

Reply to Parliament Question No 6418 for 13.03.2025 for Lok Sabha regarding “Enhancing Ethanol Production and Blending in India” in respect of Numaligarh Refinery Limited (NRL):

Q no. (a): the steps taken/being taken by the Government to increase ethanol production in India, particularly from non-food sources such as agricultural waste and municipal solid waste;

Reply: Ministry to reply.

[NRL is executing a bio-refinery project in the state of Assam through its Joint Venture Company Assam Bio Ethanol Pvt. Limited (ABEPL). NRL owns 50% share in the company and remaining 50% equity is shared between two M/s Fortum BV3 and M/s Chempolis. M/s Chempolis is also the technology provider for the bio-refinery. Bio-refinery will produce 50 TMTPA of Advance bio-fuel (ethanol) from 300 TMTPA of dry bamboo. The first trial run has been conducted successfully to establish conversion of bamboo to alcohol. During the trial run, bamboo was successfully processed through the digester, bamboo washing section, enzymatic hydrolysis and fermentation sections. The 2G bio-ethanol project at Numaligarh is set to become fully operational by the first quarter of 2025-26. It is envisaged that Ethanol will substitute petrol to the same extent and thereby reduce import of crude required for production of petrol in the country.]

Q no. (b): the current status of ethanol blending in petrol and the targets for the next three years, year-wise;

Reply: Ministry to reply.

Q no. (c): the criteria by which the Government is supporting the development of 2G and 3G ethanol technologies and the incentives are being offered to encourage investment in these areas;

Reply: Ministry to reply.

[NRL’s bio ethanol has been granted of Rs. 150 crore by Central Govt. under Pradhan Mantri JI-VAN yojana.]

Q no. (d): the measures taken/being taken by the Government to address the challenges faced by ethanol producers, including pricing, transportation and storage issues;

Reply: Ministry to reply.

Q no. (e): the criteria by which the Government coordinating with State Governments, oil marketing companies, and other stakeholders to promote ethanol production and blending in India; and

Reply: Ministry to reply.

Q no. (f): the estimated impact of increased ethanol blending on India's energy security, greenhouse gas emissions and farmer incomes?

Reply: Ministry to reply.

[The bio-refinery project aims to reduce greenhouse gas emissions, decrease crude oil import dependency, save foreign exchange, provide income to marginal farmers, and create local employment. The 2G bio-refinery in Northeast India will utilize the region's abundant bamboo, offering income opportunities for farmers and jobs in bamboo handling. ABEPL is securing long-term bamboo supply agreements with growers and developing bamboo-rich clusters near the project. Over 50 small-scale chipping units involving local entrepreneurs will be established for processing and storage. The model emphasizes direct procurement to protect farmers from middlemen and employs a digital supply chain for transparency and efficiency.]

Note for Supplementary:

Numaligarh Refinery Limited (NRL) is a Public Sector Enterprise with a 3.0 MMTPA petroleum refinery at Numaligarh in Golaghat district of Assam. Present shareholding pattern of NRL is Oil India Limited (OIL) – 69.63%, Govt. of Assam (GoA) – 26% and Engineers India Ltd (EIL) – 4.37%.
