
  - Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller
- San Antonio Area:
  - Bexar

Attainment Areas:

- Austin Area:
  - Bastrop, Caldwell, Hays, Travis, and Williamson
- El Paso County
- Bell County
- Beaumont-Port Arthur Area:
  - Hardin, Jefferson, and Orange
- San Antonio Area:
  - Comal, Guadalupe, and Wilson

The Priority Areas contain many of the major metropolitan centers of the state as well as approximately 71% of the state population. Because of ground-level ozone formation in these areas, the TCEQ has determined that 81% of the total funding (approximately \$169.5 million) will be allocated exclusively to these areas to provide beneficial impacts on air quality.

The replacement or repower of school buses and shuttle and transit buses that operate within communities located in these areas will help address the goals of the program, including reducing the potential exposure of residents in within these communities to pollutants emitted from older vehicles. To be considered operating in an area, a majority (51% or more) of the annual mileage or hours of operation of the grant-funded vehicle or equipment must occur in the designated counties

## Attachment B to D-4: Eligible Mitigation Action Management Plan and Budget

### I. Project Management Plan: Project Schedule and Milestones

Milestones	Date <sup>1</sup>
Application period for the replacement or repower of school buses, transit buses, and shuttle buses	May 2019- May 2020
Conduct application workshops in Priority Areas of Texas	May 2019
Review and select project applications on a first-come, first served basis	May 2019- May 2020
Draft and execute contracts with entities selected for award	May 2019- May 2020
Process certification of disposition for equipment being replaced submitted by Awardee	May 2019- Aug. 2022
Process requests for reimbursement for the new equipment submitted by Awardee	May 2019- Aug. 2022
TCEQ certifies payment direction to Trustee monthly through the submission of an Attachment A.	May 2019-Aug. 2022
TCEQ will submit semi-annual reports to the trustee describing the process of implementing each eligible mitigation action included in the funding requests. These reports will include the status of each project and updates on payments to grantees and agency administrative costs.	Jan. 2020-Sept. 2022
Upon confirmation of payment, Awardee begins commitment to operate the new equipment in the Priority Areas at least 51% of the equipment's total annual miles of operation.	Sep. 2022- Aug. 2027

<sup>1</sup> Dates are approximate and may vary depending on the volume of applications received and awarded.

### II. Project Budget

Budget Category	Total Requested Budget
Project Expenditures	\$58,652,777
Administrative Expenditures	\$2,346,111
<b>Total</b>	<b>\$60,998,888</b>

### III. Project Cost Share

Awardee Type	Project Type	% of Awardee Cost Share <sup>1</sup>
Government	Replacements and Repowers	≥ 20%
Non-Government	Replacement-Electric	≥ 50%
Non-Government	Replacement-Diesel or Alt. Fuel	≥ 75%
Non-Government	Repower-Electric	≥ 50%
Non-Government	Repower-Diesel or Alt. Fuel	≥ 40%

<sup>1</sup> The percentage of the cost share to be paid by the awardee is applied to each repower or replacement activity included in a contract.



## Attachment C to D-4: Detailed Plan for Reporting on Eligible Mitigation Action Implementation

**1. Purpose:** The Texas Volkswagen Environmental Mitigation Plan (TxVEMP) program is preparing to open the first round of funding for projects to replace or repower School Buses, Shuttle Buses, and Transit Buses. Electric and hydrogen infrastructure may also be included in a project application for charging or refueling all-electric or hydrogen-fuel cell replacement and repower vehicles included in the project.

### 2. Program Criteria

- a. **Eligible Applicants:** Eligible applicants under the TxVEMP must operate school buses, shuttle buses, or transit buses of 14,001 pounds or greater at least 51% of the buses' annual mileage in one of the Priority Areas.
- b. **School buses, shuttle buses, and transit buses being replaced or repowered must:**
  - have a diesel engine with a model year of 2009 or older;
  - be considered capable of performing its primary function for the next five years;
  - been continuously inspected and registered in Texas for the two years immediately preceding the application signature date;
  - been used routinely by the applicant in its primary function in Texas for the two years immediately preceding the application signature date; and
  - been owned by the applicant at the time of application and for the two years immediately preceding the application signature date.
- c. **New school buses, shuttle buses, and transit buses must:**
  - be powered by electricity, diesel, or an alternative fuel (e.g., CNG, propane, hybrid);
  - have an engine model year not more than one year older than the year the application is submitted;
  - be certified by the EPA or CARB to a NO<sub>x</sub> emissions standard or family emissions limit (FEL) of 0.2 g/bhp-hr or lower; and
  - be of the same type, weight category, and body and axle configuration as the vehicle being replaced.
- d. **Activity life and usage commitment:** The applicant must commit to use the grant-funded vehicle at least 51% of the vehicle's annual miles of operation in one of the Priority Areas for the duration of the five-year activity life. Annual reports on the use of the grant-funded vehicles and equipment will not be required. However, the grant recipient must agree to provide information on the use of the vehicles and equipment upon request by the TCEQ.
- e. **Eligible grant amounts will be the lesser amount of:**
  - (i) the predetermined grant amount set by the TCEQ for that type of activity; or
  - (ii) the maximum percentage of eligible costs for the actual, eligible expenditures.

