

Frequently Asked Questions About Converting Vehicles to Operate on Natural Gas

The rising cost of gasoline and diesel fuel is prompting many people to investigate options to retrofit (“convert”) their car or pick-up truck to run either (1) solely on natural gas, which is referred to as “dedicated” or (2) to run on gasoline OR natural gas, which EPA refers to as “dual-fuel” although the worldwide accepted nomenclature for such vehicles is “bi-fuel.” This document answers the basic questions most often posed to NGV America about this topic including: conversion system availability; installation, service and warranty issues; costs; and available tax credits. This document does not address conversion of heavy-duty vehicles over 14,000 pounds GVWR such as buses, many shuttles and/or work trucks. EPA’s current guidance on the use of aftermarket conversion systems is available here: <http://www.epa.gov/OMS/cert/dearmfr/cisd0602.pdf>.

Federal Emissions Certification Processes and the Impact on “Conversion” System Availability

EPA Emissions Certifications:

Shortly after its formation in 1970, the Environmental Protection Agency (EPA) was granted Congressional authority through the Clean Air Act (CAA) to regulate vehicle emissions for all new motor vehicles. Under this authority, EPA established certification procedures that require original equipment manufacturers (OEMs) to submit new model year vehicle emissions data to EPA so that it can verify that vehicles comply with established emissions standards. In 1974, in response to questions about aftermarket modifications to existing vehicles, EPA issued guidance known as “Memorandum 1A,” which instructs dealers and installers of aftermarket parts on how they can protect themselves from violating the federal anti-tampering law. Memorandum 1A essentially requires that such persons must have a reasonable basis to believe that their actions or the parts they use “will not adversely affect emissions performance.”

In 1994, partially in response to growing interest by the major OEMs, EPA finalized emission certification requirements for gaseous fueled engines (including CNG vehicles) – the regulations became mandatory for OEMs and new vehicles effective MY 1997. EPA’s final rule also included provisions allowing aftermarket manufacturers the option of certifying their systems using the procedures for new vehicles but compliance was voluntary. Thus, EPA’s final rule indicated that aftermarket conversion manufacturers could continue to comply with Memorandum 1A’s “reasonable basis” requirement instead of going through certification. In late 1997, EPA issued an addendum to Memorandum 1A indicating that it intended to impose more stringent requirements on aftermarket conversion systems. These more stringent procedures became known as “Memorandum 1A - Option 3.” (Option 1 & 2 required certification to EPA or California regulations). The idea behind Option 3 was to increase testing requirements to ensure that no emission degradation was occurring and to transition the aftermarket industry to a point where all conversion systems had to undergo certification, just like new motor vehicles. The 1997 Addendum initially established a target date of Dec. 31, 1998 as the phase-out date for non-certified systems. EPA, however, subsequently issued several memorandums and guidance letters extending this date until April 1, 2002. As of April 1, 2002, Option 3 is no longer an acceptable means of demonstrating compliance with the anti-tampering provisions for most vehicles. Some exceptions exist with respect to certain older vehicles or high mileage vehicles, which are beyond their useful life (10 – 11 years old or 100,000 – 120,000 miles). However, the general rule is that certification to EPA or CARB regulations is now required for most newer vehicles. EPA can levy substantial fines for violations of the federal anti-tampering provisions.

Disclaimer: This document was prepared for informational purposes only. It has been made available with the understanding that the publisher is not engaged in rendering legal, accounting, or other professional service. If legal advice or other expert assistance is required, the services of a competent professional should be sought.

Thus, anyone who manufacturers, installs or sells a non-certified system runs the risk of being found guilty of tampering and could face serious fines. The EPA certification requirements apply to all alternative fuel vehicle retrofit systems including natural gas, propane, methanol, ethanol and/or hydrogen retrofit systems. (See below for vehicles that are pre-2003MY and/or beyond their “useful life”).

