

**T E X A S COMMISSION ON ENVIRONMENTAL QUALITY**  
**P. O. BOX 13087, MC 204**  
**AUSTIN, TEXAS 78711-3087**

April 29, 2010

**ADDENDUM NUMBER 1**

TO

SOLICITATION TITLE: TERP Emissions Reduction Incentive Grants - Request for Applications  
TEXAS CLEAN FLEET PROGRAM  
SOLICITATION NUMBER: 582-10-92628  
DUE DATE: June 30, 2010

The following are changes/clarifications/additions to the above referenced Solicitation.

- Item A. Request for Grant Applications, Page 4, Section 2.4.a., paragraph 1, which states: "The vehicle and engine being purchased must be new and certified to the current federal emissions standards applicable to that vehicle and/or engine." With regard to this provision, the following clarification is provided.

Under this provision, the vehicle and/or engine being purchased must have been certified under the federal emissions certification program administered by the U.S. Environmental Protection Agency. The certification may either be to the specific nitrogen oxides (NO<sub>x</sub>) emissions rate identified in the federal standards for that model year of vehicle or engine, as applicable, or to a Family Emissions Limit (FEL). The FEL emissions rate will be documented on the certification forms issued by the EPA and in the EPA certification tables.

- Item B. Request for Grant Applications, Appendix A, Page 26, third paragraph from the bottom of the page, which states: "For heavy-duty engines, the engine must be certified to the current federal NO<sub>x</sub> emissions standard or less." With regard to this provision, the following clarification is provided.

The certification may either be to the specific nitrogen oxides (NO<sub>x</sub>) emissions rate identified in the federal standards for that model year of vehicle or engine, as applicable, or to a Family Emissions Limit (FEL). The FEL emissions rate will be documented on the certification forms issued by the EPA and in the EPA certification tables.

- Item C. Texas Clean Fleet Program, *Supplemental Activity Application Form For Replacement of Heavy-Duty Vehicles*, TCEQ-20556a, Form 4, page 4 of 12. With regard to the instructions at the bottom of Form 4 of this document, change the following statement:

**From:** The new engine must be certified to meet the current NO<sub>x</sub> emission standards or lower (0.2 g/bhp-hr). Heavy-duty engines certified to a Family Emission Limit greater than 0.2 g/bhp-hr of NO<sub>x</sub> do not qualify for purchase.

**To:** The replacement vehicle and engine must be new. If the engine is certified to a Family Emissions Limit (FEL), list the FEL NO<sub>x</sub> emissions rate.

- Item D. Texas Clean Fleet Program, *Supplemental Activity Application Form For Replacement of Heavy-Duty Vehicles*, TCEQ-20556a. This document has been revised to incorporate the changes to the instructions on Form 4, as explained in Item C. above. The revised document is provided in its entirety. However, because changes were only made to instructions on one of the forms (Form 4) in the document and do not change the fields to be completed by the applicant, the program will accept applications submitted using either the new forms or the original forms.

**T E X A S COMMISSION ON ENVIRONMENTAL QUALITY**  
**P. O. BOX 13087, MC 204**  
**AUSTIN, TEXAS 78711-3087**

May 7, 2010

**ADDENDUM NUMBER 2**

TO

SOLICITATION TITLE: TERP Emissions Reduction Incentive Grants - Request for Applications  
TEXAS CLEAN FLEET PROGRAM  
SOLICITATION NUMBER: 582-10-92628  
DUE DATE: June 30, 2010

The following are changes/clarifications/additions to the above referenced Solicitation.

- Item A. Request for Grant Applications, Appendix A, Table A.10, Pages 28 and 29. The attached pages replace pages 28 and 29 in the Request for Grant Applications. Changes were made to Table A.10 to provide the correct conversion factors. Applicants should use these corrected factors when calculating the nitrogen oxides (NO<sub>x</sub>) emissions reductions.

**Table A.10 Conversion Factors by Model Year**

Vehicle Class – MDPV, MDV4, and HDD2b Medium/Heavy-Duty Diesel Vehicles (8,501-10,000 lbs GVWR)		Vehicle Class – MDV5 and HDDV3 Medium/Heavy-Duty Diesel Vehicles (10,001-14,000 lbs GVWR)		Vehicle Class – HDDV4 Heavy-Duty Diesel Vehicles (14,001-16,000 lbs GVWR)		Vehicle Class – HDDV5 Heavy-Duty Diesel Vehicles (16,001-19,500 lbs GVWR)	
Model Year	Conversion Factor (bhp-hr/mi)	Model Year	Conversion Factor (bhp-hr/mi)	Model Year	Conversion Factor (bhp-hr/mi)	Model Year	Conversion Factor (bhp-hr/mi)
2012	1.09	2012	1.25	2012	1.46	2012	1.57
2011	1.09	2011	1.25	2011	1.46	2011	1.57
2010	1.09	2010	1.25	2010	1.46	2010	1.57
2009	1.09	2009	1.25	2009	1.46	2009	1.57
2008	1.09	2008	1.25	2008	1.46	2008	1.57
2007	1.09	2007	1.25	2007	1.46	2007	1.57
2006	1.09	2006	1.25	2006	1.46	2006	1.57
2005	1.09	2005	1.25	2005	1.46	2005	1.57
2004	1.09	2004	1.25	2004	1.46	2004	1.57
2003	1.09	2003	1.25	2003	1.46	2003	1.57
2002	1.09	2002	1.25	2002	1.46	2002	1.57
2001	1.09	2001	1.25	2001	1.46	2001	1.57
2000	1.09	2000	1.25	2000	1.46	2000	1.57
1999	1.09	1999	1.25	1999	1.46	1999	1.57
1998	1.09	1998	1.25	1998	1.46	1998	1.57
1997	1.09	1997	1.25	1997	1.46	1997	1.57
1996	1.09	1996	1.25	1996	1.46	1996	1.57
1995	1.09	1995	1.25	1995	1.46	1995	1.59
1994	1.09	1994	1.25	1994	1.47	1994	1.60
1993	1.09	1993	1.25	1993	1.47	1993	1.61
1992	1.10	1992	1.25	1992	1.48	1992	1.62
1991	1.10	1991	1.25	1991	1.48	1991	1.64
1990	1.10	1990	1.25	1990	1.49	1990	1.65
1989	1.10	1989	1.25	1989	1.49	1989	1.66
1988	1.10	1988	1.25	1988	1.50	1988	1.68
1987	0.92	1987	1.76	1987	1.76	1987	1.76
1986	0.92	1986	1.76	1986	1.76	1986	1.76
1985	0.92	1985	1.76	1985	1.76	1985	1.76
1984	0.92	1984	1.76	1984	1.76	1984	1.76
1983	0.92	1983	1.76	1983	1.76	1983	1.76
1982	0.92	1982	1.76	1982	1.76	1982	1.76
1981	0.94	1981	1.76	1981	1.76	1981	1.76
1980	0.94	1980	1.76	1980	1.76	1980	1.76

**Table A.10 (continued)**

Vehicle Class – HDDV6 Heavy-Duty Diesel Vehicles (19,501-26,000 lbs GVWR)		Vehicle Class – HDDV7 Heavy-Duty Diesel Vehicles (26,001-33,000 lbs GVWR)		Vehicle Class – HDDV8a Heavy-Duty Diesel Vehicles (33,001-60,000 lbs GVWR)		Vehicle Class – HDDV8b Heavy-Duty Diesel Vehicles (Greater than 60,000 lbs GVWR)	
Model Year	Conversion Factor (bhp-hr/mi)	Model Year	Conversion Factor (bhp-hr/mi)	Model Year	Conversion Factor (bhp-hr/mi)	Model Year	Conversion Factor (bhp- hr/mi)
2012	1.94	2012	2.41	2012	2.76	2012	3.03
2011	1.94	2011	2.41	2011	2.76	2011	3.03
2010	1.94	2010	2.41	2010	2.76	2010	3.03
2009	1.94	2009	2.41	2009	2.76	2009	3.03
2008	1.94	2008	2.41	2008	2.76	2008	3.03
2007	1.94	2007	2.41	2007	2.76	2007	3.03
2006	1.94	2006	2.41	2006	2.76	2006	3.03
2005	1.94	2005	2.41	2005	2.76	2005	3.03
2004	1.94	2004	2.41	2004	2.76	2004	3.03
2003	1.94	2003	2.41	2003	2.76	2003	3.03
2002	1.94	2002	2.41	2002	2.76	2002	3.03
2001	1.94	2001	2.41	2001	2.76	2001	3.03
2000	1.94	2000	2.41	2000	2.76	2000	3.03
1999	1.94	1999	2.41	1999	2.76	1999	3.03
1998	1.94	1998	2.41	1998	2.76	1998	3.03
1997	1.94	1997	2.41	1997	2.76	1997	3.03
1996	1.94	1996	2.41	1996	2.76	1996	3.03
1995	1.95	1995	2.41	1995	2.78	1995	3.06
1994	1.95	1994	2.41	1994	2.81	1994	3.09
1993	1.96	1993	2.40	1993	2.83	1993	3.11
1992	1.96	1992	2.40	1992	2.85	1992	3.14
1991	1.96	1991	2.40	1991	2.87	1991	3.17
1990	1.97	1990	2.40	1990	2.90	1990	3.20
1989	1.97	1989	2.39	1989	2.92	1989	3.23
1988	1.98	1988	2.39	1988	2.95	1988	3.26
1987	1.87	1987	2.13	1987	2.99	1987	3.13
1986	1.87	1986	2.13	1986	2.99	1986	3.13
1985	1.88	1985	2.14	1985	3.01	1985	3.14
1984	1.89	1984	2.16	1984	3.04	1984	3.14
1983	1.91	1983	2.18	1983	3.06	1983	3.15
1982	1.93	1982	2.19	1982	3.09	1982	3.15
1981	1.99	1981	2.23	1981	3.11	1981	3.26
1980	2.06	1980	2.25	1980	3.06	1980	3.33

**TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
P. O. BOX 13087, MC 204  
AUSTIN, TEXAS 78711-3087**

June 25, 2010

**ADDENDUM NUMBER 3  
TO**

SOLICITATION TITLE: TERP Emissions Reduction Incentive Grants - Request for Applications  
TEXAS CLEAN FLEET PROGRAM  
SOLICITATION NUMBER: 582-10-92628  
ORIGINAL DUE DATE: June 30, 2010  
NEW DUE DATE: July 16, 2010

The following are changes/clarifications/additions to the above referenced Solicitation to change the application due date from June 30, 2010, to July 16, 2010.

Item A. Request for Grant Applications, Inside Cover Sheet. With regard to the application due date on this page, change the date from June 30, 2010, to July 16, 2010.

**From:** Applications will be accepted for consideration during this grant period only if received at the front desk, Rm. 2202, 2nd floor of Building F on the premises of the TCEQ (12100 Park 35 Circle, Austin TX) by *no later than 5:00 p.m. Central Time, June 30, 2010*. Applications received in the TCEQ mail room on this date are not guaranteed to be delivered to Rm. 2202 by the required deadline, so applicants are encouraged to plan their submissions accordingly.

**To:** Applications will be accepted for consideration during this grant period only if received at the front desk, Rm. 2202, 2nd floor of Building F on the premises of the TCEQ (12100 Park 35 Circle, Austin TX) by *no later than 5:00 p.m. Central Time, July 16, 2010*. Applications received in the TCEQ mail room on this date are not guaranteed to be delivered to Rm. 2202 by the required deadline, so applicants are encouraged to plan their submissions accordingly.

Item B. Request for Grant Applications, page 14, Section 4.0, Subsection c., Deadline for Submission. With regard to the application due date in this Subsection, change the date from June 30, 2010, to July 16, 2010.

**From:** Proposals will be accepted for consideration during this grant period only if received at the front desk, Rm. 2202, 2nd floor of Building F on the premises of the TCEQ by *no later than 5:00 p.m. Central Time, June 30, 2010*. Applications received in the TCEQ mail room on this date are not guaranteed to be delivered to Rm. 2202 by the required deadline, so applicants are encouraged to plan their submission accordingly. Applicants are encouraged to submit an application as early as possible.