**3. Application Review and Selection:** Eligible projects will be processed for approval on a first-come, first-served basis. During the first three months of the application period, an entity may apply for and be approved for the replacement or repower of no more than 20 vehicles, either in one application or multiple applications.

### 4. Outreach

- a. **Program documents:** Program documents will be available to the public on the TxVEMP website once the funding round has officially opened. Documents have been drafted in accordance with accessibility standards and are available in a fillable PDF format.
- b. **Program notifications:** Notifications will be provided on the status of grant rounds through the TxVEMP email list serve and official agency press releases.
- c. **Application workshops:** TxVEMP staff will conduct application workshops in each of the Priority Areas. Webinars will also be provided for interested parties who are unable to attend a live workshop.
- d. **Funds availability status:** TxVEMP staff will regularly update a ticker provided on the TxVEMP website to update interested parties on the availability of funding under the first round.
- e. **Project summaries:** TxVEMP staff will provide a monthly project summary report on the TxVEMP website. The report will include project descriptions, awarded grant amounts, and project emissions reductions.

**Attachment D to D-4: Detailed cost estimates from selection or potential vendors for each proposed expenditure exceeding \$25,000 (5.2.6).**

Attached tables show the amount a grantee could be eligible to receive for each bus type.

## School Buses - Type A

### Government Replacement or Repower Projects with Optional Electric Infrastructure

		Model Year and Emission Standard of Old Vehicle <sup>3</sup>						
Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New NO <sub>x</sub> Emission Rate <sup>2</sup> (g/bhp-hr)	2004-2007		2007-2009		2007-2009 0.5 (g/bhp-hr)	
			2004-2007	2007-2009 2.0 (g/bhp-hr)	2007-2009 1.5 (g/bhp-hr)	2007-2009 1.0 (g/bhp-hr)		
CI	SI	0.2	\$88,000	\$50,243	\$41,570	\$29,907	\$18,318	\$6,654
	SI	0.02	\$88,000	\$52,074	\$43,751	\$32,724	\$21,627	\$10,600
	Zero	0	\$200,000	\$118,745	\$100,080	\$74,980	\$50,040	\$24,940
Infrastructure	N/A	N/A	\$100,000	\$59,373	\$50,040	\$37,490	\$25,020	\$12,470

## School Buses - Type B

		Model Year and Emission Standard of Old Vehicle <sup>3</sup>						
Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New Emission Rate <sup>2</sup> (g/bhp-hr)	2004-2007		2007-2009		2007-2009 0.5 (g/bhp-hr)	
			2004-2007	2007-2009 2.0 (g/bhp-hr)	2007-2009 1.5 (g/bhp-hr)	2007-2009 1.0 (g/bhp-hr)		
CI	SI	0.2	\$87,200	\$49,786	\$41,192	\$29,635	\$18,151	\$6,594
	SI	0.02	\$87,200	\$51,601	\$43,353	\$32,427	\$21,430	\$10,503

## School Buses - Type C

		Model Year and Emission Standard of Old Vehicle <sup>3</sup>						
Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New Emission Rate <sup>2</sup> (g/bhp-hr)	2004-2007		2007-2009		2007-2009 0.5 (g/bhp-hr)	
			2004-2007	2007-2009 2.0 (g/bhp-hr)	2007-2009 1.5 (g/bhp-hr)	2007-2009 1.0 (g/bhp-hr)		
CI	CI	0.2	\$73,800	\$42,136	\$34,862	\$25,081	\$15,362	\$5,580
	CI	0.02	\$73,800	\$43,671	\$36,691	\$27,444	\$18,137	\$8,889
	SI	0.2	\$106,400	\$60,748	\$50,262	\$36,160	\$22,148	\$8,046
	SI	0.02	\$106,400	\$62,963	\$52,899	\$39,567	\$26,148	\$12,816
	Zero	0	\$280,000	\$166,243	\$140,113	\$104,972	\$70,056	\$34,916
Infrastructure	N/A	N/A	\$140,000	\$83,122	\$70,057	\$52,486	\$35,028	\$17,458

## School Buses - Type D

Model Year and Emission Standard of Old Vehicle<sup>3</sup>

Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New Emission Rate <sup>2</sup> (g/bhp-hr)	<2002-2003	2004-2007	2007-2009 2.0 (g/bhp-hr)	2007-2009 1.5 (g/bhp-hr)	2007-2009 1.0 (g/bhp-hr)	2007-2009 0.5 (g/bhp-hr)
CI	CI	0.2	\$94,799	\$54,125	\$44,782	\$32,217	\$19,733	\$7,168
	CI	0.02	\$94,799	\$56,098	\$47,131	\$35,253	\$23,297	\$11,419
	SI	0.2	\$129,000	\$73,652	\$60,938	\$43,840	\$26,852	\$9,754
	SI	0.02	\$129,000	\$76,336	\$64,135	\$47,971	\$31,703	\$15,538
Zero	Zero	0	\$320,000	\$189,992	\$160,129	\$119,968	\$80,064	\$39,903
	N/A	N/A	\$160,000	\$94,996	\$80,065	\$59,984	\$40,032	\$19,952

<sup>1</sup>Ignition Types are as follows: CI = Compression-Ignition (e.g., Diesel), SI = Spark-Ignition (e.g., LPG, CNG), Zero = Zero emission vehicle (e.g., electric).

