Texas Commission on Environmental Quality
Texas Natural Gas Vehicle Grant Program
List of Eligible Natural Gas Vehicles and Engines
Updated – February 1, 2018

Purpose

To qualify under the Texas Natural Gas Vehicle Grant Program (TNGVGP), a vehicle, engine, or conversion system must operate solely on natural gas, including compressed natural gas (CNG), liquefied natural gas (LNG), or liquefied petroleum gas (LPG), or operate on a combination of diesel fuel and natural gas (dual-fuel) and capable of at least 60% displacement of diesel fuel use in dual-fuel operation. The qualifying vehicle or engine must also meet current U.S. Environmental Protection Agency (EPA) standards or criteria for nitrogen oxides (NO_X) emissions as listed below.

- **List A. On-Road Heavy-Duty Natural Gas Engines** – new purpose-built heavy-duty engines powered by CNG, LNG, or LPG, and certified by the EPA to the current federal emission standards.
- **List B. Chassis-Certified Natural Gas Vehicles** – new purpose-built chassis-certified heavy-duty vehicles and medium-duty passenger vehicles powered by CNG, LNG, or LPG, and certified by the EPA to the current federal emission standards.
- **List C. Chassis-Certified Vehicle Conversion Systems** – systems to convert a chassis-certified heavy-duty vehicle or medium-duty passenger vehicle powered by CNG, LNG, or LPG, and certified by the EPA to the current federal emission standards.
- **List D. On-Road Heavy-Duty Engine Conversion Systems** – systems to convert an existing on-road heavy-duty diesel or gasoline engine to operate on an eligible fuel, or a combination of the eligible fuel and diesel fuel (dual-fuel). The converted engine must be certified by the EPA to the current federal emission standards.
- **List E. Chassis-Certified Vehicle Conversion Systems *not* Certified to the Current Federal Emission Standard** – systems to convert an existing chassis-certified heavy-duty vehicle or medium-duty passenger vehicle to operate on an eligible fuel under the repower category. The conversion must result in a reduction in NO_X emissions of at least 25% compared to the unconverted vehicle. The vehicle conversion must have been tested using the EPA Federal Test Procedure (FTP) and result in NO_X emissions less than the current federal emission standards. Requires documentation of EPA-approved testing.
- **List F. Heavy-Duty Engine Conversion Systems *not* Certified to the Current Federal Emission Standards** – systems to convert an existing heavy-duty diesel or gasoline engine to operate on an eligible fuel or a combination of the eligible fuel and diesel fuel (dual-fuel) under the repower category by converting the existing engine or removing and replacing the existing engine with a converted engine. The engine conversion or replacement of the existing engine with a converted engine must result in a reduction in NO_X emissions of at least 25% compared to the baseline engine. The engine conversion must have been tested

using the EPA FTP and result in NO_x emissions less than the current federal emission standards. Requires documentation of EPA-approved testing.

This document lists engine family names for heavy-duty on-road vehicle engines and vehicle test group names for medium-duty passenger vehicles and chassis-certified heavy-duty vehicles that may be eligible under the program. Inclusion on these lists **DOES NOT** mean that a project involving one of the vehicles or engines included on the list is eligible for a grant. Certification to the required EPA emissions standard is only one of the criteria that must be met for a project to be eligible.

How to Update the List

If a manufacturer has determined that a vehicle, engine, or conversion system not included on this list meets the eligibility criteria, the manufacturer or applicant should contact the TCEQ for instructions on how to submit the required information. Instructions for manufacturers may be found at the following website:

https://www.tceq.texas.gov/airquality/terp/tngvgp.html/tngvgp_inforeq.html

If the TCEQ confirms that the vehicle, engine, or conversion system meets the eligibility criteria, the TCEQ will update the table with the applicable test group or engine family. The TCEQ will hold processing of an application for a vehicle, engine, or conversion system that is not on the approved list until the manufacturer documentation is received, reviewed, and approved.

Statement Regarding After-Market Vehicle Conversions

As further outlined in the Request for Grant Applications (RFGA), a natural gas vehicle purchased under the Replacement Project category must be 'new.' Under this requirement, if a newly-manufactured vehicle must be converted from conventional fuel to natural gas, that conversion must occur as part of the purchase of the vehicle.

