

APPENDIX A

**INSTRUCTIONS FOR DETERMINING
THE MAXIMUM REBATE GRANT AMOUNT**

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Instructions are provided below for using the tables provided in Appendix C and D to determine the maximum rebate grant amount available for a proposed project. Please refer to Appendix C for on-road vehicle projects and Appendix D for non-road equipment projects.

On-Road Vehicles (Appendix C)

Step 1. Determine the Gross-Vehicle Weight Rating (GVWR) of the Vehicle

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 may also be listed on the vehicle title and registration documents. If the manufacturer's GVWR is higher than the legal weight limits allowed in Texas, then the legal weight must be used.

If the vehicle is normally operated in combination with a trailer on a permanent basis, such as an 18-wheel semi-tractor and trailer rig, then use the combined GVWR of both the vehicle and the trailer. However, if a trailer is only attached occasionally, use the GVWR for the vehicle only. Check with TCEQ staff if you are unsure as to what GVWR to use.

Step 2. Determine the Percentage of Use

For on-road vehicles, the applicant must designate in the application the percentage of the annual mileage that will occur in the eligible counties listed in the application, which may not be less than 25 percent of the annual mileage. In addition to the percentage of annual miles in the eligible counties committed to by the applicant, the applicant must also commit to operating the vehicle at least 75 percent of the annual miles in a combination of the eligible counties and on one or more of the highways or roadways designated below.

- Interstate Highway 10 from the Texas-New Mexico border to the Texas-Louisiana border
- Interstate Highway 20 from Interstate Highway 10 to the Texas-Louisiana border
- Interstate Highway 30 from Rockwall County to the Texas-Arkansas
- Interstate Highway 35 from the Texas/Mexico border to the Texas-Oklahoma border
- Interstate Highway 37 from the Gulf of Mexico to Bexar County
- Interstate Highway 45 from the Montgomery County to Ellis County
- U.S. Highway 59 from the Texas/Mexico border to the Texas-Arkansas border
- U.S. Highway 79 from the Williamson County to the Texas-Louisiana border
- U.S. Highway 281 from the Texas-Mexico border to the Texas-Oklahoma border
- U.S. Highway 77 from the Texas-Mexico border to Ellis County
- U.S. Highway 290 from the Interstate Highway 10 to Waller County

Step 3. Find the Rebate Grant Table for that GVWR and Percentage of Use in the Eligible Counties

The tables in Appendix C are listed by weight categories. Different tables are provided for each weight category. In addition, three tables are provided under each weight category based on the percentage of use commitment. Tables are provided showing the maximum funding amounts for use in the eligible counties of 25-49 percent, 50 to 74 percent, and 75 to 100 percent of the annual miles for that vehicle. The applicant must use the table applicable to the weight category of the vehicle and the percentage of use commitment chosen. Note that you may not replace a vehicle from one weight category with a vehicle from another weight category.

Step 4. Determine the Model Year of the Vehicle and Engine Being Purchased

You must know the model year of your current vehicle and engine. If the original engine was replaced with a later model year engine, use the model year of the engine and not the year of the vehicle itself.

On-road heavy duty engines are certified by the U.S. Environmental Protection Agency (EPA) to meet federal nitrogen oxides (NO_x) emission standards established by year. The standards are usually expressed in grams per brake horsepower hour (g/bhp-hr) of NO_x. Normally, an engine will be certified to meet the emission standard applicable to the year in which the engine was manufactured. However, there are exceptions to this approach as listed below.

- a. Some manufacturers were required under a consent decree with the EPA to begin manufacturing on-road heavy-duty diesel engines meeting 2004 emission standards early, beginning in 2002 or 2003. For the rebate grants program, it will be assumed that 2002 or 2003 model year vehicles and engines purchased to replace an older vehicle or engine meet the 2002 or 2003 EPA standards.
- b. Beginning in 2007, manufacturers of on-road heavy duty diesel engines were required to begin a phase-in period for compliance with a new federal NO_x emission standard of 0.2 g/bhp-hr. From 2007 through 2009, manufacturers must have averaged 1.2 g/bhp-hr across the range of engines sold. The standard for engines manufactured in 2010 is 0.2 g/bhp-hr, **although not all 2010 engines will meet this standard**. The rebate grant application requires that you provide an engine family code and/or the certified emission rate of the engine.
- c. The maximum rebate grant tables list options for 2007 and beyond on-road engine certifications. If you are unable to determine that the engine is certified to a lower emission rate, the rebate grant amount corresponding to an emissions rate of 2.375 g/bhp-hr may be used. If you have confirmed that the engine is certified to a lower NO_x emission rate, use the rebate grant amount corresponding to the range of emission rates corresponding to the certified emissions rate of that engine.
- d. If you are purchasing a natural gas or propane vehicle or engine, that engine must be certified to the current EPA NO_x emission standard 0.2 g/bhp-hr or lower. You must confirm that the engine is certified to the current standards and choose the corresponding line on the applicable rebate grant table.