**To:** Proposals will be accepted for consideration during this grant period only if received at the front desk, Rm. 2202, 2nd floor of Building F on the premises of the TCEQ by *no later than 5:00 p.m. Central Time, July 16, 2010*. Applications received in the TCEQ mail room on this date are not guaranteed to be delivered to Rm. 2202 by the required deadline, so applicants are encouraged to plan their submission accordingly. Applicants are encouraged to submit an application as early as possible.

**Texas Commission on Environmental Quality (TCEQ)  
Texas Emissions Reduction Plan (TERP)  
TEXAS CLEAN FLEET PROGRAM**

**Request for Grant Applications  
Fiscal Year (FY) 2010**

**Grants for Projects to  
Reduce Emissions of Oxides of Nitrogen (NO<sub>x</sub>)  
Through Replacement of Diesel Vehicles with Alternative Fuel or Hybrid Vehicles**

**Solicitation No. 582-10-92628**

**Eligible Counties**

**Austin Area:** Williamson, Travis, Bastrop, Caldwell, and Hays Counties

**Beaumont-Port Arthur:** Hardin, Orange, and Jefferson Counties.

**Dallas-Fort Worth:** Denton, Collin, Tarrant, Dallas, Rockwall, Kaufman, Ellis, Johnson, and Parker Counties.

**Houston-Galveston-Brazoria:** Brazoria, Fort Bend, Waller, Montgomery, Liberty, Chambers, Galveston, and Harris Counties.

**San Antonio Area:** Comal, Guadalupe, Wilson, and Bexar Counties.

**Tyler-Longview:** Upshur, Gregg, Rusk, Smith and Harrison Counties.

**April 23, 2010**

**Texas Commission on Environmental Quality (TCEQ)  
Air Quality Division  
Implementation Grants Section, MC-204  
P.O. Box 13087  
Austin, Texas 78711-3087**



**Applications will be accepted for consideration during this grant period only if received at the front desk, Rm. 2202, 2nd floor of Building F on the premises of the TCEQ (12100 Park 35 Circle, Austin TX) by *no later than 5:00 p.m. Central Time, June 30, 2010.* Applications received in the TCEQ mail room on this date are not guaranteed to be delivered to Rm. 2202 by the required deadline, so applicants are encouraged to plan their submissions accordingly.**



## TABLE OF CONTENTS

<b>1.0 INVITATION</b> .....	1
1.1    PURPOSE.....	1
1.2    STATUTORY AND REGULATORY AUTHORITY.....	1
1.3    DEFINITIONS.....	2
<b>2.0 PROJECT CRITERIA</b> .....	3
2.1    ELIGIBLE APPLICANTS .....	3
2.2    ELIGIBLE COUNTIES.....	3
2.3    ELIGIBLE ACTIVITIES.....	3
2.4    QUALIFYING VEHICLES.....	4
2.5    VEHICLES BEING REPLACED .....	5
2.6    ELIGIBLE COSTS .....	6
2.7    USE OF CONSULTANTS .....	7
2.8    ADDITIONAL REQUIREMENTS.....	8
2.9    MAXIMUM ELIGIBLE GRANT AMOUNTS .....	10
<b>3.0 GRANT ADMINISTRATION</b> .....	11
3.1    REIMBURSEMENT OF EXPENSES .....	11
3.2    MONITORING AND REPORTING.....	13
3.3    PERFORMANCE EVALUATION .....	13
3.4    FUNDING.....	13
<b>4.0 APPLICATION PROCESS</b> .....	13
<b>5.0 SELECTION CRITERIA</b> .....	14
5.1    SCORING.....	14
5.2    OTHER SELECTION FACTORS .....	15
5.3    CALCULATION OF NO <sub>x</sub> EMISSIONS REDUCTIONS .....	16
<b>6.0 APPLICATION REVIEW AND SELECTION PROCESS</b> .....	17
6.1    APPLICATION REVIEW .....	17
6.2    PROJECT SELECTION.....	17
6.3    GRANT AWARD AND CONTRACTING .....	17
6.4    NOTICE TO PROCEED .....	17
6.5    CONTRACT TERM.....	18
<b>7.0 CONSIDERATION OF APPLICATION IN FUTURE GRANT ROUNDS</b> .....	18
<b>APPENDIX A</b> .....	19



**Texas Commission on Environmental Quality (TCEQ)  
Texas Emissions Reduction Plan (TERP)  
TEXAS CLEAN FLEET PROGRAM**

**Request for Grant Applications (RFGA)  
Fiscal Year (FY) 2010**

**Grants for Projects to  
Reduce Emissions of Oxides of Nitrogen (NO<sub>x</sub>)  
Through Replacement of Diesel Vehicles with Alternative Fuel or Hybrid Vehicles**

**1.0 INVITATION**

The TCEQ invites applications from entities that currently own and operate at least 100 on-road light-duty or heavy-duty motor vehicles in Texas and are interested in replacing at least 25 diesel-powered vehicles with alternative fuel or hybrid vehicles. Incentive funding is available for activities that will reduce the emissions of oxides of nitrogen (NO<sub>x</sub>) in designated eligible counties in ozone nonattainment and early action compact areas of Texas.

**1.1 PURPOSE**

The Texas Clean Fleet Program (TCFP) was established by Senate Bill (S.B.) 1759, 81st Texas Legislature, 2009. The program is codified in Texas Health and Safety Code, Chapter 391. The TCEQ adopted rules to implement this program under 30 Texas Administrative Code (TAC) Chapter 114, Subchapter K, Division 5, Texas Clean Fleet Program (TCFP rules).

The TCFP was established to encourage an entity that operates a large fleet of on-road light-duty or heavy-duty vehicles to replace vehicles powered by a diesel engine with alternative fuel or hybrid vehicles. The replacement activities must result in at least a 25 percent reduction in the emissions of nitrogen oxides (NO<sub>x</sub>) compared to the baseline emissions of the vehicles being replaced. NO<sub>x</sub> is usually a byproduct of high-temperature combustion. Everyday functions, like driving a motor vehicle or operating heavy equipment, contribute to the creation of NO<sub>x</sub>. It reacts with volatile organic compounds (VOCs) in the presence of sunlight to form harmful ground-level ozone, or smog.

For this grant application period, the funding is focused on projects that will reduce NO<sub>x</sub> emissions in eligible counties in areas designated as nonattainment for ground-level ozone under the federal Clean Air Act, as well as areas that have implemented an Early Action Compact for reducing ground-level ozone in an effort to avoid nonattainment designation.

Subsequent grant rounds may be expanded to include projects that will reduce NO<sub>x</sub> emissions in other areas of the state.

**1.2 STATUTORY AND REGULATORY AUTHORITY**

The TCEQ's statutory authority to implement this program is based on the following statutory provisions:

- a. Texas Water Code, §5.102, which provides the commission general powers to carry out its duties;
- b. Texas Water Code, §5.103, which authorizes the commission to adopt any rules necessary to carry out the powers and duties under the provisions of the Texas Water Code and other laws of this state;

- c. Texas Water Code, §5.105, which authorizes the commission by rule to establish and approve all general policy of the commission;
- d. Texas Health and Safety Code, §382.017, which authorizes the commission to adopt rules consistent with the policy and purposes of the Texas Clean Air Act;
- e. Texas Health and Safety Code, §382.011, which authorizes the commission to establish the level of quality to be maintained in the state's air and to control the quality of the state's air;
- f. Texas Health and Safety Code, §382.012, which authorizes the commission to prepare and develop a general, comprehensive plan for the control of the state's air;
- g. Texas Health and Safety Code, Chapter 386, which establishes the Texas Emissions Reduction Plan (TERP); and
- h. Texas Health and Safety Code, Chapter 391, as added by S.B. 1759, 81<sup>st</sup> Texas Legislature, which establishes the Texas Clean Fleet Program (TCFP).

The program requirements are established by rule in 30 TAC Chapter 114, Subchapter K, Division 5, Texas Clean Fleet Program.

Additional requirements regarding purchases and compliance with state laws and regulations may be included in the grant contract.

### 1.3 DEFINITIONS

The definitions set forth in the TCFP rules (30 TAC §114.650) apply to this program. Key definitions from the rules are restated below.

- a. Alternative Fuel – A fuel, other than gasoline or diesel fuel. For purposes of this program, this definition is limited to the following: electricity, compressed natural gas (CNG), liquefied natural gas (LNG), hydrogen, propane (LPG), or a mixture of fuels containing at least 85% methanol by volume (M85).
- b. Golf cart – A motor vehicle designed by the manufacturer primarily for transporting persons on a golf course.
- c. Heavy-duty vehicle – A motor vehicle with a gross vehicle weight rating greater than 8,500 pounds and containing an engine certified to the United States Environmental Protection Agency's (EPA) heavy-duty engine standards.
- d. Hybrid vehicle – A motor vehicle with at least two different energy converters and two different energy storage systems on board the vehicle for the purpose of propelling the vehicle.
- e. Light-duty motor vehicle – A motor vehicle with a gross vehicle weight rating of less than 10,000 pounds and certified to the EPA's light-duty vehicle emission standards.
- f. Motor vehicle – A self-propelled device designed for transporting persons or property on a public highway that is required to be registered under Texas Transportation Code, Chapter 502.
- g. Neighborhood electric vehicle – A motor vehicle that:
  - (1) is originally manufactured to meet, and does meet, the equipment requirements and safety standards established for "low-speed vehicles" in Federal Motor Vehicle Safety Standard No. 500 (49 Code of Federal Regulations §571.500);
  - (2) is a slow-moving vehicle, as defined by Texas Transportation Code, §547.001 that is able to attain a speed of more than 20 miles per hour but not more than 25 miles per hour in one mile on a paved, level surface;
  - (3) is a four-wheeled motor vehicle;
  - (4) is powered by electricity or alternative power sources;
  - (5) has a gross vehicle weight rating of less than 3,000 pounds; and
  - (6) is not a golf cart.

## 2.0 PROJECT CRITERIA

### 2.1 ELIGIBLE APPLICANTS

Eligibility requirements are included in the TCFP rules. In accordance with TCFP rules, an eligible entity is a person or entity that owns a fleet of 100 or more on-road vehicles that are currently registered in Texas and include at least 25 on-road diesel vehicles that are eligible for replacement under the TCFP. Additional eligibility information is outlined below.

- a. Eligible applicants include individuals, corporations, organizations, governments or governmental subdivisions or agencies, school districts, business trusts, partnerships, associations, or any other legal entity. This may include a corporation headquartered outside of the state of Texas, but which owns and operates at least 100 vehicles in Texas.
- b. Businesses or other entities in which a TCEQ employee, spouse, or family member of a TCEQ employee has a direct or indirect interest, financial or otherwise, may be prohibited from receiving a grant, depending upon the nature of the interest. Any questions regarding the eligibility of an entity to apply for a grant should be referred to the TERP staff early in the application process.
- c. Eligible applicants do not include entities intending to serve as a third party for the funding, whereby the grant funding and/or cost savings resulting from the funding will be passed through to the owners or operators of the vehicles or equipment.

### 2.2 ELIGIBLE COUNTIES

- a. For this RFGA, the eligible counties (grouped by area) include:
  - **Austin Area:** Williamson, Travis, Bastrop, Caldwell, and Hays Counties
  - **Beaumont-Port Arthur:** Hardin, Orange, and Jefferson Counties.
  - **Dallas-Fort Worth:** Denton, Collin, Tarrant, Dallas, Rockwall, Kaufman, Ellis, Johnson, and Parker Counties.
  - **Houston-Galveston-Brazoria:** Brazoria, Fort Bend, Waller, Montgomery, Liberty, Chambers, Galveston, and Harris Counties.
  - **San Antonio Area:** Comal, Guadalupe, Wilson, and Bexar Counties.
  - **Tyler-Longview:** Upshur, Gregg, Rusk, Smith and Harrison Counties.
- b. For this RFGA, at least 25 percent of the annual mileage of the replacement vehicle purchased under this program over the five-year activity life must occur in one or more of the eligible counties. The applicant must indicate in the application a commitment to operate the vehicles at least 25, 50, or 75 percent of the annual mileage in the eligible counties. Regardless of the usage percentage committed to by the applicant, the vehicle must also be operated at least 75 percent of the annual mileage in Texas.

### 2.3 ELIGIBLE ACTIVITIES

Applications may be submitted to replace existing diesel motor vehicles with qualifying hybrid or alternative fuel vehicles. Applications must include the replacement of at least 25 vehicles, but may include the replacement of a greater number of vehicles. The applicant must commit to completing the replacement purchases within twelve months of the grant award and execution of the grant contract.