After-market conversions to natural gas of a vehicle already owned, leased, or otherwise commercially financed by the applicant may be considered under the Repower Project category. The vehicle being repowered must have been owned or leased for at least two years prior to submission of the application.

Applicants should contact the TCEQ with any questions regarding the eligibility of systems to convert an existing vehicle to run on natural gas.

List A
On-Road Heavy-Duty Natural Gas Engines

The following on-road heavy-duty natural gas engine families have been issued an EPA Certificate of Conformity indicating the engines are certified to the required federal emissions standard of 0.2 grams per brake horsepower-hour (g/bhp-hr) of NO_x or better.

New vehicles with one of these engines installed may be eligible for purchase to replace an older conventional fuel vehicle. In addition, these engines may be available for repower of an existing conventional fuel vehicle. The replacement or repower must result in at least a 25% reduction in NO_x emissions.

This list does not distinguish between engine families that may be available on new vehicles and an engine family that may be available for repower of an existing heavy-duty vehicle. Applicants should work with their selected dealer to ensure that an engine family is applicable to the type of activity being applied for.

Only recent model year engines are listed. See the section entitled *How to Update the List* for information on submitting certificates for engines not on the list.

The TCEQ understands that, in some cases, by the time a purchase is completed, the vehicle and/or engine purchased may be a newer model than was originally listed in the application. Refer to the TNGVGP Request for Grant Applications (RFGA) and contract documents for criteria and directions regarding this situation.

Manufacturer	Model Year	Engine Model	Engine Family Name/Code	Fuel Type	Displacement Liters (L)
BAF Technologies	2014	V-10	EBAFE06.83NN	CNG	6.8 L
BAF Technologies	2014	V-10	EBAFE06.89NN	CNG	6.8 L
BAF Technologies	2015	V-10	FBAFE06.83NN	CNG	6.8 L
BAF Technologies	2015	V-10	FBAFE06.89NN	CNG	6.8 L
Capstone Turbine Corporation	2015	30X, Y, W, and Z	ECSTH0.31CNG	CNG	0.31 KG/S
Capstone Turbine Corporation	2015	65X, Y, W, and Z	FCSTH0.51NGH	CNG	0.51 KG/S
Capstone Turbine Corporation	2015	30X, Y, W, and Z	FCSTH0.31NGL	CNG	0.31 KG/S
Capstone Turbine Corporation	2015	65X, Y, W, and Z	FCSTH0.51NGB	CNG	0.51 KG/S
Clean Fuel USA Inc.	2017	LC8	HCLFE06.0LPG	LPG	6.0 L
Clean Fuel USA Inc.	2017	CleanFuel LPG	HCLFE08.0LPG	LPG	8.0 L
Cummins Inc.	2014	ISX12 G	ECEXH0729XBA	CNG/LNG	11.9 L
Cummins Inc.	2014	ISL G	ECEXH0540LBF	CNG/LNG	8.9 L
Cummins Inc.	2014	ISL G	ECEXH0540LBG	CNG/LNG	8.9 L
Cummins Inc.	2014	ISL G	ECEXH0540LBH	CNG/LNG	8.9 L
Cummins Inc.	2015	ISX12 G	FCEXH0729XBA	CNG/LNG	11.9 L
Cummins Inc.	2015	ISL G	FCEXH0540LBF	CNG/LNG	8.9 L
Cummins Inc.	2015	ISL G	FCEXH0540LBG	CNG/LNG	8.9 L
Cummins Inc.	2015	ISL G	FCEXH0540LBH	CNG/LNG	8.9 L
Cummins Inc.	2015	ISX12 G	FCEXH0729XBB	CNG/LNG	11.9 L
Cummins Inc.	2016	ISX12 G	GCEXH0729XBA	CNG/LNG	11.9 L
Cummins Inc.	2016	ISX12 G	GCEXH0729XBB	CNG/LNG	11.9 L
Cummins Inc.	2016	ISL G	GCEXH0540LBH	CNG/LNG	8.9 L
Cummins Inc.	2016	ISL G	GCEXH0540LBJ	CNG/LNG	8.9 L
Cummins Inc.	2016	ISL G	GCEXH0540LBF	CNG/LNG	8.9 L
Cummins Inc.	2016	ISL G	GCEXH0540LBI	CNG/LNG	8.9 L
Cummins Inc.	2016	ISL G	GCEXH0540LBG	CNG/LNG	8.9 L
Cummins Inc.	2017	ISX12 G	HCEXH0729XBA	CNG/LNG	11.9L