California Emissions Compliance Executive Orders

Federal law authorizes California to carry out and enforce its own more stringent vehicle emissions regulations for vehicles sold or registered in California. These California-specific requirements, which are permitted by federal statute, are promulgated by the state’s Air Resources Board (CARB). Under federal law, other states are permitted to adopt CA emissions regulations for new vehicles. States thus far adopting – or phasing in adoption of – CARB new vehicle standards include: Arizona, Colorado, Connecticut, Florida, Maine, Massachusetts, Maryland, New Jersey, New Mexico, New York, Oregon, Pennsylvania, Rhode Island, Utah, Vermont and Washington. EPA has indicated that – unless these states have specifically adopted CARB’s *aftermarket* regulations or implemented similarly restrictive rules - used vehicles operated in so-called CARB states may be legally retrofitted using EPA-certified systems. Vehicle owners and qualified retrofit system installers should check with their own state motor vehicle and/or air quality agencies to determine the definitions of *new* and *used* vehicles and what other engine retrofit systems guidelines apply.

Obtaining an EPA Certificate or CARB EO

A Certificate of Conformity (certificate) from EPA or an Executive Order (EO) from CARB applies to a specific engine family (often referred to as an engine test group). To obtain a Certificate or EO, the retrofit system manufacturer (SVMs) must submit substantial emissions performance data and related documentation to EPA and/or CARB for review. Additionally, new converters may be asked to submit a converted vehicle for rigorous testing to verify this data. This testing assures that the retrofitted vehicle meets the same stringent emissions requirements the original equipment manufacturers (OEM) -- e.g., GM, Ford and Daimler -- met when they submitted their gasoline or diesel-powered vehicle for certification. The testing also ensures that the retrofit system works seamlessly with the OEM’s on-board diagnostics (OBD) system to indicate when emissions are outside of approved parameters and to log those anomalies in the computer memory for downloading by the automotive service technician. Non-certified systems usually do not meet this important criterion and will fail state or local emissions tests. The process of engineering, manufacturing, installing, pre-testing and then submitting a proposed retrofit system to an EPA- or CARB-approved laboratory for certification is a time-consuming and expensive process that may cost as much as \$200,000 or more per engine family. SVMs recoup this R&D investment by amortizing the cost across the expected sales volume, adding it to the price they charge for the various components (computer control module, regulator, injectors, high-pressure hoses and fittings, etc).

Certification of an aftermarket system allows that equipment to be legally installed on a specific engine family for a specific model year, e.g. 2008 GM 6.0L engine family “XYZ”, which may apply to several – but not all – 2008 GM vehicles with a GM 6.0L engine. Furthermore, EPA certification applies only to the installation of that system for a limited time period (e.g., usually no longer than December 31 of the year following the year the certificate was granted). SVMs may opt to ‘carry-over’ their certifications into future years by filing additional documentation and paying a fee, thus allowing them to convert a previous model-year vehicle (for which they obtained certification) in later years (e.g. carry-over of a 2007 certification to allow conversion of a 2007 vehicle in 2009). The decision to carry-over a certification is usually based on the SVM’s projected sales volume, the administrative burdens and fees assessed based on projected sales. Some manufacturers also are not interested in carry-over certifications because they want to avoid having their systems installed on higher mileage vehicles.

Currently Available EPA-/CARB-CERTIFIED Natural Gas Vehicles and Engines

Due to the technical difficulty and the expense, there only a few SVMs currently offering aftermarket systems which have been certified by EPA- and/or CARB-certification. For this reason, there currently are a limited number of engine families and applicable vehicle models for which fleets and consumers can purchase a certified aftermarket system. Currently, there are six SVMs offering EPA- certified systems (two also have CARB certifications) for eight GM and Ford light-duty engine families covering about twenty-five vehicle models (and various iterations of the same base models). Presently, these include the GM 3.5L, 3.9L, 4.8L, 6.0L engines and the Ford 2.0L, 4.6L, 5.4L and 6.8L engines. Note: Not all vehicles with these engines are covered in the engine test groups for which certifications have been granted. In addition, there are no certified natural gas engine conversion systems available in the U.S. for any other light-duty vehicle brands -- although American Honda does manufacture the natural gas Civic GX at their Indiana plant. [Note: Additional EPA- and CARB-certified medium- and heavy-duty engines are available].