<sup>2</sup>The 0.2 g/bhp-hr NO<sub>x</sub> emission rate is the current EPA federal standard for new on-road heavy-duty vehicles. The 0.02 g/bhp-hr NO<sub>x</sub> emission rate is an optional California low-NO<sub>x</sub> standard.

<sup>3</sup>The 2010 EPA NO<sub>x</sub> emission rate standard for heavy-duty, compression ignition, on-road vehicles was phased-in from 2007 thru 2010. Engines produced during these years may have a range of NO<sub>x</sub> emission rates. If the EPA certified emission rate for an engine manufactured between 2007 and 2009 falls between one of the NO<sub>x</sub> emission rate values listed on the table, round up to the nearest listed value for the purposes of determining an eligible grant amount.

Note: In the instance a project is proposing to replace a School Bus - Type C with a School Bus - Type D, please utilize the School Bus - Type C table to determine the appropriate grant amount. This can be done by assuming the replacement will be a School Bus - Type C for a School Bus - Type C only for the purposes of determining an eligible grant amount.

## Shuttle Buses – Small (20-23 feet in length)

### *Government Replacement or Repower Projects with Optional Electric Infrastructure*

		Model Year and Emission Standard of Old Vehicle <sup>3</sup>						
Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New Emission Rate <sup>2</sup> (g/bhp-hr)	<2002-2003	2004-2007	2007-2009 2.0 (g/bhp-hr)	2007-2009 1.5 (g/bhp-hr)	2007-2009 1.0 (g/bhp-hr)	2007-2009 0.5 (g/bhp-hr)
CI	CI	0.2	\$59,200	\$33,800	\$27,937	\$20,124	\$12,311	\$4,498
	CI	0.02	\$59,200	\$35,019	\$29,438	\$22,000	\$14,562	\$7,123
	SI	0.2	\$69,067	\$39,433	\$32,593	\$23,478	\$14,363	\$5,248
	SI	0.02	\$69,067	\$40,855	\$34,344	\$25,666	\$16,988	\$8,311
	Zero	0	\$117,600	\$69,818	\$58,790	\$44,092	\$29,395	\$14,697
Infrastructure	N/A	N/A	\$58,800	\$34,909	\$29,395	\$22,046	\$14,698	\$7,349

## Shuttle Buses – Medium (24-28 feet in length)

### *Government Replacement or Repower Projects with Optional Electric Infrastructure*

		Model Year and Emission Standard of Old Vehicle <sup>3</sup>						
Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New Emission Rate <sup>2</sup> (g/bhp-hr)	<2002-2003	2004-2007	2007-2009 2.0 (g/bhp-hr)	2007-2009 1.5 (g/bhp-hr)	2007-2009 1.0 (g/bhp-hr)	2007-2009 0.5 (g/bhp-hr)
CI	SI	0.2	\$77,600	\$44,305	\$36,620	\$26,379	\$16,138	\$5,896
	SI	0.02	\$77,600	\$45,903	\$38,587	\$28,837	\$19,087	\$9,338
	Zero	0	\$128,800	\$76,467	\$64,389	\$48,292	\$32,195	\$16,097
Infrastructure	N/A	N/A	\$64,400	\$38,234	\$32,195	\$24,146	\$16,098	\$8,049

## Shuttle Buses – Large (29-40 feet in length)

### Government Replacement or Repower Projects with Optional Electric Infrastructure

		Model Year and Emission Standard of Old Vehicle <sup>3</sup>						
Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New Emission Rate <sup>2</sup> (g/bhp-hr)	<2002-2003	2004-2007	2007-2009 2.0 (g/bhp-hr)	2007-2009 1.5 (g/bhp-hr)	2007-2009 1.0 (g/bhp-hr)	2007-2009 0.5 (g/bhp-hr)
CI	CI	0.2	\$112,000	\$63,945	\$52,854	\$38,073	\$23,291	\$8,510
	CI	0.02	\$112,000	\$66,252	\$55,693	\$41,621	\$27,549	\$13,477
	SI	0.2	\$106,667	\$60,900	\$50,337	\$36,260	\$22,182	\$8,105
	SI	0.02	\$106,667	\$63,097	\$53,041	\$39,639	\$26,237	\$12,835
Infrastructure	Zero	0	\$164,000	\$97,365	\$81,986	\$61,490	\$40,993	\$20,497
	N/A	N/A	\$82,000	\$48,683	\$40,993	\$30,745	\$20,497	\$10,249

<sup>1</sup>Ignition Types are as follows: CI = Compression-Ignition (e.g., Diesel), SI = Spark-Ignition (e.g., LPG, CNG), Zero = Zero emission vehicle (e.g., electric).

<sup>2</sup>The 0.2 g/bhp-hr NO<sub>x</sub> emission rate is the current EPA federal standard for new on-road heavy-duty vehicles. The 0.02 g/bhp-hr NO<sub>x</sub> emission rate is an optional California low-NO<sub>x</sub> standard.

<sup>3</sup>The 2010 EPA NO<sub>x</sub> emission rate standard for heavy-duty, compression ignition, on-road vehicles was phased-in from 2007 thru 2010. Engines produced during these years may have a range of NO<sub>x</sub> emission rates. If the EPA certified emission rate for an engine manufactured between 2007 and 2009 falls between one of the NO<sub>x</sub> emission rate values listed on the table, round up to the nearest listed value for the purposes of determining an eligible grant amount.