## 2.4 QUALIFYING VEHICLES

- a. The vehicle and engine being purchased must be new and certified to the current federal emissions standards applicable to that vehicle and/or engine.

The grant may only pay for the purchase of the qualifying vehicle and is not available to pay for the costs of converting a vehicle to operate on alternative fuels after purchase by the applicant.

For light-duty vehicles, the vehicle and engine are certified as a unit, while for heavy-duty vehicles, the engine receives the certification. The dealer should be able to provide information on the engine and/or vehicle emissions certification. Also, Appendix A of this RFGA includes the weight classifications and emissions certification standards for light-duty vehicles and heavy-duty engines. An emissions certification label is usually found under the hood of a light-duty vehicle and on the engine itself for heavy-duty vehicles. That label will indicate the emissions certification model year of the vehicle and/or engine.

- b. The vehicle being purchased must be replacing a diesel-powered vehicle of the same weight classification and use. Weight classifications for light-duty and heavy-duty on-road vehicles are listed in Appendix A. In general, the replacement vehicle should be of the same type, within the same weight classification, and the same body and axle configuration as the vehicle being replaced. The replacement vehicle must be configured and intended for use in the same application or vocation (for example, regional delivery) as the vehicle being replaced. The TCEQ may accept, case-by-case, vehicles of a different type and/or body and axle configuration to account for the latest technology used for a specific vocation.
- c. For light-duty vehicles, the vehicle being purchased must be certified to emit at least 25 percent less NO<sub>x</sub> than the vehicle being replaced, based on either the certified emissions of the vehicle or a baseline emission level set by the TCEQ. Emissions standards and baseline NO<sub>x</sub> emission levels are listed in Appendix A.
- d. For heavy-duty vehicles, the engine on the vehicle being purchased must be certified to emit at least 25 percent less NO<sub>x</sub> than the engine on the vehicle being replaced, based on either the certified emissions of the engine or a baseline emission level set by the TCEQ. Emissions standards and baseline NO<sub>x</sub> emission levels are listed in Appendix A.
- e. The vehicle being purchased must be a hybrid vehicle or fueled by an alternative fuel.

If the vehicle being purchased uses a *bi-fuel* or *multi-fuel* engine, capable of operating independently on gasoline or diesel fuel in addition to the alternative fuel, the applicant must commit to operating the vehicle using the alternative fuel for an average of at least 75 percent of the annual operation of the vehicle. This requirement also applies to *flex-fuel* engines capable of operating on an alternative fuel, a blend of the alternative fuel and gasoline/diesel, and gasoline/diesel without the alternative-fuel blend. Grant recipients will need to maintain fueling records to verify that this requirement is met and to certify compliance in reports submitted to the TCEQ. Those records must also be made available to the TCEQ upon request, including review by monitoring staff during site visits.

Unless otherwise required by the TCEQ to address unique types of vehicles and engines, the fuel use tracking and verification requirements will not apply to hybrid vehicles, vehicles with engines dedicated to using only the alternative fuel, or *dual-fuel* engines that use a combination of gasoline or diesel fuel and the alternative fuel in regular operation of the

engine, such as when diesel fuel is used as an ignition source for operation using the alternative fuel.

- f. A neighborhood electric vehicle does not qualify for purchase under this program. Also, golf carts and similar vehicles that do not meet the definition of a motor vehicle do not qualify for purchase under this program.
- g. A vehicle may not have been used as a qualifying vehicle to qualify for a previous TCFP grant or a grant from another entity. Also, the vehicle may not have been used to qualify for a similar grant or tax credit in another jurisdiction.

Subject to the above provisions, applicants may combine funding under this program with new funding provided from other financial incentive programs and/or tax credits for the purchase of the grant-funded vehicle. The other funding or tax credits must be listed in the application and the combined assistance may not exceed the incremental cost to the applicant for the purchase of the vehicle. This includes tax credits that the applicant intends to take for the purchase of the vehicle.

Unless otherwise approved by the TCEQ, funding from other TERP grant programs may not be combined with this program for the purchase of a qualifying vehicle. This includes funding from the TERP Emissions Reduction Incentive Grants Program, Rebate Grants Program, Third-Party Grants Program (including sub-grants issued by third-party grant recipients), and Texas Clean School Bus Program.

In addition, emissions reductions achieved by the TCFP must be assigned to the TCEQ and any marketable emissions reduction credits must be retired. Therefore, if another incentive program requires that emissions reductions achieved by the project be assigned for use by that program, funding from that program may not be combined with a TCFP grant for the purchase of a qualifying vehicle.

## **2.5 VEHICLES BEING REPLACED**

- a. The vehicle being replaced must be a diesel-powered on-road motor vehicle that has been owned, registered, and operated by the applicant in Texas for at least the two years immediately preceding the submission of a grant application. Applicants must certify compliance with these requirements in the application. Applicants must also provide documentation with the application to show compliance with the ownership and registration requirements, including:
  - (1) a copy the vehicle title listing the applicant as the owner of the vehicle on the front of the title and with an issuance date of at least two years prior to the application submission date;
  - (2) a copy of the current registration renewal receipt or other registration documents; and
  - (3) if the registration renewal date is after January 2010, a copy of the previous registration renewal receipt or other registration documents.

The current title must list the applicant as the owner on the front of the title. If the current title is not at least two years old, the applicant must provide copies of the previous title documents covering the two-year period and listing the applicant as the owner on the front of the title. If the previous title documents were lost or are otherwise not available, the applicant must provide a written explanation and provide evidence to show that the vehicle was owned and titled to the applicant.

The TCEQ may accept, on a case-by-case basis, previous title documents listing a different name in instances where ownership of the company changed, the company was dissolved and the assets of the company were purchased by another company for continued operation, or the company changed names or incorporation status. The use or vocation of the vehicle may not have changed. Applicants with this situation should contact the TCEQ to discuss prior to submitting an application. This provision does not include sale or transfer of the vehicle among different entities or between individuals. Also, lease-to-own agreements and other purchase agreements where the title is not transferred into the applicant's name are not considered ownership for purposes of meeting the two-year ownership requirement.

An apportioned registration issued in another state, even if that registration includes Texas in the list of apportioned states for operation of the vehicle, will not satisfy the requirement that the vehicle have been registered in Texas for the preceding two years. An apportioned registration issued by the State of Texas may satisfy the registration requirement, if the applicant can certify that the vehicle was operated primarily in Texas over the preceding two years.

Unregistered vehicles, including vehicles used exclusively for non-road purposes, are not eligible for replacement under this program.

- b. The vehicle being replaced must be in good operating condition with at least two years remaining useful life. To verify compliance with this requirement, the vehicle must have a current safety inspection sticker, if a safety inspection is required for that type of vehicle. Unless otherwise accepted by the TCEQ, the application must also include a signed certification of the vehicle condition by an independent service agent. The service agent may not be an employee or consultant of the applicant and must be qualified through experience and/or professional license or certification to assess the condition of the vehicle.
- c. The TCEQ may accept, case-by-case, vehicles for replacement that were taken out of service and disposed of prior to the submission of the application, if those vehicles were removed from service as a direct result of the purchase of the new vehicle to be funded under the grant, the purchase of which may not have been completed prior to 90 days prior to the opening of this grant application period. All disposition requirements must have been met and the vehicle must have had a current registration and safety inspection sticker at the time it was taken out of service. If, under this alternative, the vehicle was disposed of prior to inspection by an independent service agent, then the applicant must provide documentation, as may be requested by the TCEQ, to verify that the vehicle was in good operating condition and had at least two years of remaining useful life at the time of disposition.
- d. To be eligible for replacement, vehicles and engines imported into the United States from another country must have been legally imported and met all applicable emissions certification requirements for importation.

## **2.6 ELIGIBLE COSTS**

- a. The grant recipient may be eligible for reimbursement of a percentage of the incremental cost of purchasing the qualifying vehicle to replace an existing vehicle. The incremental cost is the actual, reasonable, and necessary cost of the vehicle minus the scrap value of the vehicle being replaced. The TCEQ may establish a default scrap value for the vehicle being replaced. For this RFGA, a default scrap value of \$1,000 will be set for heavy-duty vehicles and \$500 for light-duty vehicles.

The incremental cost may include the invoice cost for the purchase of the vehicle, including taxes, duty, protective in-transit insurance, freight charges, and other costs and fees normally included in a vehicle purchase.

- b. Price quotes and invoices must list standard features and costs and include optional features and costs as separate line items. Optional features included in the purchase costs must be necessary for the normal operation and vocation of that vehicle. The TCEQ may, at its discretion, exclude optional features from the approved incremental costs used to determine the grant amount, if the options are determined not to be reasonable and necessary.
- c. The application forms will require submission of comparison price quotes and/or other information to show that the price of the vehicle is reasonable.
- d. The costs to purchase and install a Global Positioning System (GPS) to track and log the location and use of the vehicle may be included in the incremental costs. Ongoing operational and maintenance charges may not be included. The GPS system must be purchased from the vendor authorized by and contracted with the TCEQ to provide the system. Contact the TCEQ for information on the approved GPS provider.
- e. Finance fees and charges may not be included in the incremental costs.
- f. Administrative costs of the applicant may not be included in the incremental costs, including the costs for a third-party to prepare and submit the application documents.
- g. Applicants must list in the application all other financial incentives and tax credits received and/or expected to be received for the vehicle purchase. The combined total of the TCFP grant and other financial incentives or assistance, including tax credits received or expected to be received may not exceed the incremental costs to the applicant.

## **2.7 USE OF CONSULTANTS**

- a. Private consultants may be available to assist an applicant to complete and submit an application. Those consultants do not represent the TCEQ and the TCEQ neither encourages nor discourages the use of a consultant to assist with the application process. The TCEQ has no agreement with any consultant that applications submitted by a particular consultant will receive more favorable treatment than other applications. Any fees charged by a consultant are the responsibility of the applicant or the vendor and may not be charged to the grant, either directly or as an addition to the cost basis of the grant-funded vehicle. It is generally considered acceptable for an applicant to accept assistance from a vendor or an agent of a vendor in preparing an application, as long as any decision by the applicant to purchase the grant-funded vehicle from the vendor is made independently and meets the other reasonableness provisions in the grant contract. However, if the consultant is paid directly by the applicant to complete the application documents and to act as the applicant's agent for the grants process, purchases of grant-funded vehicles from a company in which the consultant has an interest would not normally be considered appropriate by the TCEQ under the reasonableness requirements of the grant contract. Contact the TCEQ staff with any questions.
- b. The applicant must indicate in the application if the application was prepared by a third party. If a third party prepares the application, the third-party preparer must also sign the application and certify that the information provided is correct.

## 2.8 ADDITIONAL REQUIREMENTS

Additional criteria that apply to activities funded under this RFGA are explained below.

- a. Applications must include a minimum of 25 replacement activities. There is no maximum number of activities that may be included, although applicants should consider the deadlines for completing the grant-funded purchases when determining the number of vehicles to include in the project.
- b. Per statutory and regulatory requirements, applicants must plan to complete the grant-funded purchases within a twelve-month period. The grant contract termination date will be established approximately twelve months from the expected contract execution date. The purchases must be completed prior to the termination date of the contract. The TCEQ will consider requests to extend the termination date, at its discretion, to address delays outside of the control of the grant recipient. Extensions may require a formal change to the grant contract. Requests for an extension should be submitted to the TCEQ at least two months prior to the termination date of the contract.
- c. Unless otherwise accepted by the TCEQ, an applicant may not simultaneously apply for the same project under this RFGA and a separate TERP grant program. If an eligible application for a project is not selected for funding under one TERP grant program, the applicant may then submit an application under a different TERP grant program.
- d. Vehicles and engines replaced under this program must be scrapped or otherwise rendered permanently inoperable within ninety days of the grant recipient being reimbursed by the TCEQ. Vehicles and engines must be completely crushed or a hole, large enough to prevent repairs (usually at least 3 inches in diameter), must be drilled or cut in the engine block and the frame rails or other structural components must be cut so that repairs are not possible. A certification of the disposition of the old vehicle and engine must be provided on forms provided by the TCEQ. The grant contract will include specific provisions for scrapping the vehicles and engines and for submitting disposition verification information to the TCEQ.
- e. The applicant must commit in the application to a percentage of annual use of each grant-funded vehicle, as measured by annual mileage, that will occur in the eligible counties. The options available in the application are 25, 50, or 75 percent of annual mileage. The percentage of annual mileage committed to by the applicant during the five-year Activity Life must take place within the eligible counties marked in the Approved Application. In addition, regardless of the percentage of annual use that will occur in the eligible counties, at least 75 percent of the annual mileage must occur within Texas.
- f. Emissions reductions attributable to projects funded under this RFGA will be used by the TCEQ. Therefore, funding may not be combined with other incentive programs that also require use of the emissions reductions. In addition, any activity involving a new emissions reduction measure that would otherwise generate marketable credits under state or federal emissions reduction credit averaging, banking, or trading programs is not eligible for funding under this program unless:
  - the activity includes the transfer of the reductions that would otherwise be marketable credits to the TCEQ; and
  - the reductions are permanently retired.