Visit <http://www.ngvamerica.org/pdfs/marketplace/MP.Analyses.NGVs-a.pdf> for an up-to-date list of ALL currently available EPA- and CARB-certified engine retrofit and repower systems - and the contact info for the SVMs. As new certifications are granted, this list will be updated as will the SVM contact information.

Retrofitting Pre-MY2003 Vehicles and Vehicles Beyond Their Useful Life

As noted above, most retrofit system SVMs have no interest in – and do not maintain active certifications for - vehicles with high (or even medium) mileage due to technical complications caused by long-term operation on gasoline. Despite this, some people may still pursue conversion of their older vehicles to natural gas. The following discussion offers general guidance concerning EPA emissions laws and regulations for older vehicles:

The U.S. EPA has indicated to NGV America that its certification procedures really only are appropriate for vehicles which are within their useful life, which is roughly defined as 10 years or 120,000 miles, although the exact definition of useful life has changed over time. EPA guidance addresses this point but is less than clear. We have been told that future guidance will be far more extensive on this issue. For any pre-MY1999 vehicles or any MY vehicle with significant mileage (e.g. 100,000 for Tier 1, or 120,000 for Tier 2), current EPA guidance appears to indicate that retrofit system certification is not required although the general guidance of “Memorandum 1A” (i.e., you must have a reasonable basis to believe that the system will not increase the emission) still applies. For MY1999 to MY2003 vehicles that have not yet reached 120,000, EPA guidelines indicate that certification of the retrofit system IS required,¹ which makes this option economically unfeasible. See EPA’s web site for further clarification on this issue including guidance on converting vehicles older than 10 years or beyond 100,000 - 120,000 miles.

Buyer Beware:

Today there a variety of non-certified systems that are sold on the Internet and/or offered by automotive shops. Consumers purchasing a non-certified system should be extremely cautious and obtain information from the person installing such systems to ensure that the equipment they use and the installation are legal and safe. As noted above, some non-certified systems can be legally sold if the vehicle is beyond its useful

¹ EPA previously allowed such vehicles to be converted under Option 3. Thus, today there are some MY 1999 – 2003 (and many earlier MY vehicles as well) which have conversion systems installed on them that were not certified but were legally installed at the time because EPA had not yet required certification.

life. However, for most newer model year vehicles certification is legally required by EPA and CARB. The fact that a system is certified for use in another country does not mean that it meets US. EPA or CARB requirements as most other countries have less strict vehicle emissions laws and currently neither EPA or CARB recognize foreign certification. In addition, currently there are no federal “installer certification” requirements (see” Installation” below) – beware of shops touting that they are “federally certified” to do such installations.

Installation

Installation of an engine conversion package and fueling system may be done after the vehicle has been in service or when the vehicle is first purchased. EPA and CARB require that SVMs provide appropriate documentation and training to installers of their systems, commonly referred to as “qualified system retrofitters” (QSR).

Installation by a non-qualified installer could damage the retrofit equipment or the engine (or both), compromise vehicle performance, or render the vehicle unsafe to operate. Because of the liability for in-use emissions and safety, manufacturers of certified EPA- or CARB conversion systems do not sell them to untrained/unapproved installers. Alternative fuel conversion systems are not “kits” that individuals buy and install in their garage or have installed by a local, untrained mechanic. Some SVMs prefer to install their systems themselves at their corporate facilities while other SVMs choose not to install their own equipment – opting instead to sell their systems only through QSRs. Typically, the QSR is responsible for obtaining the fuel storage system components (cylinders, high-pressure tubing, pressure release device (PRD), brackets, protective plates, etc) and installing these components in accordance with the National Fire Protection Association’s (NFPA) Vehicular Fuel Systems Code (NFPA 52). EPA- and/or CARB certification only addresses the retrofit system’s compatibility with the specific engine to which it has been applied and does not address overall installation of that system nor of the other components noted above. These safety-oriented issues are the domain of the local fire marshal, most - if not all - of whom have adopted NFPA 52 as their reference standard for proper/safe installation of NGV systems. Consumers should insist that the installer verify that the system meets NFPA 52 requirements.

