

## **FAQs for CNG**

### **1. Who is a CNG consumer?**

A consumer is categorized as CNG consumer when the consumer is using the gas as fuel for conveyance either for personal or business purpose and is refueling their vehicle at the established CNG stations.

### **2. What is CNG?**

CNG stands for Compressed Natural Gas. Natural Gas is compressed to a pressure of 200-250 Kg/cm<sup>2</sup> (g) to significantly reduce its volume, enabling efficient storage and transportation. This compression increases energy density, optimizes vehicle fuel tanks, and ensures consistent gas flow for reliable performance.

### **3. Is CNG safe?**

Yes, it is safe. The properties of CNG make it a safe fuel. It is lighter than air, so in case of a leak it just rises and disperses into the atmosphere. Besides, a high auto ignition temperature of 540 degrees centigrade as against petrol's 280 degrees centigrade, makes it a safe fuel. Also, in case of a leak, if CNG's concentration in the air is less than 5% or more than 15%, the gas will not burn even in the presence of a spark.

### **4. What are the advantages Of CNG over Other Fuel Types?**

Compressed Natural Gas (CNG) offers a cost-effective alternative to petrol and diesel, making it a more affordable fuel option. Additionally, it produces lower carbon emissions than traditional fuels, contributing to a cleaner and more environment friendly energy source.

### **5. Do CNG vehicle have relatively lower Maintenance cost?**

CNG-fueled vehicles tend to have a longer engine lifespan due to reduced contamination of the motor oil. This leads to extended intervals between service visits, enhancing overall maintenance efficiency.

### **6. What is involved in converting a vehicle to a CNG-friendly one?**

All spark-ignited engines can be converted to CNG, but a specially designed conversion kit is required for the purpose. The kit consists of a cylinder to be fixed in the boot of the car and other equipment to allow gas flow into the engine.

### **7. Where is the tank placed in a car?**

The CNG cylinder is fixed in the luggage space of the car. It is fastened with a metal strap so that it does not move while the car is running.

**8. If factory fitted CNG vehicle available?**

Yes. Major commercial vehicle manufacturers like TATA, Mahindra, Maruti Suzuki, Eicher, SML etc. have CNG variants of their popular models. These CNG variants are available for passenger and commercial segment.

**9. Which type of vehicles can be converted to CNG?**

CNG conversion is suitable for all petrol vehicles with carburetor, turbo, injection, and catalytic engines. CNG conversion is also possible for the most common direct injection engines. Moreover, conversion can also be done for trucks.

**10. Can a car, fitted with CNG conversion kit, run on petrol after its CNG gets over?**

Yes, after conversion to CNG, the vehicle continues to be fitted with the petrol carburetor and fuel tank. The vehicle can therefore run on dual fuel, either on CNG or petrol, whenever desired, simply by flicking a switch on the dashboard.

**11. What is the cost of converting a vehicle to a CNG-friendly one?**

The cost of converting a vehicle to CNG depends on its type and make. Broadly, it varies between Rs 25,000 to Rs 55,000 (approximately). For trucks, the conversion cost varies between Rs.5.5 lacs to Rs.6 lacs (approximately).

**12. What are the dimensions and weight of a regular CNG cylinder?**

An empty CNG cylinder with a 50 Litre-water-carrying capacity weighs around 48 kg, with a length of 835 mm and a diameter of 316 mm( this is a reasonable estimate but can vary slightly depending on the manufacturer and materials used). The 50-liter capacity cylinder is the one most regularly used cylinder; along with other cylinder capacities of 45 Litre, 55 Litre, 60 Litre and 65 Litre.

**13. What is the capacity of a cylinder, and mileage from one fill? How does one get to know the quantity of CNG left in the cylinder?**

A cylinder with a 50-liter water-carrying capacity can carry approximately 9 kg of CNG. The average mileage is approx. 25-35 Km/Kg for passenger cars. An electronic fuel gauge fitted on the dashboard as part of the conversion kit indicates the quantity of CNG left in the cylinder.

**14. What is the pressure of CNG in a cylinder? Is refueling of a cylinder safe, given the pressure?**

CNG cylinders are designed and built in such a way so as to withstand high pressure. The maximum pressure in a CNG cylinder is around 200 kg/cm<sup>2</sup> (g). CNG cylinders are safe as they are manufactured as per specific requirements, tested before use, and duly approved in accordance with the necessary specifications and standards. Moreover, they are provided with a Pressure Relief Device (PRD) that consists of a fusible plug and a burst disc that ruptures in case of inadvertent high pressure and temperature.

**15. Does CNG have any harmful effect on the engine?**

No, CNG does not have any harmful effect on the engine.

- Its distinct features do not contaminate or dilute crankcase oil, giving a new lease of life to the engine.
- The absence of any lead content in CNG helps avoid lead fouling of plugs, thereby enhancing plug life.
- One of the other important benefits of CNG is that upon entering the engine in the form of a gas (and not as a spray or mist like other fuels), it doesn't disturb the presence of lubricating oil in the engine and reduces chances of wear and tear.

**16. How does the performance of a CNG-converted vehicle compare with that of a petrol-run vehicle?**

CNG provides easy starting, reliable idling and smooth acceleration. The acceleration of a CNG vehicle is a bit slower, which is due to a power loss of 5-15%, however this can be minimized by proper tuning on CNG like advancing the spark timing to take advantage of the high-octane rating of the fuel.

**17. In which locations CNG stations are available in my city?**

*(List to be provided by the entity with links of location on maps).*

**18. Where can I find the current CNG rate in my city?**

The current CNG prices are displayed at CNG stations and the company's website. You may also refer the following link to get the CNG price in your area.

<https://pngrb.gov.in/eng-web/consumer-awareness.html>