## Transit/Urban Buses

### *Government Replacement or Repower Projects with Optional Electric Infrastructure*

		Model Year and Emission Standard of Old Vehicle <sup>3</sup>						
Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New Emission Rate <sup>2</sup> (g/bhp-hr)	<2002-2003	2004-2007	2007-2009 2.0 (g/bhp-hr)	2007-2009 1.5 (g/bhp-hr)	2007-2009 1.0 (g/bhp-hr)	2007-2009 0.5 (g/bhp-hr)
CI	CI	0.2	\$376,360	\$214,879	\$177,609	\$127,938	\$78,267	\$28,596
	CI	0.02	\$376,360	\$222,629	\$187,148	\$139,861	\$92,574	\$45,287
	SI	0.2	\$222,918	\$127,273	\$105,198	\$75,778	\$46,358	\$16,938
	SI	0.02	\$222,918	\$131,863	\$110,848	\$82,840	\$54,832	\$26,824
	Zero	0	\$504,781	\$299,684	\$252,348	\$189,261	\$126,174	\$63,087
Infrastructure	N/A	N/A	\$252,391	\$149,842	\$126,174	\$94,631	\$63,087	\$31,544

<sup>1</sup>Ignition Types are as follows: CI = Compression-Ignition (e.g., Diesel), SI = Spark-Ignition (e.g., LPG, CNG), Zero = Zero emission vehicle (e.g., electric).

<sup>2</sup>The 0.2 g/bhp-hr NO<sub>x</sub> emission rate is the current EPA federal standard for new on-road heavy-duty vehicles. The 0.02 g/bhp-hr NO<sub>x</sub> emission rate is an optional California low-NO<sub>x</sub> standard.

<sup>3</sup>The 2010 EPA NO<sub>x</sub> emission rate standard for heavy-duty, compression ignition, on-road vehicles was phased-in from 2007 thru 2010. Engines produced during these years may have a range of NO<sub>x</sub> emission rates. If the EPA certified emission rate for an engine manufactured between 2007 and 2009 falls between one of the NO<sub>x</sub> emission rate values listed on the table, round up to the nearest listed value for the purposes of determining an eligible grant amount.

## School Buses - Type A Non-Government Replacement Projects

Model Year and Emission Standard of Old Vehicle <sup>3</sup>									
Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New Emission Rate <sup>2</sup> (g/bhp-hr)	<2002-2003	2004-2007	2007-2009 2.0 (g/bhp-hr)	2007-2009 1.5 (g/bhp-hr)	2007-2009 1.0 (g/bhp-hr)	2007-2009 0.5 (g/bhp-hr)	
			CI	SI	0.2	\$27,500	\$15,701	\$12,991	\$9,346
			0.02	\$27,500	\$16,273	\$13,672	\$10,226	\$6,758	\$3,312

### Non-Government Repower Projects

Model Year and Emission Standard of Old Vehicle <sup>3</sup>									
Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New Emission Rate <sup>2</sup> (g/bhp-hr)	<2002-2003	2004-2007	2007-2009 2.0 (g/bhp-hr)	2007-2009 1.5 (g/bhp-hr)	2007-2009 1.0 (g/bhp-hr)	2007-2009 0.5 (g/bhp-hr)	
			CI	SI	0.2	\$44,000	\$25,122	\$20,785	\$14,953
			0.02	\$44,000	\$26,037	\$21,876	\$16,362	\$10,813	\$5,300

### Non-Government Electric Replacement or Repower Projects with Optional Electric Infrastructure

Model Year and Emission Standard of Old Vehicle <sup>3</sup>								
Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New Emission Rate <sup>2</sup> (g/bhp-hr)	<2002-2003	2004-2007	2007-2009 2.0 (g/bhp-hr)	2007-2009 1.5 (g/bhp-hr)	2007-2009 1.0 (g/bhp-hr)	2007-2009 0.5 (g/bhp-hr)
			CI	Zero	0	\$125,000	\$74,216	\$62,550
Infrastructure	N/A	N/A	\$62,500	\$37,108	\$31,275	\$23,431	\$15,638	\$7,794

<sup>1</sup>Ignition Types are as follows: CI = Compression-Ignition (e.g., Diesel), SI = Spark-Ignition (e.g., LPG, CNG), Zero = Zero emission vehicle (e.g., electric).

<sup>2</sup>The 0.2 g/bhp-hr NO<sub>x</sub> emission rate is the current EPA federal standard for new on-road heavy-duty vehicles. The 0.02 g/bhp-hr NO<sub>x</sub> emission rate is an optional California low-NO<sub>x</sub> standard.

<sup>3</sup>The 2010 EPA NO<sub>x</sub> emission rate standard for heavy-duty, compression ignition, on-road vehicles was phased-in from 2007 thru 2010. Engines produced during these years may have a range of NO<sub>x</sub> emission rates. If the EPA certified emission rate for an engine manufactured between 2007 and 2009 falls between one of the NO<sub>x</sub> emission rate values listed on the table, round up to the nearest listed value for the purposes of determining an eligible grant amount.