NGVAmerica does not maintain a list of QSRs. Contact the SVMs for information about the QSR that is closest to you.

Automotive shops interested in becoming a QSR should contact the SVMs directly to inquire about the technical, equipment and financial capabilities/resources they require and the process to become one of their QSRs. Those SVMs willing to sell their retrofit systems to installers will require that the prospective installer go through their SVM-specific training. At this time, there are no federal “certification” requirements for installers although several states (e.g., Oklahoma) have established STATE retrofit system installer training and certification requirements.

Service and Warranty Issues

Generally, vehicle warranties offered by the original automotive manufacturer (OEM) are not affected by the installation of an engine retrofit system, with the exception that the engine warranty for all items related directly to the retrofit system are covered by the SVM. The OEM’s warranty on non-engine-retrofit-system-related items (e.g., a defective lock, leaking power steering pump) remains in force. Many OEM dealers are unfamiliar with NGV retrofit systems and logistics, and may errantly tell customers that the “vehicle warranty” will be voided, but

this is inaccurate. EPA guidance clearly states that installing conversion systems on used vehicles does not violate the OEMs warranty.².

Because natural gas engines work essentially the same way as gasoline engines -- i.e. an air-fuel mixture is injected into the intake manifold, drawn into the combustion chamber, then ignited by a sparkplug -- most engine service issues are very similar and can be handled by the OEM dealer or local automotive service shop. These include oil changes, air filter changes etc. If and when a retrofit system-related service issue arises (e.g., a faulty injector or loose compression fitting), the SVM usually recommends that a QSR perform this work, or, in the case of the SVM that installs the system themselves, a local SVM-trained OEM dealer or automotive shop will be recommended.

Occasional inspection of all vehicle systems is generally good practice, regardless of fuel type. NHTSA, the federal agency with jurisdiction concerning vehicle safety, requires that all CNG fuel storage cylinders have a label that (1) states the date of manufacture and the date that the cylinder is required to be removed from service (typically 15-20 years), and (2) instructs the vehicle owner/operator to have a qualified visual inspection of the tank every 36,000 miles or every 3 years (whichever occurs first) and/or after an accident or fire.. Inspections are performed to look for tank and bracket damage (e.g. gouges, cuts, abrasions, dents, corrosion, rust, general wear, etc). Converters and vehicle owners should have documentation that this safety inspection has been done, especially if installing used cylinders that still have remaining life (as noted on the cylinder manufacturing label). Qualified cylinder inspectors are located throughout the US and Canada. The cost/time associated with a cylinder inspection is minimal. More information about CNG cylinder inspections and links to certified inspectors is available at <http://www.cleanvehicle.org/technology/cylinder.shtml>. Always check with the SVM and/or the QSR concerning recommended service practices and warranty coverage.

Costs of Converting a Vehicle to Run on Natural Gas

The cost of converting a vehicle to run on natural gas includes the SVM's retrofit system, fuel tanks and related tubing/brackets, and the installation. The amount of fuel capacity requested by the customer (and thus the number, type, dimensions and configuration of the fuel tanks) significantly impacts cost since CNG cylinders are expensive.