- g. Per the TCFP rules (30 TAC §114.652), the vehicle being purchased may not have been used to qualify for a grant under this program for a previous grant period or by another entity. Also, the vehicle may not have qualified for a similar grant or tax credit in another jurisdiction.
- h. Applicants must agree to monitor the use of the grant-funded vehicle and to report at least annually to the TCEQ for the life of each grant-funded activity, which will extend for five years after the TCEQ receives and accepts confirmation of proper disposition of the vehicle and engine being replaced.
- i. Applicants must agree to notify the TCEQ of any termination of use, change in use, sale, transfer, or accidental or intentional destruction of grant-funded vehicles during the life of each activity.
- j. All applications for funding must be completed according to the application instructions and submitted within the required deadline.
- k. Unless otherwise accepted by TCEQ, the vehicle being purchased may not have been purchased prior to 90 days before the opening date of the grant application period under this RFGA. Under this provision, the vehicle may have been ordered, but the expenses may not have been paid to finalize the purchase prior to the 90-day limit. Also, the TCEQ provides no assurances that a project will be awarded a grant and the TCEQ has no liability for expenses incurred by an applicant prior to the execution of a grant contract and issuance of a Notice to Proceed.
- l. Applicants selected to receive grant funding will be required to execute a contract with the TCEQ. All services or work carried out under a contract awarded as a result of this RFGA must be completed within the scope, time frames, and funding limitations specified in the contract. A copy of the contract shell is available on the TERP web site at [www.terpgrants.org](http://www.terpgrants.org).
- m. Administrative costs and other internal costs of the grant recipient, including but not limited to personnel expenses, internal salaries, indirect costs, and travel will not be eligible. This restriction also applies to situations where the grant recipient acts as a transportation provider for delivery of the grant-funded vehicle before or after acceptance of the vehicle.
- n. Fees for a third-party consultant hired by the grant recipient to manage and administer the grant-funded activities, including coordination of the work and submission of reports and paperwork to the TCEQ for the grant recipient will not be eligible.
- o. If the costs for the purchase and installation of a TCEQ-approved Global Positioning System (GPS) are included in the grant, the grant recipient must agree to pay for any required ongoing operational costs of using the GPS, including the reporting system provided by the vendor, for the Activity Life. Failure to maintain and use the GPS may result in a requirement to return any grant funds used to pay for all or part of the purchase and installation of the GPS.
- p. Under Texas Family Code §231.006, a child support obligor who is more than 30 days delinquent in paying child support and a business entity in which the obligor is a sole proprietor, partner, shareholder, or owner with an ownership interest of at least 25 percent is not eligible to receive a state-funded grant or loan. All business entities applying for a grant under this RFGA must include in the application the name and social security number of the

individual or sole proprietor and each partner, shareholder, or owner with an ownership interest of at least 25 percent of the business entity submitting the application. The certifying official submitting the application must also certify in the application that the individual or business entity named in the application is not ineligible to receive the grant and acknowledges that the grant contract may be terminated and payment may be withheld if the certification is inaccurate.

- q. The grant contract will require grant recipients to maintain the grant-funded vehicles in proper operating condition and to obtain sufficient replacement insurance to repair or replace the vehicles if they are damaged or destroyed during the five-year commitment to the TCEQ.
- r. The grant contract will include provisions for the return of all or a pro-rata share of the grant funds for failure of the grant recipient to meet the conditions for maintaining and operating the vehicles in the eligible counties for the percentage of use required over the five-year Activity Life.

## **2.9 MAXIMUM ELIGIBLE GRANT AMOUNTS**

The maximum eligible grant amounts are established in the TCFP rules, as outlined below.

- a. The maximum eligible grant amount for the replacement of a heavy-duty diesel vehicle is determined as follows:
  - (1) up to 80% of the cost for replacement of a vehicle with an engine manufactured prior to 1988 and certified to meet the federal emissions standards, if any, applicable to the year of manufacture;
  - (2) up to 70% of the cost for replacement of a vehicle with an engine manufactured after 1987 and before 1998 and certified to meet the federal emissions standards applicable to the year of manufacture;
  - (3) up to 60% of the cost for replacement of a vehicle with an engine manufactured after 1997 and before 2004 and certified to meet the federal emissions standards applicable to the year of manufacture; and
  - (4) up to 50% of the cost for replacement of a vehicle with an engine manufactured after 2003 and certified to meet the federal emissions standards applicable to the year of manufacture.
- b. The eligible grant amount for the replacement of a light-duty diesel vehicle is determined as follows:
  - (1) up to 80% of the cost for replacement of a light-duty diesel vehicle of a model year prior to 1994 and certified to meet the federal emissions standards, if any, applicable to the model year of the vehicle;
  - (2) up to 70% of the cost for replacement of a light-duty diesel vehicle of a model year after 1993 and before 2004 and certified to meet the federal emissions standards applicable to the model year of the vehicle; and
  - (3) up to 60% of the cost for replacement of a light-duty diesel vehicle of a model year after 2003 and certified to meet the federal emissions standards applicable to the model year of the vehicle.
- c. Applicants may request less than the eligible amount. If an applicant requests less than the eligible amount, the requested amount will be used by the TCEQ to determine the grant award. If the applicant requests more than the eligible amount, the TCEQ will only consider for award up to the maximum eligible grant amount.

- d. Vehicles that have a gross vehicle weight rating (GVWR) of 10,000 pounds (lbs) or less and were certified to the federal light-duty vehicle emission standards will be considered *light-duty vehicles*. Vehicles greater than 8,500 lb GVWR and that contain an engine that is certified to the federal heavy-duty on-road diesel engine emission standards will be considered *heavy-duty vehicles*.
- (1) Vehicles may have also been certified to California emissions standards by the California Air Resources Board (CARB). However, for purposes of determining the eligible grant amount, the federal vehicle category for the vehicle being replaced applies.
  - (2) The GVWR is the total allowable or recommended vehicle weight, including the loaded weight of the vehicle, driver, passengers, and cargo. The rated weight is usually found on a label affixed to the inside of the door or other area of the vehicle and listed in the owner's manual. The GVWR and vehicle model year should also be listed on the vehicle title.
  - (3) The *emissions label*, located under the hood (for light-duty vehicles) or on the engine (for heavy-duty engines), will state if the vehicle or engine was certified to either the federal emissions standards for a passenger vehicle or light-duty truck, or the standards for a heavy-duty on-road diesel engine. The emissions label will also state the emissions model year to which the vehicle or engine was certified. A very old vehicle or engine may not have an emissions label. In those instances, applicants should still be able to determine the model year of the vehicle or engine and the GVWR of the vehicle, in order to determine the eligible percentage of costs.
  - (4) Also, beginning in 2004, the EPA began to certify vehicles between 8,500 lb and 10,000 lb GVWR as *medium-duty passenger vehicles* (MDPV) if those vehicles were designed to carry passengers. This change was to account for the much greater production of large sport utility vehicles (SUVs) and vans intended for passenger use. Prior to 2004, vehicles over 8,500 lb GVWR would have been certified under the federal heavy-duty on-road engine emissions standards. After the new category was in place, vehicles between 8,500 lb and 10,000 lb GVWR may have been certified under either the federal light-duty vehicle emission standards as an MDPV or under the heavy-duty engine emission standards, depending upon whether the vehicle was designed for passenger use (excluding buses).
  - (5) For purposes of determining the eligible percentage of costs that may be covered by the grant, the federal emissions certification of the vehicle being replaced applies. If the applicant is replacing a pre-2004 vehicle between 8,500 and 10,000 lb GVWR with a new vehicle certified to the federal standards for a MDPV, the classification of the old vehicle under the heavy-duty engine standards will apply and applicants should use the percentages applicable for replacement of a heavy-duty vehicle, even if the vehicle being purchasing is certified to the standards applicable to a MDPV.

### **3.0 GRANT ADMINISTRATION**

#### **3.1 REIMBURSEMENT OF EXPENSES**

- a. In order to ensure that all revenue received is used under this program, the TCEQ may select projects and award contracts that may ultimately exceed the amount of revenue received. Grant contracts will include a "Notice to Proceed" clause and will specify that reimbursements are contingent upon the TCEQ receiving sufficient revenue to cover the

grant. The TCEQ will provide a written notice to the grant recipient when/if revenue is available to cover the grant. Any expenses incurred by the grant recipient prior to receiving the notice will be at the grant recipient's own risk.

- b. Except as provided for under Section c. below, 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. Requests for reimbursement may be submitted to the TCEQ no more frequently than monthly. 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.
- c. Subject to approval by the TCEQ, the grant recipient may assign the payments due from the TCEQ directly to the supplier, subcontractor, financing or leasing company, or other entity from which the goods or services were procured, leased, or financed by the grant recipient. A properly completed Texas Application for Payee Identification Number and Notice of Assignment must be completed and submitted with, or prior to submission of, the Request for Reimbursement form. Under this option, the goods and services included under a cost must have been received and accepted by the grant recipient, and the grant recipient must have an obligation to pay the expense.
- d. Financial information will be required with each request for reimbursement, listing the status of all expenses and budget items. Reporting forms will be provided by the TCEQ.
- e. For replacement projects, the scrap value is considered a cost of performing the Grant Activities and as such must be reasonable. By reasonable, the value received for the vehicle or equipment being replaced must be the result of arms-length bargaining with the entity taking the old vehicle or equipment. The remuneration received and reported to the TCEQ must reflect the actual reasonable scrap value of the old vehicle or equipment. A grant recipient may be required to list on the financial reporting forms any money or in-kind value received in exchange for the scrapped vehicle or equipment including, but not limited to, cash, goods, services (including the services provided by a consultant to assist in preparing and/or submitting a grant application), gifts, intangibles, discounts, or any other items of value. For on-road vehicle replacement projects, the TCEQ may use a default scrap value of \$1,000 for heavy-duty vehicles and \$500 for light-duty vehicles, in lieu of the grant recipient reporting the actual remuneration received.
- f. Unless otherwise approved by the TCEQ, all project costs must have been incurred and grant-funded vehicles received before the end of the grant contract term, and all final requests for reimbursement will need to be submitted within 45 days after termination of the contract.
- g. Grants will be for the purchase of qualifying vehicles. Vehicle leases are not eligible under this program. A finance lease used to purchase the vehicle must include a binding commitment for the grant recipient to take ownership and title to the vehicle. An option to buy at the end of the lease term will not be sufficient to consider the agreement a finance lease.
- h. Reimbursement will not be authorized for pre-payment of future periodic finance payments. A grant recipient will need to either ensure that sufficient payments will be made prior to the end of the grant contract term to use the grant amount or structure the financing agreement to allow for an up-front payment.

### 3.2 MONITORING AND REPORTING

- a. The grant recipient must agree to monitor the use of grant-funded equipment for the five-year Activity Life.
- b. The beginning and ending dates for the life of each grant-funded activity will be established by the TCEQ. The beginning of the Activity Life will normally be set on the date that the report verifying that the vehicle, equipment, and/or engine being replaced has been properly disposed of is received and accepted by the TCEQ. At that time, the grant recipient will be notified in writing of the beginning and end date of the Activity Life and the monitoring and reporting requirements.
- c. Annual reports on the use of the grant-funded vehicles will be required, using forms to be provided by the TCEQ.
- d. Grant recipients must agree to place an identifying mark or label to be provided by the TCEQ on the grant-funded vehicles if requested to do so by the TCEQ.
- e. The TCEQ is also evaluating technologies that would allow the TCEQ and the grant recipient to electronically track the location and use of grant-funded vehicles and equipment. The grant recipient must agree to install and use a device for tracking the location of grant-funded vehicles and equipment if requested to do so by the TCEQ.