Manufacturer	Model Year	Engine Model	Engine Family Name/Code	Fuel Type	Displacement Liters (L)
Cummins Inc.	2017	ISL G	HCEXH0540LBF	CNG/LNG	8.9L
Cummins Inc.	2017	ISL G	HCEXH0540LBG	CNG/LNG	8.9L
Cummins Inc.	2017	ISL G	HCEXH0540LBH	CNG/LNG	8.9L
Cummins Inc.	2017	ISL G	HCEXH0540LBI	CNG/LNG	8.9L
Cummins Inc.	2017	ISL G	HCEXH0540LBJ	CNG/LNG	8.9L
Cummins Inc.	2017	ISL G	HCEXH0540LBK	CNG/LNG	8.9 L
Cummins Inc.	2017	ISB G	HCEXH0408BBA	CNG/LNG	6.7 L
Cummins Inc.	2018	B6.7N	JCEXH0408BBB	CNG/LNG	6.7L
Cummins Inc.	2018	L9N	JCEXH0540LBL	CNG/LNG	8.9L
Cummins Inc.	2018	L9N	JCEXH0540LBM	CNG/LNG	8.9L
Cummins Inc.	2018	L9N	JCEXH0540LBN	CNG/LNG	8.9L
Cummins Inc.	2018	ISX 12N	JCEXH0729XBC	CNG/LNG	11.9L
Encore Tec LLC	2017	2 Valve	HEL3E06.076P	CNG	6.0L
Encore Tec LLC	2017	3 Valve	HEL3E06.8BW6	CNG	6.8L
Encore Tec LLC	2017	3 Valve	HEL3E06.8BWZ	CNG	6.8L
Greenkraft Inc.	2014	V-10	EGKTE06.8FM1	CNG	6.8 L
Greenkraft Inc.	2014	V-8	EGKTE06.0GM2	CNG	6.0 L
Greenkraft Inc.	2015	V-10	FGKTE06.8FM1	CNG	6.8 L
Greenkraft Inc.	2015	V-8	FGKTE06.0GM2	CNG	6.0 L
Greenkraft Inc.	2015	V-8	FGKTE08.0GM8	CNG	8.0 L
Greenkraft Inc.	2016	V-8	GGKTE06.0GM2	CNG	6.0 L
Greenkraft Inc.	2016	V-8	GGKTE08.0GM8	CNG	8.0 L
Greenkraft Inc.	2017	V-8	HGKTE06.0GM2	CNG	6.0L
Greenkraft Inc.	2017	V-8	HGKTE06.0PRO	LPG	6.0L
Greenkraft Inc.	2017	V-8	HGKTE08.0GL8	LPG	8.0L
Greenkraft Inc.	2017	V-8	HGKTE08.0GC8	CNG	8.0L
IMPCO Automotive	2015	E-Series	FZ9XE06.8DC2	CNG	6.8 L
IMPCO Automotive	2015	E-Series	FZ9XE06.8DC4	CNG	6.8 L
IMPCO Automotive	2016	E-Series	GZ9XE06.8DC2	CNG	6.8 L
IMPCO Automotive	2016	6.0 DCNG	GZ9XE06.0DCA	CNG	6.0 L
IMPCO Automotive	2016	F-650	GZ9XE06.8DC6	CNG	6.8 L
IMPCO Automotive	2016	F-450/550	GZ9XE06.8DC3	CNG	6.8 L
IMPCO Technologies	2014	6.0 DCNG	EZ9XE06.0DCA	CNG	6.0 L
IMPCO Technologies	2014	E-Series	EZ9XE06.8DC2	CNG	6.8 L
IMPCO Technologies	2015	6.0 DCNG	FZ9XE06.0DCA	CNG	6.0 L
IMPCO Technologies	2015	F-Series	FZ9XE06.8DC3	CNG	6.8 L
IMPCO Technologies Inc.	2017	E-Series	HZ9XE06.8DC2	CNG	6.8L
IMPCO Technologies Inc.	2017	F-Series	HZ9XE06.8DC6	CNG	6.8L
Landi Renzo USA	2014	L96 LC8	ELDRE06.0C10	CNG	6.0 L
Landi Renzo USA	2014	6.8L	ELDRE06.8C10	CNG	6.8 L
Landi Renzo USA	2014	6.8L	ELDRE06.8B10	CNG	6.8 L
Landi Renzo USA	2015	L96 LC8	FLDRE06.0C10	CNG	6.0 L
Landi Renzo USA	2015	6.8 L	FLDRE06.8C10	CNG	6.8 L
Landi Renzo USA	2015	6.8 L	FLDRE06.8B10	CNG	6.8 L
Landi Renzo USA	2015	6.0 L	FLDRE06.0C11	CNG	6.0 L
Landi Renzo USA	2016	6.8 L	GLDRE06.8B10	CNG	6.8 L
Landi Renzo USA	2016	6.8 L	GLDRE06.8C11	CNG	6.8 L
Landi Renzo USA	2016	L96 LC8	GLDRE06.0C10	CNG	6.0 L
Landi Renzo USA	2017	6.8L	HLDRE06.8B10	CNG	6.8L
Landi Renzo USA	2017	6.8L	HLDRE06.8C11	CNG	6.8L
Landi Renzo USA	2017	6.0L	HLDRE06.0C10	CNG	6.0L
Landi Renzo USA	2018	6.0L	JLDRE06.8B10	CNG	6.0L
Landi Renzo USA	2018	6.8L	JLDRE06.8C11	CNG	6.8L