## School Buses - Type C

### Non-Government Replacement Projects

Model Year and Emission Standard of Old Vehicle <sup>3</sup>									
Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New Emission Rate <sup>2</sup> (g/bhp-hr)	<2002-2003	2004-2007	2007-2009 2.0 (g/bhp-hr)	2007-2009 1.5 (g/bhp-hr)	2007-2009 1.0 (g/bhp-hr)	2007-2009 0.5 (g/bhp-hr)	
			CI		\$13,167	\$10,894	\$7,838	\$4,801	\$1,744
			CI		\$23,063	\$13,647	\$11,466	\$8,576	\$5,668
CI	SI	0.2	\$33,250	\$18,984	\$15,707	\$11,300	\$6,921	\$2,514	
			SI		\$33,250	\$19,676	\$16,531	\$12,365	\$8,171

### Non-Government Repower Projects

Model Year and Emission Standard of Old Vehicle <sup>3</sup>										
Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New Emission Rate <sup>2</sup> (g/bhp-hr)	<2002-2003	2004-2007	2007-2009 2.0 (g/bhp-hr)	2007-2009 1.5 (g/bhp-hr)	2007-2009 1.0 (g/bhp-hr)	2007-2009 0.5 (g/bhp-hr)		
			CI		\$36,900	\$21,068	\$17,431	\$12,540	\$7,681	\$2,790
			CI		\$36,900	\$21,836	\$18,346	\$13,722	\$9,068	\$4,445
CI	SI	0.2	\$53,200	\$30,374	\$25,131	\$18,080	\$11,074	\$4,023		
			SI		\$53,200	\$31,481	\$26,449	\$19,783	\$13,074	\$6,408

### Non-Government Electric Replacement or Repower Projects with Optional Electric Infrastructure

Model Year and Emission Standard of Old Vehicle <sup>3</sup>										
Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New Emission Rate <sup>2</sup> (g/bhp-hr)	<2002-2003	2004-2007	2007-2009 2.0 (g/bhp-hr)	2007-2009 1.5 (g/bhp-hr)	2007-2009 1.0 (g/bhp-hr)	2007-2009 0.5 (g/bhp-hr)		
			CI		\$175,000	\$103,902	\$87,570	\$65,607	\$43,785	\$21,822
			Infrastructure	N/A	N/A	\$87,500	\$51,951	\$43,785	\$32,804	\$21,893

<sup>1</sup>Ignition Types are as follows: CI = Compression-Ignition (e.g., Diesel), SI = Spark-Ignition (e.g., LPG, CNG), Zero = Zero emission vehicle (e.g., electric).

<sup>2</sup>The 0.2 g/bhp-hr NO<sub>x</sub> emission rate is the current EPA federal standard for new on-road heavy-duty vehicles. The 0.02 g/bhp-hr NO<sub>x</sub> emission rate is an optional California low-NO<sub>x</sub> standard.

<sup>3</sup>The 2010 EPA NO<sub>x</sub> emission rate standard for heavy-duty, compression ignition, on-road vehicles was phased-in from 2007 thru 2010. Engines produced during these years may have a range of NO<sub>x</sub> emission rates. If the EPA certified emission rate for an engine manufactured between 2007

determining an eligible grant amount.

Note: In the instance a project is proposing to replace a School Bus - Type B with a compression-ignition School Bus - Type C, please utilize the School Bus - Type C table to determine the appropriate grant amount. This can be done by assuming the replacement will be a compression-ignition School Bus - Type C for a compression-ignition School Bus - Type C only for the purposes of determining an eligible grant amount. In the instance a project is proposing to replace a School Bus - Type C with a School Bus - Type D, please utilize the School Bus - Type C table to determine the appropriate grant amount. This can be done by assuming the replacement will be a School Bus - Type C for a School Bus - Type C only for the purposes of determining an eligible grant amount.

## School Buses - Class D

### Non-Government Replacement Projects

Model Year and Emission Standard of Old Vehicle <sup>3</sup>										
Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New Emission Rate <sup>2</sup> (g/bhp-hr)	<2002-2003	2004-2007	2007-2009 2.0 (g/bhp-hr)	2007-2009 1.5 (g/bhp-hr)	2007-2009 1.0 (g/bhp-hr)	2007-2009 0.5 (g/bhp-hr)		
CI	CI	0.2	\$29,625	\$16,914	\$13,994	\$10,068	\$6,167	\$2,240		
	CI	0.02	\$29,625	\$17,531	\$14,729	\$11,016	\$7,280	\$3,568		
	SI	0.2	\$40,313	\$23,016	\$19,043	\$13,700	\$8,391	\$3,048		
	SI	0.02	\$40,313	\$23,855	\$20,042	\$14,991	\$9,907	\$4,856		

### Non-Government Repower Projects

Model Year and Emission Standard of Old Vehicle <sup>3</sup>										
Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New Emission Rate <sup>2</sup> (g/bhp-hr)	<2002-2003	2004-2007	2007-2009 2.0 (g/bhp-hr)	2007-2009 1.5 (g/bhp-hr)	2007-2009 1.0 (g/bhp-hr)	2007-2009 0.5 (g/bhp-hr)		
CI	CI	0.2	\$47,400	\$27,062	\$22,391	\$16,109	\$9,867	\$3,584		
	CI	0.02	\$47,400	\$28,049	\$23,566	\$17,626	\$11,649	\$5,709		
	SI	0.2	\$64,500	\$36,826	\$30,469	\$21,920	\$13,426	\$4,877		
	SI	0.02	\$64,500	\$38,168	\$32,068	\$23,985	\$15,851	\$7,769		

