

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
UNSTARRED QUESTION No. 662
TO BE ANSWERED ON 06.02.2023

Research on CNG

662. SHRI RAJENDRA DHEDYA GAVIT:

Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

- (a) whether any extensive indigenous research has been conducted to establish that CNG is a green fuel and does not cause environmental pollution in comparison to petrol/diesel;
- (b) if so, the details thereof;
- (c) whether it is a fact that CNG produces ultrafine particles and ammonia, especially in urban areas which could be hazardous to human health; and
- (d) if so, the details thereof and whether it is time to review the use of CNG for running vehicles in densely populated urban areas?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI ASHWINI KUMAR CHOUBEY)

(a) to (d)

Automotive Research Association of India (ARAI) had conducted testing of various categories of in-service vehicles in year 2018 for generation of emission factors for post-2005 vehicles. The study was funded by Department of Heavy Industry (DHI), Government of India. The test matrix included passenger cars, Multi Utility Vehicle (MUV) and buses with gasoline, diesel and CNG fuels. The emission factors for PM, NO_x, HC, CO and CO₂ for vehicles running on petrol, diesel & CNG are placed at Annexure-I.

Annexure-I

	PM (g/km)	NO_x (g/km)	CO (g/km)	HC (g/km)	CO₂ (g/km)
Passenger cars (Gasoline) <1600 CC BSIII	0.001	0.0395	0.9838	0.0948	138.9405
Passenger cars (Gasoline) <1600 CC BSIV	0.0021	0.0683	0.8253	0.0790	113.7857
Passenger cars (Diesel) <1600 CC BSIII	0.0213	0.5483	0.3837	0.0753	137.6147
Passenger cars (Diesel) <1600 CC BSIV	0.0228	0.4113	0.2988	0.0575	139.8605
Passenger cars (CNG) <1600 CC BSIII	0.0007	0.7863	3.4340	0.6790	135.7137
Passenger cars (CNG) <1600 CC BSIV	0.0007	0.0340	1.0205	0.1880	101.5885
MUV Diesel <3000 CC BSIV	0.0493	0.4787	0.4740	0.0493	222.2923
MUV CNG <3000 CC BSIV	0.0015	0.4070	1.3447	0.4273	132.7353
HCV Diesel Bus >5000 CC BSIII	0.4820	5.1715	4.7345	0.2118	711.1170
HCV CNG Bus >5000 CC BSIII	0.0225	15.1555	9.2210	7.8015	632.5695