### 3.3 PERFORMANCE EVALUATION

The TCEQ will prepare written evaluations of the performance of the grant recipient upon completion of all reimbursements and also upon the completion of the life of the project or more frequently, as deemed necessary by the TCEQ. The criteria used to evaluate performance will be included in the grant contract. The performance rating on contractor evaluations for a past grant may be considered by the TCEQ in evaluating an application from the grant recipient for additional funding under this program. A rating of marginal or unsatisfactory performance may be used as a basis to lower or otherwise change the priority and ranking of a future application.

### 3.4 FUNDING

- a. The total amount to be awarded under this grant program will depend upon the amount of revenue received into the TERP account. The TCEQ will not be obligated to select project proposals to cover the full amount of expected or available funding.
- b. The TCEQ may select parts of a proposal for funding and may offer to fund less than the dollar amount requested in a proposal.

### 4.0 APPLICATION PROCESS

- a. **Required Forms.** Application forms and complete guidelines and criteria on the activities eligible for funding under this program may be viewed and downloaded from the TERP web site at [www.terpgrants.org](http://www.terpgrants.org). Applications may also be obtained by calling the TERP toll free number at 800- 919-TERP (8377).

- b. Application Submission.** To apply for funding, applicants must complete and submit three copies of the grant application, including the required documentation, photos, and documents described in the instructions included with the application forms. All required signatures must be original on at least one of the copies and should be completed in blue ink. Photocopies, fax copies, and other non-original copies of the signatures will not be accepted. Three (3) copies of the completed forms should be submitted to:

Regular Mail: Texas Commission on Environmental Quality  
Air Quality Division  
Implementation Grants Section (TCFP), MC-204  
P.O. Box 13087  
Austin, TX 78711-3087

Express Mail: Texas Commission on Environmental Quality  
Air Quality Division  
Implementation Grants Section (TCFP), MC-204  
12100 Park 35 Circle  
Austin, TX 78753

- c. Deadline for Submission.** Proposals will be accepted for consideration during this grant period only if received at the front desk, Rm. 2202, 2nd floor of Building F on the premises of the TCEQ by *no later than 5:00 p.m. Central Time, June 30, 2010*. Applications received in the TCEQ mail room on this date are not guaranteed to be delivered to Rm. 2202 by the required deadline, so applicants are encouraged to plan their submission accordingly. Applicants are encouraged to submit an application as early as possible.
- d. Additional Program Information.** Individuals desiring further information are encouraged to call the TERP staff at **1-800-919-TERP (8377)**.
- e. Public Information.** Upon submission, all proposals become the property of the State of Texas and as such become subject to the Texas Open Records Act, V.T.C.S. art. 6252-17a.

## 5.0 SELECTION CRITERIA

### 5.1 SCORING

Applications will be selected for funding on a competitive basis, using the criteria explained below. The final point system to assign to each factor may be adjusted prior to the assessment and scoring process, to account for the range in the cost-effectiveness of the applications received and to ensure that the scoring process fairly compares the projects.

**a. Cost per ton of NO<sub>x</sub> projected to be reduced (up to 70 points)**

Applications will be scored according to the cost per ton of NO<sub>x</sub> reduced by the project. The cost per ton is determined by dividing the grant amount by the projected tons of reduction in NO<sub>x</sub> emissions to be achieved over the life of the project. For this RFGA, only the NO<sub>x</sub> emissions reductions that will occur in the eligible counties will be considered in the cost per ton calculations.

**b. Long-term commitment to reduce emissions (up to 10 points)**

In order to ensure that the funding will result in permanent reductions in vehicle emissions, the applicant will be asked to provide information concerning the applicant's long-term commitment to reducing vehicle emissions in Texas. A total of 10 points may be assigned under this category.

- Existing policy documents are in place documenting an institutional commitment to reduce emissions – up to 5 points
- Significant actions have been taken to date by the applicant to reduce emissions in Texas and/or the applicant has plans in place and commits to update, replace, or otherwise modify additional vehicles to reduce emissions in Texas, beyond those included in the grant application – up to 5 points

**c. Availability of fueling infrastructure and fuel sources, including electric charging systems for electric vehicles (up to 10 points)**

The use of alternative fuel vehicles is dependent on the availability of fuel and fueling infrastructure, including charging systems for electric vehicles. Applicants will be asked to demonstrate in the application the current and/or expected availability of fuel and fueling infrastructure for use by the grant-funded vehicles.

- Hybrid vehicles (no fueling infrastructure needed) – up to 10 points
- A fuel source and any needed fueling infrastructure are currently available or under construction – up to 10 points
- Plans for new fueling infrastructure and/or a fuel source have been approved, financing or funding has been identified, and it is likely that the fuel and infrastructure will be available by the time the vehicles are ready to place in service – up to 5 points
- The availability of fuel and/or fueling infrastructure is still not certain and may be subject to other factors – 0 points

## **5.2 OTHER SELECTION FACTORS**

In addition to the selection criteria explained above, and regardless of the scores and ranking assigned to a project, the TCEQ may consider the additional criteria explained below when selecting applications for grant funding.

- a. Regardless of the scores and ranking assigned, the TCEQ may base funding decisions on other factors associated with best achieving the goals of the program and the TCEQ is not obligated to select a project for funding. As part of this consideration, the TCEQ may give priority to projects in certain areas and/or for certain emission sources.
- b. The TCEQ may make selection for funding contingent upon agreement by the applicant with additional conditions or changes to the project pertaining to equipment, logistical considerations, expenses, and other program elements.
- c. The TCEQ may select parts of a proposal for funding and may offer to fund smaller amounts and/or a smaller percentage of the eligible costs than requested in the application.
- d. Based on the number and types of applications received, the TCEQ may establish a cut-off level for grant selections that is less than the available funding, and projects may be offered a smaller amount of funding or may be held until a later date.

- e. The TCEQ is not obligated to fund a proposal from an applicant that has demonstrated marginal or unsatisfactory performance on previous grants and contracts with the TCEQ and other state agencies. A rating of marginal or unsatisfactory performance on past contracts may be used as a basis to lower or otherwise change the priority and ranking of an application.
- f. The TCEQ is not obligated to fund a proposal from an applicant or for a project based on a determination of the risks associated with the applicant and/or project, including the financial condition of the applicant and other risk factors as may be determined by the TCEQ. The TCEQ may also include additional controls in a grant contract to address the risks that may be involved with providing a grant to an applicant considered to be high risk.
- g. The TCEQ is not obligated to fund a proposal from an applicant that is under federal, state, or local enforcement action for violation of environmental laws or permit conditions.
- h. The TCEQ is not obligated to fund a proposal from an applicant with an overall compliance history classification of *Poor* (45.01 or greater) on the TCEQ's Compliance History Database, for applicants that are subject to the rating.
- i. The TCEQ is not obligated to fund a proposal where the emissions reductions are speculative in nature and which pose a higher risk of not being achieved. Regardless of the score assigned to these types of projects, the TCEQ may place such projects at a lower priority for funding or choose not to fund such a project, based on the risks that the project will not achieve the projected emissions reductions.

### **5.3 CALCULATION OF NO<sub>x</sub> EMISSIONS REDUCTIONS**

For this RFGA a primary selection factor will be the amount of NO<sub>x</sub> emissions reductions projected to be achieved by the project in the eligible counties. In addition, the TCEQ will use the NO<sub>x</sub> emissions reductions for credit and other purposes associated with the state implementation plan (SIP). The SIP is the plan developed by the TCEQ and regional and local entities for submission to and approval by the EPA to explain the strategies and programs that will be implemented to bring the nonattainment areas into compliance with the federal Clean Air Act Standards.

- a. Default annual mileage rates will be used for each weight classification of vehicle, based on average mileage rates derived from inputs used for MOBILE6, the on-road emissions modeling program used by the TCEQ. The calculations will be based on operation of the grant-funded vehicles for either 25, 50, or 75 percent of the annual mileage in the eligible counties, as marked in the application.
- b. Baseline NO<sub>x</sub> emission rates for the vehicles being replaced will be the NO<sub>x</sub> emissions standard to which the vehicle or engine is certified, based on the standards applicable to that classification and model year of vehicle or engine. The NO<sub>x</sub> emissions of the vehicle being purchased will be based on the certified NO<sub>x</sub> emissions rate of that vehicle and/or engine.
- c. The methodology and information that the TCEQ will use to calculate the NO<sub>x</sub> emissions reductions for each project are provided in Appendix A. Directions are provided to assist applicants in calculating the NO<sub>x</sub> emissions reductions. However, applicants are not required to perform the calculations in order to apply for a grant.

## **6.0 APPLICATION REVIEW AND SELECTION PROCESS**

### **6.1 APPLICATION REVIEW**

The TCEQ will review the applications and, to the extent time allows, will notify applicants of any needed changes or additional information. However, the TCEQ is not obligated to wait for additional information or needed changes to be provided before making the grant selection decisions.

### **6.2 PROJECT SELECTION**

- a. Properly completed applications for eligible projects will be evaluated, scored, and ranked.
- b. The TCEQ will work with applicants, to the extent possible, to correct problems with applications and to obtain all necessary information and documentation in order to consider the application complete. However, the amount of time available for correction of applications will be limited, and the TCEQ is not obligated to wait for all corrections to be completed before making the grant selections.
- c. The TCEQ may also consider applications for selection pending receipt of all needed information or documentation and may include provisions in a grant contract making the issuance of a “Notice to Proceed” contingent upon receipt of the additional information.

### **6.3 GRANT AWARD AND CONTRACTING**

An example contract shell will be made available on the TERP web site. Successful applicants will be notified by phone or other means of their selection and the amount of grant funds that may be awarded. At that time, the applicant will need to confirm to the TCEQ if the applicant intends to accept the grant. A grant contract will be developed and provided to the applicant to sign and return to the TCEQ. Upon signature and execution of the contract by the TCEQ, a copy of the signed contract will be returned to the applicant, at which time the grant will be considered awarded.

### **6.4 NOTICE TO PROCEED**

- a. The execution of a contract will not be the final commitment by TCEQ to provide the funds. A subsequent Notice to Proceed (NTP) will be issued to the grant recipient when sufficient funds become available, and any eligible expenses incurred prior to receipt of the notice will be at the grant recipient’s own risk. The NTP may also include authorization for a lesser reimbursement amount than originally approved in the contract, based on the amount of funds available.
- b. The TCEQ may also make issuance of a NTP contingent upon receiving any additional documentation and information that may be needed from the applicant, including inspection by TCEQ of a vehicle and engine to be replaced under the grant to verify information and the condition of the vehicle or engine.

## **6.5 CONTRACT TERM**

For purposes of funding and fulfillment of the TCEQ's obligations to provide reimbursement under the grant, the contract will terminate on a specified date. However, in signing a contract the grant recipient will need to agree with and obligate to commitments for use of the grant-funded vehicles and for achieving emissions reductions for the life of each activity, which will extend beyond the termination date of the contract.

## **7.0 CONSIDERATION OF APPLICATION IN FUTURE GRANT ROUNDS**

The TCEQ may, at its discretion, retain applications not selected for funding under this RFGA for consideration under a new RFGA issued for a future grant round. Applicants will be notified by the TCEQ if their application is retained for consideration under a future grant round and will be given the option of withdrawing their application from consideration.

# APPENDIX A

## Summary

This appendix contains instructions for determining the emissions of nitrogen oxides (NO<sub>x</sub>) and calculating the NO<sub>x</sub> emissions reductions for the replacement of on-road light-duty or heavy-duty diesel motor vehicles under the Texas Clean Fleet Program (TCFP).

Applicants are not required to calculate the NO<sub>x</sub> emissions reductions and cost per ton of NO<sub>x</sub> reduced. However, it is recommended that applicants perform these calculations to have an idea of the score the project may be assigned in the selection process.

The steps in this appendix are generally the same steps that will be used by the TCEQ to determine the NO<sub>x</sub> emissions reductions and the cost per ton of the project. However, where more specific information on emissions and emissions rates are available, the TCEQ may use that information regardless of the standards listed in this appendix.