For most people, an important consideration is whether the net costs associated with converting a vehicle to run on natural gas (after all costs, grants and/or tax credits are taken into account) will be recouped in fuel savings over the remaining life of the vehicle. Generally, it is not cost-effective to convert an older vehicle unless it has plenty of mileage left and will now be driven enough to recoup the investment in fuel savings. For this reason, SVMs generally do not carry over their previous model year certifications more than one or two years. For example, none of the light-duty SVMs currently offer EPA- or CARB-certified conversion systems for vehicles earlier than 2007. However, if a fleet operator requested the retrofit of 30 of their 2006 pick-up trucks, the SVM with the specific 2006 certification might be persuaded to incur the cost of re-filing with EPA. Unlike EPA, EO's issued by CARB for a particular vehicle model year and test group do not expire. Certificates issued by EPA for a particular model year and test group are limited for a defined period of time. Upon expiration the SVM must re-

² <http://www.epa.gov/OMS/cert/dearmfr/cisd0602.pdf> (p. 10)

file (submit a new Application for Certification). No new test data are required but an updated fee payment is required.

A more common occurrence is the retrofit of a new vehicle. Conversion of new vehicles provides the greatest opportunity to save fuel cost and, thereby, pay back the conversion cost and generate life-cycle savings.

While NGVAmerica recommends that potential customers contact the appropriate SVMs directly about vehicle conversion costs, the following are general “ballpark” estimates of retail light-duty vehicle conversion costs provided by SVMs. Specific quotes will vary based on fuel capacity, number of vehicles, wheel base, etc.

Crown Vic/Lincoln Town Car/Mercury Marquis with 13 gasoline gallon equivalent (GGE): \$13,500

E350 Cargo/Passenger Van with 20 GGE fuel: \$15,500

F150/250/350 Pick-up Truck with 20 GGE: \$16,500; with 30 GGE: \$18,500

E450 Cutaway Shuttle Van with 24-38 GGE: \$18,500-22,500

Sierra/Silverado 1500/2500HD Pick-up Truck with 11GGE: \$12,500; with 20GGE: \$15,500

Savanna/Express G1500/2500 Cargo/Passenger Van 12-20GGE: \$12,500-16,000

Tax Credits Offset Part of Vehicle Conversion Cost

The federal Energy Policy Act of 2005 included an income tax **credit** that offsets 50-80% of the buyer’s incremental cost of purchasing a new DEDICATED NGV and -- especially important to the discussion here -- also applies to the cost to convert an existing vehicle to operate on natural gas. For a conversion, the “incremental price” is the full cost of the conversion. The federal credit applies only to dedicated NGVs. Furthermore, it only applies to EPA- or CARB-certified OEM vehicles or EPA- or CARB-certified SVM retrofit systems. The federal tax credits are applicable to NGVs placed in service after December 31, 2005 (which includes previous gasoline-fueled vehicles placed in service prior to December 31, 2005 but converted to CNG after December 31, 2005). The federal tax credit does NOT apply to non-EPA-/non-CARB-certified vehicles, nor does it apply to bi-fuel vehicles, nor does it apply to the purchase of used/existing CNG vehicles.

The amount of the federal tax credit is determined by two basic criteria: the vehicle’s gross vehicle weight rating and the EPA- or CARB certification level. Dedicated NGVs certified to the minimum federal level qualify for 50% of the incremental cost (within the cap) while “extra clean” vehicles given an extra 30% “bonus” for a total of 80% of their incremental cost (again, within the cap for that GVWR group). The four GVWR groups and applicable incremental cost caps are:

GVWR up to 8500#: Incremental cost capped at \$5000: Credits from \$2500 to \$4000

GVWR 8501# - 14,000#: Incremental cost capped at \$10,000: credits from \$5000-\$8000

GVWR 14,001# - 26,000#: Incremental cost capped at \$25,000; Credits from \$12,500-\$20,000

GVWR over 26,000#: Incremental cost capped at \$40,000: credits from \$20,000-\$32,000

All sedans and most vans and pick-up trucks will fall into the first GVWR group, but there are many “beefed up” pick-up trucks and vans that have GVWRs between 8500-10,000# and thus would qualify for the higher “second tier” federal tax credit.

In addition, some STATE’s offer tax credit for converting a vehicle to natural gas. These tax credits are state-specific and some are temporary in nature (e.g., while funds last, first 200 vehicles). Check with your appropriate

state taxation office concerning availability of state tax credits. We suggest that you search the Internet under “alt fuel vehicles tax credits (your state).”