Manufacturer	Model Year	Engine Model	Engine Family Name/Code	Fuel Type	Displacement Liters (L)
Power Solutions International Inc.	2015	PSI CNG	FPSIE08.8CNG	CNG	8.8 L
Power Solutions International Inc.	2016	PSI CNG	GPSIE06.0CNG	CNG	6.0 L
Power Solutions International Inc.	2016	PSI CNG	GPSIE08.8CNG	CNG	8.8 L
Power Solutions International Inc.	2017	PSI CNG	HPSIE06.0CNG	CNG	6.0L
Power Solutions International Inc.	2017	PSI LPG	HPSIE06.0LPG	LPG	6.0L
Power Solutions International Inc.	2017	8.8L CNG	HPSIE08.8CNG	CNG	8.8L
Power Solutions International Inc.	2017	8.8L LPG	HPSIE08.8LPG	LPG	8.8L
Roush Industries Inc.	2016	6.8L	GRIIE06.8BWZ	LPG	6.8L
Roush Industries Inc.	2016	6.8L	GRIIE06.8BWL	LPG	6.8L
Roush Industries Inc.	2017	6.8L	HRIIE06.8BWL	LPG	6.8L
Roush Industries Inc.	2017	6.8L	HRIIE06.8BWZ	LPG	6.8L
Roush Industries Inc.	2017	6.8	HRIIE06.8BWC	CNG	6.8L
Westport Dallas Inc.	2017	V-10	HBAFE06.8BW6	CNG	6.8L

List B
Chassis-Certified Natural Gas Vehicles

The following heavy-duty vehicle and medium-duty passenger vehicle test groups have been issued a certificate of conformity meeting the required emissions standards of 0.2 g/mi of NO_X or better for heavy-duty vehicles 8,501 – 10,000 GVWR, 0.4 g/mi of NO_X or better for heavy-duty vehicles 10,001 – 14,000 GVWR, or 0.07 g/mi of NO_X or better for medium-duty passenger vehicles.

A natural gas vehicle purchased under the TNGVGP must be new. Therefore, only recent certificates are listed. See the section entitled *How to Update the List* for information on submitting certificates for vehicles not on the list.