The calculations are divided into the five main steps listed below.

- Step 1: Determine the baseline and reduced NO<sub>x</sub> emission factors.
- Step 2: Determine if the activity meets a 25% NO<sub>x</sub> emissions reduction requirement.
- Step 3: Convert to grams per mile (g/mile)
- Step 4: Calculate the NO<sub>x</sub> emissions reductions.
- Step 5: Calculate the Cost Per Ton.

These steps are explained in the following instructions. Use the worksheet provided at the end of this appendix (TCFP-1) and the following instructions to complete each step.

### **Step 1: Determine the baseline and reduced NO<sub>x</sub> emissions.**

The emissions standards are established according to weight classifications, with California using a different classification system for medium-duty vehicles. The federal light-duty classifications established by the U.S. Environmental Protection Agency (EPA) are presented in Table A.1. The EPA heavy-duty vehicle classifications are presented in Table A.2. The California medium-duty classifications used by the California Air Resources Board (CARB) are presented in Table A.3.

**Table A.1 EPA Light-Duty Vehicle Classifications**

LDV	Light-Duty Vehicle	Passenger Car
LDT1	Light-Duty Truck 1	Truck up to 6000 pounds GVWR and 3750 pounds LVW
LDT2	Light-Duty Truck 2	Truck up to 6000 pounds GVWR, and between 3751 and 5750 pounds LVW
LDT3	Light-Duty Truck 3	Truck between 6001 and 8500 pounds GVWR, and between 3751 and 5750 pounds ALVW
LDT4	Light-Duty Truck 4	Truck between 6001 and 8500 pounds GVWR, and over 5750 pounds ALVW
<b>Revised EPA light truck categories for 2004 and later vehicles</b>		
LLDT	Light Light-Duty Truck	Truck up to 6000 pounds GVWR; includes LDT1 and LDT2
HLDT	Heavy Light-Duty Truck	Truck between 6001 and 8500 pounds GVWR; includes LDT3 and LDT4
MDPV	Medium-Duty Passenger Vehicle	Vehicle between 8501 and 10,000 lbs GVWR used primarily for passengers

**Table A.2 EPA Heavy-Duty Vehicle Classifications**

HDDV2b	Heavy-Duty Diesel Vehicle 2b	Vehicle between 8501 and 10,000 lbs GVWR
HDDV3	Heavy-Duty Diesel Vehicle 3	Vehicle between 10,001 and 14,000 lbs GVWR
HDDV4	Heavy-Duty Diesel Vehicle 4	Vehicle between 14,001 and 16,000 lbs GVWR
HDDV5	Heavy-Duty Diesel Vehicle 5	Vehicle between 16,001 and 19,500 lbs GVWR
HDDV6	Heavy-Duty Diesel Vehicle 6	Vehicle between 19,501 and 26,000 lbs GVWR
HDDV7	Heavy-Duty Diesel Vehicle 7	Vehicle between 26,001 and 33,000 lbs GVWR
HDDV8a	Heavy-Duty Diesel Vehicle 8a	Vehicle between 33,001 and 60,000 lbs GVWR
HDDV8b	Heavy-Duty Diesel Vehicle 8b	Vehicle between Greater than 60,000 lbs GVWR
HDDBT	Heavy-Duty Diesel Vehicle	Diesel Transit or Urban Buses
HDDBS	Heavy-Duty Diesel Vehicle	Diesel School Buses

**Table A.3 California Medium-Duty Vehicle Classifications**

MDV1	Medium-Duty Vehicle 1	For California standards, an MDV up to 3750 pounds ALVW
MDV2	Medium-Duty Vehicle 2	For California standards, an MDV between 3751 and 5750 pounds ALVW
MDV3	Medium-Duty Vehicle 3	For California standards, an MDV between 5751 and 8500 pounds ALVW
MDV4	Medium-Duty Vehicle 4	For California standards, an MDV between 8501 and 10,000 pounds ALVW
MDV5	Medium-Duty Vehicle 5	For California standards, an MDV between 10,001 and 14,000 pounds ALVW

The EPA and California light-duty and medium-duty NO<sub>x</sub> emission standards are presented in Tables A.4-A.8 in grams per mile (g/mile).

The EPA's light-duty vehicle emission standards are numerical limits for the various air pollutants allowed by the standards. The EPA emission standards fall into three Tier levels: Tier 0, Tier 1, and Tier 2. Vehicles of model year 2004 and later will also be certified according to an emission standard category, or Bin, as listed in Table A.4.

California light-duty vehicle emission standards are similar to the EPA light-duty vehicle emission standards but are not exactly the same. These standards were established under Low Emission Vehicle (LEV) levels known as LEV I and LEV II. For the 2008 model year, the following northeastern states have also adopted the California LEV II emission standards: NY, ME, MA, PA, RI, CT, VT. Under California LEV I and LEV II standards, vehicles are certified according to vehicle emissions standard categories, as listed in Tables A.7 and A.8.

**Table A.4 EPA Tier 2 Light-Duty Vehicle Emission Standards**

<b>Emission Standard Category</b>	<b>Model Year</b>	<b>Vehicle Classification</b>	<b>NO<sub>x</sub> (g/mile)</b>
Bin 1	2004+	LDV, LLDT, HLDT, MDPV	0.00
Bin 2	2004+	LDV, LLDT, HLDT, MDPV	0.02
Bin 3	2004+	LDV, LLDT, HLDT, MDPV	0.03
Bin 4	2004+	LDV, LLDT, HLDT, MDPV	0.04
Bin 5	2004+	LDV, LLDT, HLDT, MDPV	0.07
Bin 6	2004+	LDV, LLDT, HLDT, MDPV	0.10
Bin 7	2004+	LDV, LLDT, HLDT, MDPV	0.15
Bin 8a	2004+	LDV, LLDT, HLDT, MDPV	0.20
Bin 8b	2004-2008	HLDT, MDPV	0.20
Bin 9a	2004-2006	LDV, LLDT	0.30
Bin 9b	2004-2006	LDT2	0.30
Bin 9c	2004-2008	HLDT, MDPV	0.30
Bin 10a	2004-2006	LDV, LLDT	0.60
Bin 10b	2004-2008	HLDT, MDPV	0.60
Bin 10c	2004-2008	LDT4, MDPV	0.60
Bin 11	2004-2008	MDPV	0.90

**Table A.5 EPA Tier 1 Light-Duty Vehicle Emission Standards**

<b>Model Year</b>	<b>Vehicle Classification</b>	<b>NO<sub>x</sub> (g/mile)</b>
1994-2003	LDV	0.6
1994-2003	LDT1	0.6
1994-2003	LDV diesel	1.25
1994-2003	LDT1 diesel	1.25
1994-2003	LDT2	0.97
1994-2003	LDT3	0.98
1994-2003	LDT4	1.53

**Table A.6 EPA Tier 0 and Historical Light-Duty Vehicle Emission Standards**

<b>Cars</b>		
<b>Model Year</b>	<b>Vehicle Classification</b>	<b>NO<sub>x</sub> (g/mile)</b>
1987-1993	LDV	1.0
1985-1986	LDV	1.0
1984	LDV	1.0
1983	LDV	1.0
1982	LDV	1.0
1981	LDV	1.0
1980	LDV	2.0
1978-1979	LDV	2.0
1977	LDV	2.0
1975-1976	LDV	3.1
1973-1974	LDV	3.0
pre-1968	LDV	3.5
<b>Trucks</b>		
1988-1993	LDT1	1.2
1988-1993	LDT2-4	1.7
1987	LDT	2.3
1984-1986	LDT	2.3
1982-1983	LDT	2.3
1981	LDT	2.3
1979-1980	LDT	2.3
1978	LDT	3.1
1975-1977	LDT	3.1
1973-1974	LDT	3.0
pre-1968	LDT	3.6

**Table A.7 California LEV II Light-Duty and Medium-Duty Vehicle Emission Standards**

<b>Emission Standard Category</b>	<b>Model Year</b>	<b>Vehicle Classification</b>	<b>NO<sub>x</sub> (g/mile)</b>
ZEV	2004+	LDV, LDT	0.00
PZEV*	2004+	LDV, LDT	0.02
SULEV II	2004+	LDV, LDT	0.02
ULEV II	2004+	LDV, LDT	0.07
LEV II	2004+	LDV, LDT	0.07
LEV II option 1	2004+	LDV, LDT	0.10
SULEV II	2004+	MDV4	0.10
ULEV II	2004+	MDV4	0.20
LEV II	2004+	MDV4	0.20
SULEV II	2004+	MDV5	0.20
ULEV II	2004+	MDV5	0.40
LEV II	2004+	MDV5	0.40

**Table A.8 California LEV I Light-Duty Vehicle Emission Standards**

<b>Emission Standard Category</b>	<b>Model Year</b>	<b>Vehicles</b>	<b>NO<sub>x</sub> (g/mile)</b>
ULEV I diesel	2001-2006	LDV, LDT1	0.30
ULEV I	2001-2006	LDV, LDT1	0.30
SULEV I	2001-2006	MDV2	0.30
LEV I diesel	2001-2006	LDV, LDT1	0.30
LEV I	2001-2006	LDV, LDT1	0.30
ILEV		LDV, LDT1	0.30
ULEV I	2001-2006	MDV2	0.30
LEV I	2001-2006	LDV, LDT1	0.30
SULEV I	2001-2006	MDV3	0.45
ULEV I diesel	2001-2006	MDV2	0.50
ULEV I	2001-2006	MDV2	0.50
SULEV I	2001-2006	MDV4	0.50
ILEV		LDT2	0.50
LEV I diesel	2001-2006	LDT2	0.50
LEV I	2001-2006	LDT2	0.50
ULEV I	2001-2006	MDV2	0.60
TLEV I diesel	2001-2003	LDV, LDT1	0.60
TLEV I	2001-2003	LDV, LDT1	0.60
LEV I	2001-2006	MDV2	0.60
SULEV I	2001-2006	MDV5	0.70
ULEV I	2001-2006	MDV3	0.90
TLEV I diesel	2001-2006	LDT2	0.90
TLEV I	2001-2006	LDT2	0.90
LEV I	2001-2006	MDV3	0.90
ULEV I	2001-2006	MDV4	1.00
LEV I	2001-2006	MDV4	1.00
ULEV I	2001-2006	MDV5	1.50
LEV I	2001-2006	MDV5	1.50

The EPA NO<sub>x</sub> emission standards for heavy-duty diesel engines are presented in Table A.9 in grams per brake horsepower-hour (g/bhp-hr).

**Table A.9 EPA Heavy-Duty Diesel Engine NO<sub>x</sub> Emission Standards by Model Year**

Year of Manufacture	Diesel Engines Emission Standard	
	NO <sub>x</sub> Only (g/bhp-hr)	NO <sub>x</sub> +NMHC (g/bhp-hr)
1989 and earlier	10.7	
1990	6.0	
1991-1997	5.0	
1998-2001	4.0	
2002	4.0	
2003*	4.0	
2004 -2006	2.375	2.5
2007-2009**	2.375 - 0.2	
2010+	0.2	

\*Some manufacturers were producing 2003 engines that met the more stringent 2.375 g/bhp-hr standard, as a result of a consent decree with the EPA.

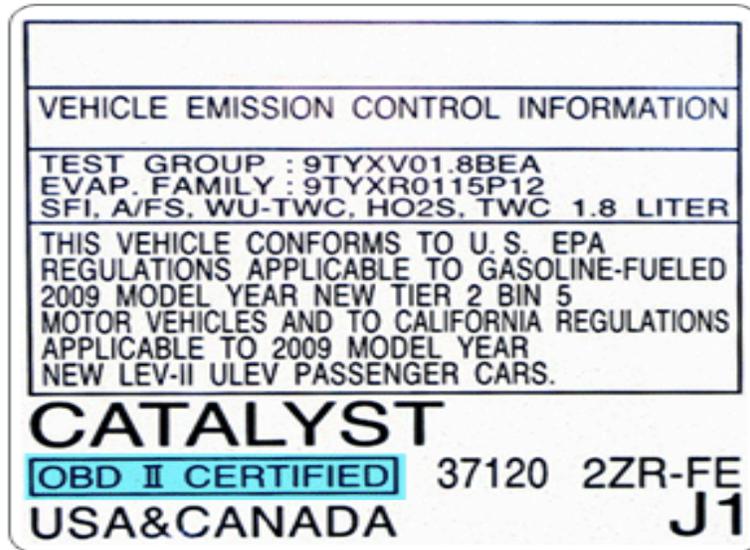
\*\*The NO<sub>x</sub> emission standard for heavy-duty diesel engines was reduced to 0.20 g/bhp-hr under a phase-in approach between 2007 and 2010. Manufacturers were allowed to phase in their compliance with this new standard over a three-year period.