### Non-Government Electric Replacement or Repower Projects with Optional Electric Infrastructure

Model Year and Emission Standard of Old Vehicle <sup>3</sup>										
Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New Emission Rate <sup>2</sup> (g/bhp-hr)	<2002-2003	2004-2007	2007-2009 2.0 (g/bhp-hr)	2007-2009 1.5 (g/bhp-hr)	2007-2009 1.0 (g/bhp-hr)	2007-2009 0.5 (g/bhp-hr)		
CI	Zero	0	\$200,000	\$118,745	\$100,080	\$74,980	\$50,040	\$24,940		
Infrastructure	N/A	N/A	\$100,000	\$59,373	\$50,040	\$37,490	\$25,020	\$12,470		

<sup>1</sup>Ignition Types are as follows: CI = Compression-Ignition (e.g., Diesel), SI = Spark-Ignition (e.g., LPG, CNG), Zero = Zero emission vehicle (e.g., electric).

<sup>2</sup>The 0.2 g/bhp-hr NO<sub>x</sub> emission rate is the current EPA federal standard for new on-road heavy-duty vehicles. The 0.02 g/bhp-hr NO<sub>x</sub> emission rate is an optional California low-NO<sub>x</sub> standard.

<sup>3</sup>The 2010 EPA NO<sub>x</sub> emission rate standard for heavy-duty, compression ignition, on-road vehicles was phased-in from 2007 thru 2010. Engines produced during these years may have a range of NO<sub>x</sub> emission rates. If the EPA certified emission rate for an engine manufactured between 2007

and 2009 falls between one of the NO<sub>x</sub> emission rate values listed on the table, round up to the nearest listed value for the purposes of determining an eligible grant amount.

Note: In the instance a project is proposing to replace a School Bus - Type C with a School Bus - Type D, please utilize the School Bus - Type C table to determine the appropriate grant amount. This can be done by assuming the replacement will be a School Bus - Type C for a School Bus - Type C only for the purposes of determining an eligible grant amount.

## Shuttle Buses – Small (20-23 feet in length)

### Non-Government Replacement Projects

Model Year and Emission Standard of Old Vehicle <sup>3</sup>										
Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New Emission Rate <sup>2</sup> (g/bhp-hr)	2002-2003		2004-2007		2007-2009		2007-2009	
							2.0 (g/bhp-hr)	1.5 (g/bhp-hr)	1.0 (g/bhp-hr)	0.5 (g/bhp-hr)
CI	CI	0.2	\$18,500	\$10,562	\$8,730	\$6,289	\$3,847	\$1,406		
	CI	0.02	\$18,500	\$10,943	\$9,199	\$6,875	\$4,550	\$2,226		
	SI	0.2	\$21,583	\$12,323	\$10,185	\$7,337	\$4,488	\$1,640		
	SI	0.02	\$21,583	\$12,767	\$10,732	\$8,021	\$5,309	\$2,597		

### Non-Government Repower Projects

Model Year and Emission Standard of Old Vehicle <sup>3</sup>										
Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New Emission Rate <sup>2</sup> (g/bhp-hr)	2002-2003		2004-2007		2007-2009		2007-2009	
							2.0 (g/bhp-hr)	1.5 (g/bhp-hr)	1.0 (g/bhp-hr)	0.5 (g/bhp-hr)
CI	CI	0.2	\$29,600	\$16,900	\$13,969	\$10,062	\$6,156	\$2,249		
	CI	0.02	\$29,600	\$17,509	\$14,719	\$11,000	\$7,281	\$3,562		
	SI	0.2	\$34,533	\$19,716	\$16,297	\$11,739	\$7,181	\$2,624		
	SI	0.02	\$34,533	\$20,428	\$17,172	\$12,833	\$8,494	\$4,155		

### Non-Government Electric Projects with Optional Electric Infrastructure

Model Year and Emission Standard of Old Vehicle <sup>3</sup>										
Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New Emission Rate <sup>2</sup> (g/bhp-hr)	2002-2003		2004-2007		2007-2009		2007-2009	
							2.0 (g/bhp-hr)	1.5 (g/bhp-hr)	1.0 (g/bhp-hr)	0.5 (g/bhp-hr)
CI	Zero	0	\$73,500	\$43,636	\$36,744	\$27,558	\$18,372	\$9,186		
Infrastr ucture	N/A	N/A	\$36,750	\$21,818	\$18,372	\$13,779	\$9,186	\$4,593		

<sup>1</sup>Ignition Types are as follows: CI = Compression-Ignition (e.g., Diesel), SI = Spark-Ignition (e.g., LPG, CNG), Zero = Zero emission vehicle (e.g., electric).

<sup>2</sup>The 0.2 g/bhp-hr NO<sub>x</sub> emission rate is the current EPA federal standard for new on-road heavy-duty vehicles. The 0.02 g/bhp-hr NO<sub>x</sub> emission rate is an optional California low-NO<sub>x</sub> standard.

<sup>3</sup>The 2010 EPA NO<sub>x</sub> emission rate standard for heavy-duty, compression ignition, on-road vehicles was phased-in from 2007 thru 2010. Engines produced during these years may have a range of NO<sub>x</sub> emission rates. If the EPA certified emission rate for an engine manufactured between 2007 and 2009 falls between one of the NO<sub>x</sub> emission rate values listed on the table, round up to the nearest listed value for the purposes of determining an eligible grant amount.

