Govt Exploring Isobutanol Blending with Diesel

September 12, 2025 • vajiramandravi.com

Isobutanol Blending Latest News

- The government is exploring **isobutanol blending with diesel** after ethanol blending trials failed, with ARAI conducting tests to ensure compatibility and support farmer incomes.

Introduction

- India's biofuel sector is witnessing a shift in its approach as the government explores alternatives to **ethanol blending** with diesel.
- Union Minister for Road Transport and Highways, **Nitin Gadkari**, recently announced that the Automotive Research Association of India (ARAI) is conducting trials to blend 10% isobutanol with diesel.
- This development comes after ethanol-diesel blending trials were found to be unsuccessful.
- The move signals India's determination to diversify its energy mix, enhance farmer incomes, and reduce reliance on conventional fossil fuels.

Background on Ethanol Blending

- Ethanol blending has been one of the cornerstone policies in India's biofuel roadmap.
- While ethanol blending in petrol has been relatively successful, reaching 20% ahead of schedule, it has faced technical challenges when used with diesel.
- Ethanol's corrosive nature and compatibility issues with diesel engines limited its large-scale adoption in this segment.
- Despite these hurdles, ethanol blending has benefited farmers significantly.
- With **corn being used as a major raw material for ethanol production, farmers have earned over Rs. 42,000 crore**.
- The prices of corn have risen from Rs. 1,200 per quintal to Rs. 2,600-2,800 per quintal since the implementation of the policy, strengthening rural incomes.

Exploring Isobutanol as an Alternative

- Isobutanol, an alcoholic compound widely used as a solvent in industries like paints and coatings, is now being evaluated as a potential biofuel.
- Currently, **trials are underway to test a 10% blend of isobutanol with diesel**.
    - Unlike ethanol, isobutanol has properties that may make it more compatible with diesel engines.
    - It also holds promise as a standalone biofuel or in combination with compressed natural gas (CNG) in agricultural machinery and tractors.
- This shift highlights the government's commitment to innovation in the biofuel sector.
- By diversifying fuel sources, India aims to reduce import dependence, support energy security, and encourage sustainable farming practices.

Policy Push for Farmers and the Sugar Industry

- Union Minister for Consumer Affairs, Food, and Public Distribution, **Pralhad Joshi**, emphasised the government's efforts to safeguard farmer interests while ensuring the viability of sugar mills.
- Measures like clearing over 96% of payments for the current sugar season and reducing cane dues to record lows were highlighted.
- He further encouraged ethanol producers to increase output for both domestic use and exports.
- He urged the industry to adopt advanced technologies, diversify into second and third-generation ethanol using bamboo and agricultural residues, and expand distilleries for higher production.

Industry Concerns and Recommendations

- At the **India Sugar and Bio-Energy Manufacturers Association** (ISMA) conclave, industry representatives highlighted key challenges.
- The President of ISMA urged the government to align the fair and remunerative price (FRP) of sugarcane with rising procurement costs and revise the minimum support price (MSP), which has remained unchanged since 2019.
- He also advocated for increasing the permissible sugar export quota by 2 million tonnes for the 2025-26 season. This, he argued, would help mills secure better prices and expand their market reach.

Growth in Sugar and Ethanol Production

- India’s sugarcane production has risen by 40% over the last decade, with sugar output increasing by 58%.
- According to preliminary ISMA estimates, **gross sugar production is expected to grow by 20% year-on-year, reaching 34.9 million tonnes in the current season**.
- This growth underscores the importance of integrating the sugar sector with India’s energy policies to ensure better utilisation of resources and farmer benefits.

Source: TH