Step 5. Determine the Maximum Rebate Grant Amount

Once you have selected the table in Appendix C applicable to the weight category of your vehicle and the percentage of use in the eligible counties, find the column that applies to the year of the vehicle and/or engine being replaced. Go down that column to the line corresponding to the year and emissions rate of the vehicle and/or engine being purchased.

Note the maximum rebate grant amount listed for that combination of old and replacement vehicle and/or engine.

Non-Road Equipment (Appendix D)

Step 1. Select either a 5-year or 7-year activity life.

The grant recipient must agree to monitor the use of grant-funded vehicle or equipment for the designated Activity Life. For this program, an applicant must choose in the application form an Activity Life of either 5 or 7 years. The maximum rebate grant amount table corresponding to the Activity Life chosen must be used to determine the grant amount. The Activity Life is the period of time (in years) used to calculate the amount of NO_x emissions reductions that will be achieved through the use of the grant-funded vehicle or equipment.

Step 2. Find the Rebate Grant Table for the Equipment Type and Activity Life

The tables in Appendix D correspond to an Activity Life of 5 years, while Appendix E includes the tables corresponding to a 7-year Activity Life. A different table is provided for each type of equipment eligible for funding under this program. Find the table corresponding to the selected Activity Life and your equipment type. Note that you may not replace one type of equipment with another type. The types of equipment eligible for a rebate grant are listed below

| SCC Code | Description |
|------------|---------------------------|
| 2270002036 | excavators |
| 2270002045 | cranes |
| 2270002048 | graders |
| 2270002051 | off-highway trucks |
| 2270002054 | crushing/proc. equipment |
| 2270002057 | rough terrain forklifts |
| 2270002060 | rubber tire loaders |
| 2270002063 | rubber tire dozers |
| 2270002066 | tractors/loaders/backhoes |
| 2270002069 | crawler tractors |
| 2270002072 | skid steer loaders |
| 2270002075 | off-highway tractors |
| 2270003020 | forklifts |
| 2270003070 | terminal tractors |
| 2270005015 | agricultural tractors |
| 2270005020 | combines |

Step 3. Determine the Horsepower of the Equipment

You must know the horsepower of your current equipment engine and the horsepower of the replacement equipment engine. The horsepower should be the manufacturer's rated horsepower of that engine.

Step 4. Determine the Model Year of the Equipment and Engine

You must know the model year of your current engine. If the original engine was replaced with a later model year engine, use the model year of the engine and not the year of the equipment itself.

Step 5. Determine the Certified Emissions Rate and Model Year of the Equipment and Engine Being Purchased

Non-road heavy-duty diesel engines are certified by the U.S. Environmental Protection Agency (EPA) to meet federal nitrogen oxides (NO_x) emission standards established by year. The standards are usually expressed in grams per brake horsepower hour (g/bhp-hr). Normally, an engine will be certified to meet the emission standard applicable to the year in which the engine was manufactured. However, there are exceptions to this approach.

Some manufacturers (and in particular, Caterpillar, Inc.) may have non-road engines manufactured specifically for repowers that only meet a Tier 1 emission standard, even though the Tier 2 or 3 standard would normally apply for engines manufactured in that year. These engines may be used only to repower older equipment and not for installation in a new piece of equipment. Be sure to check with the engine supplier for all repower projects and particularly repower projects involving engines manufactured by Caterpillar, Inc. If the engine identified for purchase is certified to only a Tier 1 standard, even though the new engine emission standard for the year of manufacture is Tier 2 or above, use the Tier 1 emission level to determine the rebate grant amount. **Also note on the application form that the model year is different from the year of manufacture.** See Appendix B for a list of emission standards and tier levels by year.

Step 6. Determine the Maximum Rebate Grant Amount

Once you have selected the table for your type of equipment, find the columns applicable to the horsepower range and model year of the current engine. Find the line corresponding to the model year and certified emissions rate of the replacement engine. Find the maximum rebate grant amount listed for that combination of old and replacement equipment and/or engine.

Note that you may replace a piece of equipment and/or engine from one horsepower category with one from a lower horsepower category, but you may not replace a piece of equipment and/or engine from one horsepower category with one from a higher horsepower category. Use the rebate grant amount for the higher horsepower category in your rebate grant application.