Below are a few examples of the FEDERAL tax credits available for sedans, vans and pick-up trucks.

American Honda Civic GX: \$4000 (dedicated OEM-produced NGV; GVWR <8500# so incremental cost cap is \$5000, CARB SULEV-certified so qualifies for 80% credit: $.8 \times \$5000 = \4000)

BAF Crown Victoria sedan: \$4000 (dedicated NGV; GVWR <8500# so incremental cost capped at \$5000; CARB SULEV certified so it qualifies for 80% credit; $.8 \times \$5000 = \4000)

BAF Technologies Ford E350 Passenger van: \$8000 (dedicated NGV; GVWR = 9600# so incremental cost cap is \$10,000; CARB SULEV certified so it qualifies for 80% credit: $.8 \times \$10,000 = \8000)

Baytech Silverado C1500 pick-up truck: \$4000 (dedicated NGV; GVWR <8500# so incremental cost capped at \$5000; CARB SULEV certified so it qualifies for 80% credit: $.8 \times \$5000 = \4000)

Baytech Silverado C2500HD pick-up truck: \$8000 (dedicated NGV; GVWR 8700/9100 so incremental cost capped at \$10,000; CARB SULEV certified so it qualifies for 80% credit: $.8 \times 10,000 = \$8000$)

IMPCO Silverado C1500 bi-fuel pick-up truck: \$0 (bi-fuel vehicles don't qualify for federal tax credits – may qualify for some states incentives)

More information about the available FEDERAL tax incentives for purchase of new NGVs and conversions is available at <http://www.ngvamerica.org/pdfs/FederalVehicleTaxCredit.pdf>

Options to Investigate If Converting Your Vehicle Isn't Viable

If converting your existing vehicle to run on natural gas is not an option – either because an EPA-/CARB-certified system is not available or the economics don't make sense, NGVAmerica suggests that you investigate the option of (1) purchasing a new OEM NGV (Honda Civic GX), (2) purchasing a new vehicle for which a retrofit system is available and having the retrofit done at the time of purchase, or (3) purchasing a used NGV. Government agencies have been the largest purchasers of light-duty NGVs, and many sell their vehicles after reaching a specific age or mileage benchmark. Examples include federal, state and local government agencies, airport and transit authorities (light-duty sedans and pick-up trucks are often used by their security, route supervisor and/or maintenance personnel). While these vehicles do not qualify for the vehicle purchase tax credit because they were already placed in service, they are often low-cost and have remaining life on them for you to garner fuel savings.

NGVAmerica does not maintain a list of vehicle auctioneers or resellers of used NGVs but we are aware that many of the NGVs being purchased by consumers are used government vehicles. Again, we suggest that you search the Internet under “CNG vehicles used auction.” The federal government (GSA) site for auctions is <http://www.autoauctions.gsa.gov/index.cfm>

Fueling Your CNG Vehicle

Before you convert your vehicle to run on natural gas – or purchase a used CNG vehicle, be sure to investigate your fueling options. While there are over 1000 CNG fueling locations in the U.S., many (about one-half) are not

open to the public. Instead, they are restricted to use only by the fleet operator (referred to as private access stations). Others allow public refueling only after an account and “charge” card account have been established (referred to as limited public access), while still others allow public fueling with convenient credit card and/or proprietary billing card access (referred to as full public access). Many of these existing CNG stations were originally installed by natural gas utilities and, thus, are in “clusters” associated with their service territories. Some gas utilities left the market, either closing their stations or selling them to a small cadre of independent retail CNG fuel companies that have built upon these networks and added new stations. The most comprehensive lists of CNG stations are available from the following web sites (Note: There are no consistent reporting/registration requirements when new stations are opened so the following sites may be incomplete):

http://www.eere.energy.gov/afdc/fuels/natural_gas_stations.html (U.S. DOE- maintained site of U.S. stations)

<http://www.cngvc.org/ngv/cngvc.nsf/bytitle/fuellocator.htm> (Calif. NGV Coalition site of CA fueling locations)

<http://www.cleancarmaps.com/home/> (WestStart/CALSTART- maintained web site)

It is always a good idea to contact the station prior to your trip to make sure that the information on the station lists noted above is accurate and current. This is especially true if you plan to make a trip that is out of your local area network and when only a very limited infrastructure is in place.