The TCEQ understands that, in some cases, by the time a purchase is completed the vehicle and/or engine purchased may be a newer model than was originally listed in the application. Refer to the TNGVGP RFGA and contract documents for criteria and directions regarding this situation.

Vehicle Model(s)	Model Year	Manufacturer	Test Group/Code	Fuel Type

List C
Chassis-Certified Vehicle Conversion System

The following heavy-duty natural gas vehicle and medium-duty passenger vehicle conversion system test groups have been issued a certificate of conformity meeting the required emissions standards of 0.2 g/mi of NO_x or better for heavy-duty vehicles 8,501 – 10,000 GVWR, 0.4 g/mi of NO_x or better for heavy-duty vehicles 10,001 – 14,000 GVWR, or 0.07 g/mi of NO_x or better for medium-duty passenger vehicles.

A natural gas vehicle purchased under the TNGVGP must be new. Therefore, only recent certificates are listed. See the section entitled *How to Update the List* for information on submitting certificates for conversion systems not on the list.

The TCEQ understands that, in some cases, by the time a purchase is completed the vehicle and/or engine purchased may be a newer model than was originally listed in the application. Refer to the TNGVGP RFGA and contract documents for criteria and directions regarding this situation.

Conversion System			**Original Vehicle**					
Conversion Manufacturer	Conversion Test Group/Family Code	Conversion Fuel Type	Vehicle Model(s)	Vehicle Class	Model Year(s)	Vehicle Manufacturer	Test Group Name/Code	Fuel Type
Altech-Eco	HAECD03.76BA (009)	CNG	Transit T150 Van, Transit T250 Van, Transit T350 Van, Transit T250 Van 2WD, Transit T250 Van 2WD, Transit T250 Wagon 2WD, Transit T350 Van 2WD, Transit T350 Wagon, Transit T350 Wagon 2WD	HD-2b	2017	Ford	HFMXD03.76BX HFMXD03.76BG	Gasoline

Conversion System			Original Vehicle					
Conversion Manufacturer	Conversion Test Group/ Family Code	Conversion Fuel Type	Vehicle Model(s)	Vehicle Class	Model Year(s)	Vehicle Manufacturer	Test Group Name/Code	Fuel Type
Altech-Eco	HAECD03.76BA (010)	CNG	Transit T250 Cutaway, Transit T250 Cutaway 2WD, Transit T250 Chassis Cab, Transit T250 Chassis Cab 2WD, Transit T350 Cutaway, Transit T350 Cutaway 2WD, Transit T350 Chassis Cab, Transit T350 Chassis Cab 2WD	HD-2b	2017	Ford	HFMXD03.76BX HFMXD03.76BG	Gasoline
Altech-Eco	HAECD03.77BA (011)	CNG	Transit T350 Van, Transit T350 Wagon	HD-3	2017	Ford	HFMXD03.77BX	Gasoline
Altech-Eco	HAECD03.77BA (012)	CNG	Transit T350 Cutaway, Transit T350 Chassis Cab	HD-3	2017	Ford	HFMXD03.77BX	Gasoline
Altech-Eco	HAECD06.27BA (024-R01, 026-R01)	CNG	F350 Pickup 2WD, F350 Pickup 4WD	HD-3	2017	Ford	HFMXD06.27BC	85% Ethanol, Gasoline
Altech-Eco	HAECD06.27BA (025-R01, 027-R01)	CNG	F350 4WD Bed Delete, F350 2WD Bed Delete	HD-3	2017	Ford	HFMXD06.27BC	85% Ethanol, Gasoline

