

**LOK SABHA**  
**UNSTARRED QUESTION No. 1854**  
TO BE ANSWERED ON 14<sup>th</sup> December, 2023

**EXPLORATION OF ALTERNATE FUELS**

1854. DR. KRISHNA PAL SINGH YADAV:  
DR. SUJAY RADHAKRISHNA VIKHE PATIL:  
DR. HEENA VIJAYKUMAR GAVIT:  
SHRI UNMESH BHAIYYASAHEB PATIL:  
DR. SHRIKANT EKNATH SHINDE:  
PROF. RITA BAHUGUNA JOSHI:

पेट्रोलियम और प्राकृतिक गैस मंत्री

Will the Minister of PETROLEUM AND NATURAL GAS be pleased to state:

- (a) the steps taken by the Government to explore alternate fuels including ethanol blended fuel;
- (b) whether the Government has chalked out a plan to increase the use and productivity of alternate fuels, *i.e.*, ethanol blended fuel;
- (c) if so, the details thereof and if not, the reasons therefor;
- (d) whether increase in alternative fuel use would provide us energy security and reduce carbon emissions; and
- (e) if so, the details thereof?

**ANSWER**

पेट्रोलियम और प्राकृतिक गैस मंत्रालय में राज्य मंत्री  
(श्री रामेश्वर तेली)

**MINISTER OF STATE IN THE MINISTRY OF PETROLEUM & NATURAL GAS**  
**(SHRI RAMESWAR TELI)**

(a) to (c): To promote the use of alternate fuels across the country various programmes such as Ethanol Blended Petrol (EBP) Programme, wherein Oil Marketing Companies (OMCs) sell petrol blended with ethanol; Biodiesel blending programme wherein biodiesel is blended with diesel; and Sustainable Alternative towards Affordable Transportation (SATAT) initiative wherein Compressed Bio Gas (CBG) is marketed along with Compressed Natural Gas (CNG) have been taken up.

Further, the Government has notified the use of hydrogen as automotive fuel for fuel cell vehicles on 16th September, 2016. The specifications of Hydrogen as a reference fuel for Internal Combustion Engine BS IV vehicles have also been notified on 16th December, 2022.

Government, since 2014, has taken several measures to increase production and utilization of alternate fuels including ethanol in the country which includes permitting procurement of ethanol produced from other non-food feedstock besides molasses, like cellulosic and lignocelluloses materials like cotton stalk, wheat straw, rice straw, bagasse, bamboo etc. including petrochemical route, subject to meeting the relevant BIS standards; allowing use of sugarcane and food grains (maize and surplus stocks of rice with Food Corporation of India) for conversion to ethanol; administered price mechanism for procurement of ethanol under the Ethanol Blended Petrol (EBP) Programme including enhanced ex-mill price of ethanol from sugarcane feedstock year on year from ethanol supply year 2017-18; lowered GST rate to 5% on ethanol for EBP Programme; amendment in Industries (Development & Regulation) Act for free movement of ethanol across states for blending; interest subvention scheme for enhancement and augmentation of ethanol production capacity in the country.

Government has also notified the “Pradhan Mantri JI-VAN (Jaiv Indhan - Vatavaran Anukool fasal awashesh Nivaran) Yojana” for providing financial support for setting up Second Generation (2G) ethanol projects in the country using lignocellulosic biomass and other renewable feedstock.

(d) & (e): Increase in alternate fuel use is expected to provide energy security and reduce carbon emission. As per the ‘Roadmap for Ethanol Blending in India 2020-25’, the estimated requirement for 20% ethanol blending in Ethanol Supply Year (ESY) 2025-26 is approximately 1016 crore litres and this quantity of petrol will be replaced by ethanol. Further, the anticipated emission benefits with E10 & E20 fuels compared to neat petrol are as under:

<b>Emission</b>	<b>Gasoline</b>	<b>Two-wheelers</b>		<b>Four-wheelers</b>	
		<b>E10</b>	<b>E20</b>	<b>E10</b>	<b>E20</b>
Carbon Monoxide	Baseline	20% lower	50% lower	20% lower	30% lower
Hydrocarbons	Baseline	20% lower	20% lower	20% lower	20% lower

(Source: Roadmap for Ethanol Blending in India 2020-25 published in June, 2021)

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