## Shuttle Buses – Medium (24-28 feet in length)

### Non-Government Replacement Projects

Model Year and Emission Standard of Old Vehicle <sup>3</sup>										
Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New Emission Rate <sup>2</sup> (g/bhp-hr)	<2002-2003		2004-2007		2007-2009		2007-2009	
							2.0 (g/bhp-hr)	1.5 (g/bhp-hr)	1.0 (g/bhp-hr)	0.5 (g/bhp-hr)
CI	SI	0.2	\$24,250	\$13,845	\$11,444	\$8,243	\$5,043	\$1,843		
	SI	0.02	\$24,250	\$14,345	\$12,059	\$9,012	\$5,965	\$2,918		

### Non-Government Repower Projects

Model Year and Emission Standard of Old Vehicle <sup>3</sup>										
Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New Emission Rate <sup>2</sup> (g/bhp-hr)	<2002-2003		2004-2007		2007-2009		2007-2009	
							2.0 (g/bhp-hr)	1.5 (g/bhp-hr)	1.0 (g/bhp-hr)	0.5 (g/bhp-hr)
CI	SI	0.2	\$38,800	\$22,152	\$18,310	\$13,189	\$8,069	\$2,948		
	SI	0.02	\$38,800	\$22,951	\$19,294	\$14,419	\$9,544	\$4,669		

### Non-Government Electric Projects with Optional Electric Infrastructure

Model Year and Emission Standard of Old Vehicle <sup>3</sup>										
Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New Emission Rate <sup>2</sup> (g/bhp-hr)	<2002-2003		2004-2007		2007-2009		2007-2009	
							2.0 (g/bhp-hr)	1.5 (g/bhp-hr)	1.0 (g/bhp-hr)	0.5 (g/bhp-hr)
CI	Zero	0	\$80,500	\$47,792	\$40,243	\$30,182	\$20,122	\$10,061		
	Infrastru cture	N/A	\$40,250	\$23,896	\$20,122	\$15,091	\$10,061	\$5,031		

<sup>1</sup>Ignition Types are as follows: CI = Compression-Ignition (e.g., Diesel), SI = Spark-Ignition (e.g., LPG, CNG), Zero = Zero emission vehicle (e.g., electric).

<sup>2</sup>The 0.2 g/bhp-hr NO<sub>x</sub> emission rate is the current EPA federal standard for new on-road heavy-duty vehicles. The 0.02 g/bhp-hr NO<sub>x</sub> emission rate is an optional California low-NO<sub>x</sub> standard.

<sup>3</sup>The 2010 EPA NO<sub>x</sub> emission rate standard for heavy-duty, compression ignition, on-road vehicles was phased-in from 2007 thru 2010. Engines produced during these years may have a range of NO<sub>x</sub> emission rates. If the EPA certified emission rate for an engine manufactured between 2007 and 2009 falls between one of the NO<sub>x</sub> emission rate values listed on the table, round up to the nearest listed value for the purposes of determining an eligible grant amount.

## Shuttle Buses – Large (29-40 feet in length)

### Non-Government Replacement Projects

		Model Year and Emission Standard of Old Vehicle <sup>3</sup>							
Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New Emission Rate <sup>2</sup> (g/bhp-hr)	<2002-2003	2004-2007	2007-2009 2.0 (g/bhp-hr)	2007-2009 1.5 (g/bhp-hr)	2007-2009 1.0 (g/bhp-hr)	2007-2009 0.5 (g/bhp-hr)	
CI	CI	0.2	\$35,000	\$19,983	\$16,517	\$11,898	\$7,279	\$2,659	
	CI	0.02	\$35,000	\$20,704	\$17,404	\$13,007	\$8,609	\$4,212	
	SI	0.2	\$33,333	\$19,031	\$15,730	\$11,331	\$6,932	\$2,533	
	SI	0.02	\$33,333	\$19,718	\$16,575	\$12,387	\$8,199	\$4,011	

### Non-Government Repower Projects

		Model Year and Emission Standard of Old Vehicle <sup>3</sup>							
Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New Emission Rate <sup>2</sup> (g/bhp-hr)	<2002-2003	2004-2007	2007-2009 2.0 (g/bhp-hr)	2007-2009 1.5 (g/bhp-hr)	2007-2009 1.0 (g/bhp-hr)	2007-2009 0.5 (g/bhp-hr)	
CI	CI	0.2	\$56,000	\$31,973	\$26,427	\$19,036	\$11,646	\$4,255	
	CI	0.02	\$56,000	\$33,126	\$27,846	\$20,810	\$13,774	\$6,738	
	SI	0.2	\$53,333	\$30,450	\$25,169	\$18,130	\$11,091	\$4,052	
	SI	0.02	\$53,333	\$31,548	\$26,520	\$19,819	\$13,119	\$6,418	

### Non-Government Electric Projects with Optional Electric Infrastructure

		Model Year and Emission Standard of Old Vehicle <sup>3</sup>							
Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New Emission Rate <sup>2</sup> (g/bhp-hr)	<2002-2003	2004-2007	2007-2009 2.0 (g/bhp-hr)	2007-2009 1.5 (g/bhp-hr)	2007-2009 1.0 (g/bhp-hr)	2007-2009 0.5 (g/bhp-hr)	
CI	Zero	0	\$102,500	\$60,853	\$51,241	\$38,431	\$25,621	\$12,810	
Infrastructure	N/A	N/A	\$51,250	\$30,427	\$25,621	\$19,216	\$12,811	\$6,405	

<sup>1</sup>Ignition Types are as follows: CI = Compression-Ignition (e.g., Diesel), SI = Spark-Ignition (e.g., LPG, CNG), Zero = Zero emission vehicle (e.g., electric).