The current (2010+) NO<sub>x</sub> emissions standard for alternative fuel heavy-duty vehicle engines is also 0.2 g/bhp-hr.

For some model years, the EPA used a combined NO<sub>x</sub> + NMHC (non-methane hydrocarbons) standard. For the standards listed in NO<sub>x</sub> + NMHC, the TCEQ will use a NO<sub>x</sub> fraction of 0.95 for diesel engines to determine the NO<sub>x</sub>-only emissions based on the combined standard.

To determine the applicable NO<sub>x</sub> emissions factor for the vehicle being replaced, applicants should look on the vehicle or engine emissions label to determine the emissions model year and the standards to which the vehicle or engine was certified. Many light-duty vehicles will refer to both the EPA and California certification standards and, where applicable, the emission standard category. **Where those standards differ, the lowest NO<sub>x</sub> emissions rate will apply and should be listed in the application.** In most cases where the standards differ, the California standards will be lower. A picture of the emissions label on the vehicle/engine being replaced should also be provided with the application.

An example of a light-duty vehicle emission label



Vehicle : LDV

Engine model year: 2009

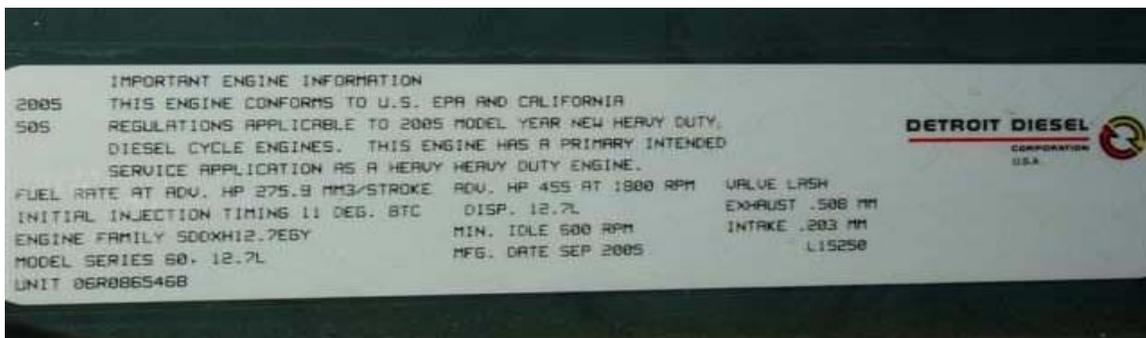
Test group: 9TYXV01.8BEA

US EPA Federal light-duty vehicle emission certification standards: Tier 2 Bin 5

California light-duty vehicle exhaust emission standards: LEVII

Certified NOx emission standard: 0.07 g/mile

An example of a heavy-duty diesel engine emission label



Engine: Heavy-duty diesel engine

Engine model year: 2005

Engine family: 5DDXH12.7EGY

Certified NOx emission standard: 2.375 g/bhp-hr

### **Determining the emissions of the vehicle being replaced**

For the NO<sub>x</sub> emissions of the vehicle or engine being replaced, the standard listed in the tables above for that category of vehicle may be used in the calculations. If a particular vehicle is certified under both the EPA and California standards, the lower of the two standards should be used.

Also, some vehicles or engines may be certified to a different emissions rate than the standard applicable to the model year of the vehicle or engine. Those vehicles or engines will be assigned a Family Emissions Limit (FEL). The certified FEL emissions level may be listed on the emissions label. The FEL emissions rate should be used for the calculations.

A twelve-digit vehicle test group number (light-duty vehicle) or engine family code (heavy-duty engine) is assigned to the vehicle or engine. The vehicle test group or engine family is printed on the engine emissions label. This number is assigned by EPA and CARB when testing and certifying the emission of a light-duty vehicle model or heavy-duty engine family. The test group or engine family code should be entered into the application.

Applicants may also use this number to look up the information at the EPA and/or CARB engine certification web sites to confirm the emissions certification and whether the vehicles or engines were certified to an alternative FEL:

- a. EPA - [www.epa.gov/otaq/hwy.htm](http://www.epa.gov/otaq/hwy.htm)
- b. CARB - [www.arb.ca.gov/msprog/onroad/cert/cert.php](http://www.arb.ca.gov/msprog/onroad/cert/cert.php)

However, the information on these sites is not easily accessible. Unless the TCEQ determines that the vehicle is certified to a FEL, the applicable emissions standards will be used for the baseline emission rate for the calculation of emissions reductions.

### **Determining the emissions of the new vehicle**

Applicants should obtain emissions certification information from the dealer for the new vehicle and engine being purchased.

For light-duty alternative fuel and hybrid vehicles, the vehicle must be certified to one of the EPA Tier 2 bin levels listed in Table A.4. In addition, if the vehicle is also certified by CARB, it should have a CARB LEV II certification. The engine may also be certified to a Family Emissions Limit (FEL) lower than the current standard, but not higher. The lower of the certified emission rates in g/mile should be used for the calculations.

For heavy-duty engines, the engine must be certified to the current federal NO<sub>x</sub> emissions standard or less.

All-electric vehicles and some hydrogen-powered vehicles and engines may have zero NO<sub>x</sub> emissions.

In reviewing the grant applications, the TCEQ will confirm the applicable emissions rate, based on the test group number or engine family code.

**Step 2: Determine if the activity meets the 25 percent NO<sub>x</sub> emissions reduction requirement.**

The replacement vehicle/engine must be certified to a NO<sub>x</sub> emission rate that is at least a 25 percent less than the certified NO<sub>x</sub> emissions rate of the vehicle/engine being replaced. Use Worksheet TCFP-1 to determine if your activity meets the minimum emission reduction requirements. Provided below are examples of the calculations used to determine if an activity meets a 25 percent reduction in NO<sub>x</sub> emissions.

$$\frac{(\text{Baseline Engine} - \text{Reduced Engine})}{\text{Baseline Engine}} \times 100 = \text{Baseline Emission Rate Reduction (\%)}$$

**Example calculation for determining 25% baseline emission rate reduction for replacements**

**Activity:** Replacement of a 1988 heavy-duty vehicle with a 2010 CNG model.

**Original engine emission standard:** 10.7 g/bhp-hr

**Replacement engine emission standard:** .2 g/bhp-hr

**Calculation of baseline emission rate reduction:**

$$[(10.7 \text{ g/bhp-hr} - 0.2 \text{ g/bhp-hr}) \div 10.7 \text{ g/bhp-hr}] \times 100 = 98.13 \text{ \% baseline emission rate reduction}$$

*Note: This activity would meet the 25% baseline emission rate reduction.*

**Example calculation for determining 25% baseline emission rate reduction for replacements**

**Activity:** Replacement of a 1981 light-duty truck with a 2005 Tier 2 Bin 3 model.

**Original engine emission standard:** 2.3 g/mile

**Replacement engine emission standard:** 0.03 g/mile

**Calculation of baseline emission rate reduction:**

$$[(2.3 \text{ g/mile} - 0.03 \text{ g/mile}) \div 2.3 \text{ g/mile}] \times 100 = 98.7 \text{ \% baseline emission rate reduction}$$

*Note: This activity would meet the 25% baseline emission rate reduction.*

**Step 3: Convert to grams per mile (g/mile)**

For light-duty vehicles, the NO<sub>x</sub> emissions are certified in grams per mile (g/mile). This is the factor used in the calculations of emissions reductions, based on the annual number of miles traveled.

However, the NO<sub>x</sub> emissions of heavy-duty engines are certified in grams per brake horsepower-hour (g/bhp-hr). In order to perform the emissions reduction calculations, the emissions rate in g/bhp-hr must be converted to g/mile. Conversion factors in bhp-hr/mile are provided in Table 4.1, by model year. If the certification is in g/bhp-hr, the NO<sub>x</sub> emission rate must be multiplied by this factor to convert to g/mile.

**Table A.10 Conversion Factors by Model Year**

Vehicle Class – MDPV, MDV4, and HDD2b Medium/Heavy-Duty Diesel Vehicles (8,501-10,000 lbs GVWR)		Vehicle Class – MDV5 and HDDV3 Medium/Heavy-Duty Diesel Vehicles (10,001-14,000 lbs GVWR)		Vehicle Class – HDDV4 Heavy-Duty Diesel Vehicles (14,001-16,000 lbs GVWR)		Vehicle Class – HDDV5 Heavy-Duty Diesel Vehicles (16,001-19,500 lbs GVWR)	
Model Year	Conversion Factor (bhp-hr/mi)	Model Year	Conversion Factor (bhp-hr/mi)	Model Year	Conversion Factor (bhp-hr/mi)	Model Year	Conversion Factor (bhp-hr/mi)
2012	1.09	2012	1.46	2012	1.57	2012	1.25
2011	1.09	2011	1.46	2011	1.57	2011	1.25
2010	1.09	2010	1.46	2010	1.57	2010	1.25
2009	1.09	2009	1.46	2009	1.57	2009	1.25
2008	1.09	2008	1.46	2008	1.57	2008	1.25
2007	1.09	2007	1.46	2007	1.57	2007	1.25
2006	1.09	2006	1.46	2006	1.57	2006	1.25
2005	1.09	2005	1.46	2005	1.57	2005	1.25
2004	1.09	2004	1.46	2004	1.57	2004	1.25
2003	1.09	2003	1.46	2003	1.57	2003	1.25
2002	1.09	2002	1.46	2002	1.57	2002	1.25
2001	1.09	2001	1.46	2001	1.57	2001	1.25
2000	1.09	2000	1.46	2000	1.57	2000	1.25
1999	1.09	1999	1.46	1999	1.57	1999	1.25
1998	1.09	1998	1.46	1998	1.57	1998	1.25
1997	1.09	1997	1.46	1997	1.57	1997	1.25
1996	1.09	1996	1.46	1996	1.57	1996	1.25
1995	1.09	1995	1.46	1995	1.59	1995	1.25
1994	1.09	1994	1.47	1994	1.60	1994	1.25
1993	1.09	1993	1.47	1993	1.61	1993	1.25
1992	1.10	1992	1.48	1992	1.62	1992	1.25
1991	1.10	1991	1.48	1991	1.64	1991	1.25
1990	1.10	1990	1.49	1990	1.65	1990	1.25
1989	1.10	1989	1.49	1989	1.66	1989	1.25
1988	1.10	1988	1.50	1988	1.68	1988	1.25
1987	0.92	1987	1.76	1987	1.76	1987	1.76
1986	0.92	1986	1.76	1986	1.76	1986	1.76
1985	0.92	1985	1.76	1985	1.76	1985	1.76
1984	0.92	1984	1.76	1984	1.76	1984	1.76
1983	0.92	1983	1.76	1983	1.76	1983	1.76
1982	0.92	1982	1.76	1982	1.76	1982	1.76
1981	0.94	1981	1.76	1981	1.76	1981	1.76
1980	0.94	1980	1.76	1980	1.76	1980	1.76