Conversion System			Original Vehicle					
Conversion Manufacturer	Conversion Test Group/ Family Code	Conversion Fuel Type	Vehicle Model(s)	Vehicle Class	Model Year(s)	Vehicle Manufacturer	Test Group Name/Code	Fuel Type
Landi Renzo USA	JLDRT06.2C17 (001)	CNG	F350 Incomplete 2WD FFV, F350 Incomplete 4WD FFV	HD-3	2018	Ford	JFMXD06.27CH	Gasoline
Landi Renzo USA	JLDRT06.2C14 (002-005)	CNG	F250 Pickup 2wd FFV, F250 Pickup 4WD FFV, F350 Pickup 2WD FFV, F350 Pickup 4WD FFV, F250 2WD Bed Delete FFV, F250 4WD Bed Delete FFV, F350 2WD Bed Delete FFV, F350 4WD Bed Delete FFV,	HD-3	2018	Ford	JFMXD06.26BC	Gasoline
Landi Renzo USA	JLDRT06.2C15 (006)	CNG	F350 Incomplete 2WD FFV, F350 Incomplete 4WD FFV	HD-3	2018	Ford	JFMXD06.26CH	Gasoline
Landi Renzo USA	JLDRT06.2C16 (007-010)	CNG	F350 Pickup 2WD FFV, F350 Pickup 4WD FFV, F350 2WD Bed Delete FFV, F350 4WD Bed Delete FFV	HD-3	2018	Ford	JFMXD06.27BC	Gasoline
Landi Renzo USA	JLDRT06.2C17 (001)	CNG	F350 Incomplete 2WD FFV, F350 Incomplete 4WD FFV	HD-3	2018	Ford	JFMXD06.27CH	Gasoline

Conversion System			Original Vehicle					
Conversion Manufacturer	Conversion Test Group/ Family Code	Conversion Fuel Type	Vehicle Model(s)	Vehicle Class	Model Year(s)	Vehicle Manufacturer	Test Group Name/Code	Fuel Type
Westport Dallas Inc.	HBAFD03.76BX (001)	CNG	Transit	HD-2b	2017	Ford	HFMXT03.75HG HFMXD03.76BX HFMXD03.77BX HFMXD03.76BG	Gasoline
Westport Dallas Inc.	HBAFD06.26BC (008)	CNG	F250/350	HD-2b	2017	Ford	HFMXD06.26BC HFMXD06.26CH HFMXD06.27BC HFMXD06.27CH	Gasoline

List D
On-Road Heavy-Duty Engine Conversion Systems

The following on-road heavy-duty natural gas engine conversion systems have been issued a certificate of conformity meeting the required emissions standards of 0.2 g/bhp-hr of NO_x or better.

See the section entitled *How to Update the List* for information on submitting certificates for engines not on the list.

Conversion System			**Original Vehicle**					
Conversion Manufacturer	Conversion Engine Family Name/Code	Conversion Fuel Type	Engine Model(s)	Displacement	Model Year(s)	Engine Manufacturer	Engine Family Name/Code	Fuel Type
Impco Technologies Inc.	HZ9XE06.8DC6	CNG	H6.8DC6	6.8L	2016	Ford	GFMXE06.8BW6	Gasoline

List E
Chassis-Certified Vehicle Conversion Systems not Certified to the Current Federal Emission Standards

The following heavy-duty natural gas vehicle and medium-duty passenger vehicle conversion system test groups have been evaluated by the TCEQ and determined to have been tested under Federal Test Procedures (FTP) to required emissions 0.2 g/mi of NO_x or better for heavy-duty vehicles 8,501 – 10,000 GVWR, 0.4 g/mi of NO_x or better for heavy-duty vehicles 10,001 – 14,000 GVWR, or 0.07 g/mi of NO_x or better for medium-duty passenger vehicles.

See the section entitled *How to Update the List* for information on submitting information on vehicle conversion systems not on the list.

Conversion System			**Original Vehicle**					
Conversion Manufacturer	Conversion Test Group/ Code	Conversion Fuel Type	Vehicle Model(s)	Vehicle Class	Model Year(s)	Vehicle Manufacturer	Test Group Name/Code	Fuel Type

List F
Heavy-Duty Engine Conversion Systems not Certified to the Current Federal Emission Standards

The following on-road heavy-duty natural gas engine conversion systems have been evaluated by the TCEQ and determined to have been tested under Federal Test Procedures (FTP) to required emissions of 0.2 g/bhp-hr of NO_x or better.

See the section entitled *How to Update the List* for information on submitting certificates for engines not on the list.

Conversion System			Original Vehicle					
Conversion Manufacturer	Conversion Engine Family Name/Code	Conversion Fuel Type	Engine Model(s)	Displacement	Model Year(s)	Engine Manufacturer	Engine Family Name/Code	Fuel Type