<sup>2</sup>The 0.2 g/bhp-hr NO<sub>x</sub> emission rate is the current EPA federal standard for new on-road heavy-duty vehicles. The 0.02 g/bhp-hr NO<sub>x</sub> emission rate is an optional California low-NO<sub>x</sub> standard.

THE 2010 EPA NO<sub>x</sub> EMISSION RATE STANDARDS FOR HEAVY-DUTY, COMPRESSION IGNITION, OFF-ROAD VEHICLES WAS PROSCURTD FROM 2007 AND 2010. EMISSIONS PRODUCED DURING THESE YEARS MAY HAVE A RANGE OF NO<sub>x</sub> EMISSION RATES. IF THE EPA CERTIFIED EMISSION RATE FOR AN ENGINE MANUFACTURED BETWEEN 2007 AND 2009 FALLS BETWEEN ONE OF THE NO<sub>x</sub> EMISSION RATE VALUES LISTED ON THE TABLE, ROUND UP TO THE NEAREST LISTED VALUE FOR THE PURPOSES OF DETERMINING AN ELIGIBLE GRANT AMOUNT.



**Transit/Urban Buses  
Non-Government Replacement Projects**

Model Year and Emission Standard of Old Vehicle <sup>3</sup>									
Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New Emission Rate <sup>2</sup> (g/bhp-hr)	<2002-2003	2004-2007	2007-2009 2.0 (g/bhp-hr)	2007-2009 1.5 (g/bhp-hr)	2007-2009 1.0 (g/bhp-hr)	2007-2009 0.5 (g/bhp-hr)	
CI	CI	0.2	\$117,613	\$67,150	\$55,503	\$39,981	\$24,458	\$8,936	
	CI	0.02	\$117,613	\$69,572	\$58,484	\$43,707	\$28,929	\$14,152	
	SI	0.2	\$69,662	\$39,773	\$32,874	\$23,681	\$14,487	\$5,293	
	SI	0.02	\$69,662	\$41,207	\$34,640	\$25,887	\$17,135	\$8,382	

**Non-Government Repower Projects**

Model Year and Emission Standard of Old Vehicle <sup>3</sup>									
Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New Emission Rate <sup>2</sup> (g/bhp-hr)	<2002-2003	2004-2007	2007-2009 2.0 (g/bhp-hr)	2007-2009 1.5 (g/bhp-hr)	2007-2009 1.0 (g/bhp-hr)	2007-2009 0.5 (g/bhp-hr)	
CI	CI	0.2	\$188,180	\$107,439	\$88,804	\$63,969	\$39,134	\$14,298	
	CI	0.02	\$188,180	\$111,315	\$93,574	\$69,930	\$46,287	\$22,644	
	SI	0.2	\$111,459	\$63,636	\$52,599	\$37,889	\$23,179	\$8,469	
	SI	0.02	\$111,459	\$65,932	\$55,424	\$41,420	\$27,416	\$13,412	

**Non-Government Electric Projects with Optional Electric Infrastructure**

Model Year and Emission Standard of Old Vehicle <sup>3</sup>									
Old Ignition Type <sup>1</sup>	New Ignition Type <sup>1</sup>	New Emission Rate <sup>2</sup> (g/bhp-hr)	<2002-2003	2004-2007	2007-2009 2.0 (g/bhp-hr)	2007-2009 1.5 (g/bhp-hr)	2007-2009 1.0 (g/bhp-hr)	2007-2009 0.5 (g/bhp-hr)	
CI	Zero	0	\$315,488	\$187,303	\$157,717	\$118,288	\$78,859	\$39,429	
Infrastructure	N/A	N/A	\$157,744	\$93,652	\$78,859	\$59,144	\$39,430	\$19,715	

<sup>1</sup>Ignition Types are as follows: CI = Compression-Ignition (e.g., Diesel), SI = Spark-Ignition (e.g., LPG, CNG), Zero = Zero emission vehicle (e.g., electric).

<sup>2</sup>The 0.2 g/bhp-hr NO<sub>x</sub> emission rate is the current EPA federal standard for new on-road heavy-duty vehicles. The 0.02 g/bhp-hr NO<sub>x</sub> emission rate is an optional California low-NO<sub>x</sub> standard.

<sup>3</sup>The 2010 EPA NO<sub>x</sub> emission rate standard for heavy-duty, compression ignition, on-road vehicles was phased-in from 2007 thru 2010. Engines produced during these years may have a range of NO<sub>x</sub> emission rates. If the EPA certified emission rate for an engine manufactured between 2007 and 2009 falls between one of the NO<sub>x</sub> emission rate values listed on the table, round up to the nearest listed value for the purposes of determining an eligible grant amount.