**Table A.10 (continued)**

Vehicle Class – HDDV6 Heavy-Duty Diesel Vehicles (19,501-26,000 lbs GVWR)		Vehicle Class – HDDV7 Heavy-Duty Diesel Vehicles (26,001-33,000 lbs GVWR)		Vehicle Class – HDDV8a Heavy-Duty Diesel Vehicles (33,001-60,000 lbs GVWR)		Vehicle Class – HDDV8b Heavy-Duty Diesel Vehicles (Greater than 60,000 lbs GVWR)	
Model Year	Conversion Factor (bhp-hr/mi)	Model Year	Conversion Factor (bhp-hr/mi)	Model Year	Conversion Factor (bhp-hr/mi)	Model Year	Conversion Factor (bhp- hr/mi)
2012	1.94	2012	2.76	2012	3.03	2012	2.41
2011	1.94	2011	2.76	2011	3.03	2011	2.41
2010	1.94	2010	2.76	2010	3.03	2010	2.41
2009	1.94	2009	2.76	2009	3.03	2009	2.41
2008	1.94	2008	2.76	2008	3.03	2008	2.41
2007	1.94	2007	2.76	2007	3.03	2007	2.41
2006	1.94	2006	2.76	2006	3.03	2006	2.41
2005	1.94	2005	2.76	2005	3.03	2005	2.41
2004	1.94	2004	2.76	2004	3.03	2004	2.41
2003	1.94	2003	2.76	2003	3.03	2003	2.41
2002	1.94	2002	2.76	2002	3.03	2002	2.41
2001	1.94	2001	2.76	2001	3.03	2001	2.41
2000	1.94	2000	2.76	2000	3.03	2000	2.41
1999	1.94	1999	2.76	1999	3.03	1999	2.41
1998	1.94	1998	2.76	1998	3.03	1998	2.41
1997	1.94	1997	2.76	1997	3.03	1997	2.41
1996	1.94	1996	2.76	1996	3.03	1996	2.41
1995	1.95	1995	2.78	1995	3.06	1995	2.41
1994	1.95	1994	2.81	1994	3.09	1994	2.41
1993	1.96	1993	2.83	1993	3.11	1993	2.40
1992	1.96	1992	2.85	1992	3.14	1992	2.40
1991	1.96	1991	2.87	1991	3.17	1991	2.40
1990	1.97	1990	2.90	1990	3.20	1990	2.40
1989	1.97	1989	2.92	1989	3.23	1989	2.39
1988	1.98	1988	2.95	1988	3.26	1988	2.39
1987	1.87	1987	2.99	1987	3.13	1987	2.13
1986	1.87	1986	2.99	1986	3.13	1986	2.13
1985	1.88	1985	3.01	1985	3.14	1985	2.14
1984	1.89	1984	3.04	1984	3.14	1984	2.16
1983	1.91	1983	3.06	1983	3.15	1983	2.18
1982	1.93	1982	3.09	1982	3.15	1982	2.19
1981	1.99	1981	3.11	1981	3.26	1981	2.23
1980	2.06	1980	3.06	1980	3.33	1980	2.25

**Table A.10 (continued)**

Vehicle Class - HDDBT Heavy-Duty Diesel Vehicles (Diesel Transit or Urban Bus)		Vehicle Class - HDDBS Heavy-Duty Diesel Vehicles (Diesel School Buses)	
Model Year	Conversion Factor (bhp- hr/mi)	Model Year	Conversion Factor (bhp- hr/mi)
2012	4.03	2012	2.99
2011	4.03	2011	2.99
2010	4.03	2010	2.99
2009	4.03	2009	2.99
2008	4.03	2008	2.99
2007	4.03	2007	2.99
2006	4.03	2006	2.99
2005	4.03	2005	2.99
2004	4.03	2004	2.99
2003	4.03	2003	2.99
2002	4.03	2002	2.99
2001	4.03	2001	2.99
2000	4.03	2000	2.99
1999	4.03	1999	2.99
1998	4.03	1998	2.99
1997	4.03	1997	2.99
1996	4.03	1996	2.99
1995	4.02	1995	2.93
1994	4.02	1994	2.88
1993	4.02	1993	2.82
1992	4.01	1992	2.77
1991	4.01	1991	2.71
1990	4.01	1990	2.70
1989	4.01	1989	2.69
1988	4.01	1988	2.67
1987	3.07	1987	1.62
1986	3.07	1986	1.62
1985	3.07	1985	1.62
1984	3.07	1984	1.62
1983	3.07	1983	1.62
1982	3.07	1982	1.62
1981	3.01	1981	1.61
1980	2.91	1980	1.60

Provided below are examples of the calculations used to convert g/bhp-hr to g/mile.

**Example calculation for converting g/bhp-hr to g/mile.**

**Activity:** Replacement of a 1987 heavy-duty vehicle with a 2010 CNG model.

**Vehicle weight rating:** 80,000 lbs.

**Original engine emission standard:** 10.7 g/bhp-hr

**Replacement engine emission standard:** 0.2 g/bhp-hr

**Original engine conversion factor:** 3.13 bhp-hr/mi

**Replacement engine conversion factor:** 3.03 bhp-hr/mi

**Baseline NO<sub>x</sub> Emission Factor converted to g/mile**

10.7 g/bhp-hr x 3.13 bhp-hr/mi = 33.491 g/mile

**Reduced NO<sub>x</sub> Emission Factor g/mile**

0.2 g/bhp-hr x 3.03 bhp-hr/mi = 0.606 g/mile

**Example calculation for converting g/bhp-hr to g/mile.**

**Activity:** Replacement of a 1985 heavy-duty vehicle with a 2010 MDPV model.

**Vehicle weight rating:** 9,000 lbs.

**Original engine emission standard:** 10.7 g/bhp-hr

**Replacement vehicle emission standard:** 0.07 g/mile

**Original engine conversion factor:** 0.92 bhp-hr/mi

**Baseline NO<sub>x</sub> Emission Factor converted to g/mile**

10.7 g/bhp-hr x 0.92 bhp-hr/mi = 9.844 g/mile

**Reduced NO<sub>x</sub> Emission Factor g/mile**

0.07 g/mile

*Note: Since the reduced NO<sub>x</sub> emission factor was already in g/mile, a conversion calculation did not need to be performed.*

**Step 4: Calculate the NO<sub>x</sub> emissions reductions**

The calculation of the NO<sub>x</sub> emissions reductions and cost per ton of NO<sub>x</sub> reduced is dependent upon the miles of operation of the vehicle. The TCEQ will use default annual mileage for each class of vehicle to perform the calculations. The default mileage is presented in Table A.11.

**Table A.11 Default Mileage**

Vehicle Class	Default Miles
LDV	10,728
LDT 1, 2, 3, and 4	15,769
MDPV, MDV4, and HDV2b (8,501-10,000 lb GVWR)	15,942
MDV5 and HDV3 (10,001-14,000 lb GVWR)	16,946
HDV4 (14,001-16,000 lb GVWR)	21,560
HDV5 (16,001-19,500 lb GVWR)	22,384
HDV6 (19,501-26,000 lb GVWR)	22,583
HDV7 (26,001-33,000 lb GVWR)	21,963
HDV8a (33,001-60,000 lb GVWR)	42,144
HDV8b (Greater than 60,000 lb GVWR)	65,562
HDBT (Transit or Urban Bus)	39,196
HDBS (School Bus)	11,182

Also, for diesel vehicles and engines, a correction factor must be included in the calculation to account for the use of Texas Low Emission Diesel (TxLED) in the eligible counties. The TxLED correction factor for on-road vehicles is 0.943.

**Step 5: Calculate the Cost Per Ton**

The cost per ton for an activity is then determined by dividing the requested grant amount for that activity by the total NO<sub>x</sub> emission reductions for that activity. Use Worksheet TCFP-1 to calculate the cost per ton. Provided below is an example of the calculation used to calculate the cost per ton.

**Example calculation for NO<sub>x</sub> emission reductions and cost per ton.**

**Activity:** Replacement of a 1988 heavy-duty vehicle with a 2010 CNG model.  
**Requested grant amount:** \$40,000  
**Vehicle weight rating:** 80,000 lbs.  
**Baseline NO<sub>x</sub> emission factor:** 33.491 g/mile  
**Reduced NO<sub>x</sub> emission factor:** 0.606 g/mile  
**TxLED Correction factor:** 0.943  
**Default mileage:** 66,562  
**Percent time in eligible counties:** 75%  
 $(33.491 \text{ g/mile} \times 0.943) - 0.606 \text{ g/mile} = 30.976 \text{ g/mile}$   
 $30.976 \text{ g/mile} \times 65,562 \text{ miles} = 2,030,848.5 \text{ grams}$   
 $2,030,848.5 \text{ grams} \times 0.75 = 1,523,136.4 \text{ g/yr}$   
 $1,523,136.4 \text{ g/yr} \div 907,200 \text{ g/tons} = 1.6789 \text{ ton/yr}$   
 $1.6789 \text{ ton/yr} \times 5 \text{ years} = 8.3947 \text{ tons}$   
 $\$40,000 \div 8.3947 \text{ tons} = 4764.90 \text{ \$/ton}$

For multi-activity projects, the cost per ton of the complete project is determined by dividing the requested grant amount for the entire project by the total NO<sub>x</sub> emission reductions for all of the activities included in that project.

$$\text{Requested Grant Amount} \div \text{Total NO}_x \text{ Emission Reductions} = \text{Cost Per Ton of NO}_x \text{ Reduced}$$



## Texas Clean Fleet Program Worksheet TCFP-1

This worksheet is provided to assist applicants to determine the NO<sub>x</sub> emissions reductions and cost per ton of NO<sub>x</sub> reduced by each activity.

### Activity Information

What is the activity life, in years?	5
What is the default mileage for your vehicle	
What is the percent of usage in the eligible counties (total must equal 25%, 50%, or 75%)?	
What is the requested grant amount for the activity?	

### Step 1: Determine the baseline and reduced NO<sub>x</sub> emissions.

#### Baseline Engine Information

Model Year	
Fuel Type	
Gross Vehicle Weight Rating (GVWR)	
Certified Baseline Emission Rate (g/mile) or (g/bhp-hr)	
Conversion Factor (bhp-hr/mi) <small>Note: if the vehicle certification is in g/mile then a conversion factor is not needed</small>	

#### Reduced Emission Engine Information

Model Year	
Fuel Type	
Gross Vehicle Weight Rating (GVWR)	
Certified Reduced Emission Rate (g/mile) or (g/bhp-hr)	
Conversion Factor (bhp-hr/mi) <small>Note: if the vehicle certification is in g/mile then a conversion factor is not needed</small>	

**Step 2: Determine if the activity meets the 25 percent NO<sub>x</sub> emissions reduction requirement.**

Baseline Engine Emissions (g/mile) or (g/bhp-hr)	
- Reduced Engine Emissions(g/mile) or (g/bhp-hr)	
= Difference (g/mile) or (g/bhp-hr)	
÷ Baseline Engine Emissions (g/mile) or (g/bhp-hr)	
x	100
= Emission Rate Reduction (%)	

**Step 3. Convert to grams per mile (g/mile)**

Note: If the vehicle certification is in g/mile then proceed to the next step.

<b>Determine Baseline NO<sub>x</sub> Emission Factor (g/mile)</b>	
baseline engine NO <sub>x</sub> emission standard (g/bhp-hr)	
x conversion factor (bhp-hr/mi)	
= baseline NO <sub>x</sub> emission factor (g/mile)	
<b>Determine Reduced NO<sub>x</sub> Emission Factor (g/mile)</b>	
reduced engine NO <sub>x</sub> emissions standard (g/bhp-hr)	
x conversion factor (bhp-hr/mi)	
=reduced NO <sub>x</sub> emission factor (g/mile)	

### Step 4: Calculate the NO<sub>x</sub> emissions reductions.

baseline NO <sub>x</sub> emission factor (g/mile)	
x TxLED Correction Factor 1-(0.057)	<b>0.943</b>
= corrected NO <sub>x</sub> emission factor (g/mile)	
- reduced NO <sub>x</sub> emission factor (g/mile)	
= grams per mile reduced (g/mile)	
x default annual mileage	
x percent within eligible counties (%) (use the percentage of annual mileage committed to in the application – 25%, 50% or 75%)	
= grams per year reduced (g/yr)	
÷ 907,200 grams per ton	
= estimated annual NO <sub>x</sub> emissions reductions (tons/yr)	
x activity life (years)	<b>5</b>
= estimated activity life NO <sub>x</sub> emissions reductions (tons)	

### Step 5: Calculate the Cost Per Ton

requested grant amount for activity (\$):	
÷ NO <sub>x</sub> emissions reduction (tons):	
= activity cost per ton (\$/ton)	

The cost per ton of the complete project is determined by dividing the requested grant amount for the entire project by the total NO<sub>x</sub> emission reductions for all of the activities included in that project.

$$\text{Requested Grant Amount} \div \text{Total Project NO}_x \text{ Emissions Reductions} = \text{Cost Per Ton of NO}_x \text{ Reduced}$$