

GOVERNMENT OF INDIA
MINISTRY OF PETROLEUM AND NATURAL GAS

RAJYA SABHA
UNSTARRED QUESTION No. 3013
ANSWERED ON 27.03.2023

PRICE MECHANISM FOR ETHANOL

3013. DR. ASHOK KUMAR MITTAL:

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

- (a) the pricing mechanism for ethanol used in blending, and how does it do in comparison to the pricing of regular petrol;
- (b) the measures taken to ensure the availability and quality of ethanol for blending;
- (c) the impact ethanol blending has on the environment, including air pollution and greenhouse gas emissions;
- (d) the manner in which the benefits of ethanol blending are being passed on to consumers, particularly in terms of reducing the cost of fuel and reducing dependence on imported oil; and
- (e) the impact of ethanol blending on the automobile industry, including the performance and maintenance of vehicles?

ANSWER

THE MINISTER OF STATE IN THE MINISTRY OF PETROLEUM & NATURAL GAS

(SHRI RAMESWAR TELI)

(a): In line with the "Ethanol procurement policy on a long term basis under Ethanol Blended Petrol (EBP) Programme", the ex-mill price of ethanol derived from sugarcane based raw materials is declared by the Government and ex-mill price of ethanol from damaged and surplus food grains is decided by Public Sector Oil Marketing Companies (OMCs). The price of petrol has been market determined with effect from 26.06.2010. Since then, OMCs take appropriate decision on pricing on petrol based on international product prices and domestic market conditions.

(b): Government, since 2014, has taken several measures to increase the availability of 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 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.

Oil Marketing Companies (OMCs) had floated an Expression of Interest (EoI) for signing long term offtake / bipartite agreement with upcoming dedicated ethanol plants in ethanol deficit states for supply of denatured anhydrous ethanol in August, 2021 to meet the ethanol requirement for 20% blending.

Through this EoI, OMCs have signed long term offtake agreements (LTOA) with 131 shortlisted Dedicated Ethanol Plant proponents in various states which is estimated to add a production capacity of approximately 757 crore litre per annum of ethanol in the next few years.

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.

OMCs procure ethanol from ethanol manufacturers as per Bureau of Indian Standards (BIS) specification. OMCs adhere to the Industry Manual on Operations, Quality Control and Safety for Ethanol Doped Motor Gasoline and its amendments from time to time.

(c): The anticipated emission benefits with E10 & E20 fuels compared to neat petrol are as under:

Emission	Gasoline	Two-wheelers		Four-wheelers	
		E10	E20	E10	E20
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)

(d): Public Sector Oil Marketing Companies (OMCs) have saved 433.6 crore litres of petrol on account of ethanol blending during the Ethanol Supply Year (ESY) 2021-22 with an approximate savings of more than Rs. 20,000 crore of foreign exchange. Ethanol-blended fuel is not only environment friendly but also has higher Research Octane Number (RON) due to addition of ethanol. Ethanol is added as oxygenate and hence increases oxygen content for combustion, leading to leanment of combusted mixture which increases the efficiency of the engine considerably.

(e): According to the Roadmap for Ethanol Blending in India 2020-25, prepared by an inter-Ministerial Committee, Society of Indian Automobile Manufacturers (SIAM) has assured that they would gear up to supply compatible vehicles. E20 material compliant and E10 engine tuned vehicles may be rolled out all across the country from April 2023. These vehicles can tolerate 10% to 20% of ethanol blended gasoline and also give optimal performance with E10 fuel. Vehicles with E20 tuned engines can be rolled out all across the country from April, 2025. These vehicles would run on E20 only and will provide higher performance. However, the cost of E20 compatible vehicles is expected to be slightly higher than the cost of ordinary vehicles.