If a CNG fueling site is not available in your immediate area or within reasonable distance from your regularly traveled route to work, school or other frequented location, you may elect to purchase and install a fueling device at your home. Currently, the only home fueling devices available are two types of units from FuelMaker Corporation (<http://www.fuelmaker.com>).

One type of device that is available across the country is the FuelMaker “Q” series vehicle refueling appliance (VRA), the least expensive of which is referred to as the “small Q.” It compresses and dispenses about 0.9 gasoline-gallon-equivalent (GGE) per hour.... This is a “time-fill” fueling device that has no storage other than the storage onboard your vehicle. Gas from the same supply lines that feed your house’s appliances (furnace, water heater, stove, etc) is compressed and stored onboard your vehicle by a device about the size of an outdoor house air-conditioning unit that is installed outdoors, usually adjacent to your garage. Fueling is accomplished overnight or whenever you vehicle is idle and available to attach to the VRA’s supply hose. It is possible to purchase storage and fast-fill dispensing capability from FuelMaker (which provides much more fueling capacity), but this option is not designed for, nor is it cost-effective for most homeowners. A “small Q” with time-fill capability costs about \$9875 + installation. Visit FuelMaker’s website for FMQ dealer contacts by state.

Another FuelMaker device called the Phill was introduced in limited areas of the country several years ago, and has been gradually offered in more markets as demand for it grows and service/supply/installer networks have been established. The Phill is a small home compression/dispensing unit that dispenses about 0.42GGE per hour. It is also a time-fill device, but it has been engineered to be smaller (about the size of a pay telephone box) and installed inside your garage with proper safety-relief venting to the outside. The Phill is priced at approximately \$4500+ installation but this device is available only in very limited areas at this time. Even in states like California where the Phill installation/service network is in place, NGVAmerica suggests that you contact your local gas company FIRST to make sure that adequate gas supplies and service are available. Visit the Phill portion of FuelMaker’s web site to find out IF this device is available in your area and – if so, who is qualified to install it.

Home CNG refueling devices qualify for a federal tax incentive of \$2000 and may qualify for additional state tax incentives or grant subsidies. More information about the available FEDERAL tax incentive is available at the following link: <http://www.ngvc.org/pdfs/FederalInfrastruct.pdf>. For information about potential STATE tax incentives and/or grant subsidies for your home refueling installation, contact your appropriate state authority or search the Internet under “CNG+refueling+tax incentives.”

We appreciate the public’s interest in taking advantage of the clean burning, domestic-energy-secure, imported-oil-displacement, fuel efficient and cost-effective benefits of NGVs. In fact, we are inundated with calls and e-mails requesting assistance. We hope that this document answers most, if not all, your questions. If your question was NOT answered by this document, then e-mail us so we can answer it and then include it in revised versions of this informational document. PLEASE DO NOT CALL US TO ASK WHY AN EPA- OR CARB-CERTIFICATION IS NOT AVAILABLE FOR YOUR VEHICLE OR WHY THE CERTIFICATION PROCESS IS SO TECHNICALLY CHALLENGING OR EXPENSIVE. WE HAVE NO AUTHORITY/JURISDICTION OVER THE PROCESS, NOR DO WE HAVE ANY INFLUENCE IN THESE POLICIES.

Stephe Yborra
Director of Communications & Marketing
NGVAmerica

syborra@ngvamerica.org

Disclaimer: This document was prepared for informational purposes only. It has been made available with the understanding that the publisher is not engaged in rendering legal, accounting, or other professional service. If legal advice or other expert assistance is required, the services of a competent professional should be sought.