

Date	Price of Indian Basket Crude Oil (in\$/bbl.)	Date	Price of Indian Basket Crude Oil (in\$/bbl.)
27 May 2014	107.792	16 June 2014	110.419
28 May 2014	107.514	17 June 2014	110.311
29 May 2014	107.592	18 June 2014	111.247
30 May 2014	107.141	19 June 2014	111.942
02 June 2014	106.885	20 June 2014	111.857
03 June 2014	106.251	23 June 2014	111.754
04 June 2014	106.749	24 June 2014	110.958
05 June 2014	105.689	25 June 2014	110.864
06 June 2014	106.433	26 June 2014	110.656
09 June 2014	106.641	27 June 2014	110.418
10 June 2014	106.733	30 June 2014	109.755
11 June 2014	107.131	01 July 2014	109.551
12 June 2014	108.518	02 July 2014	109.390
13 June 2014	110.542	03 July 2014	108.128

Note: The composition of Indian Basket of crude represents Average of Oman & Dubai for sour grades and Brent (Dated) for sweet grade in the ratio of 69.9:30.1.

Mixing of 10 per cent ethanol in petrol

†359. SHRIMATI KANAK LATA SINGH : Will the Minister of PETROLEUM AND NATURAL GAS be pleased to state:

- (a) whether it is a fact that Government has allowed mixing of 10 per cent ethanol in petrol;
- (b) if so, whether Government has sought any opinion from experts that this ethanol mixed petrol would not cause any damage to the engines; and
- (c) if so, the details thereof?

THE MINISTER OF STATE OF THE MINISTRY OF PETROLEUM AND NATURAL GAS (SHRI DHARMENDRA PRADHAN) : (a) Yes, Sir. The Government, *vide* its Gazette Notification dated 02.01.2013, has directed Oil Marketing Companies (OMCs) to sell Ethanol Blended Petrol (EBP) with percentage of ethanol upto 10% as per the Bureau of Indian Standards (BIS) Specification to achieve 5% ethanol blending across the country as a whole.

†Original notice of the question was received in Hindi.

(b) and (c) A Study was conducted by Indian Oil Corporation Ltd. (R&D) during 2009-10 regarding suitability and evaluation of 10% ethanol blend on petrol vehicles for performance and material compatibility (metallic components). The following are the major observations :

- (i) No drivability problem was observed with the use of 10% EBP in any of the vehicles covered under the programme.
- (ii) the passenger cars had no starting problem with both the fuels *i.e.* normal petrol and 10% EBP at 5 deg C and 45 deg C.
- (iii) Used Engine oil sample analysis have not indicated any abnormal deterioration or wear of engine components.
- (iv) Visual inspection of the engine components has shown no significant change in cleanliness of the engine parts with use of 10% EBP.

Import of Shale Gas

360. SHRI TARUN VIJAY : Will the Minister of PETROLEUM AND NATURAL GAS be pleased to state:

- (a) what are the possibilities of importing shale gas from USA and other countries;
- (b) whether Government is working to explore shale gas in the country; and
- (c) if so, the details of the present status and future plans?

THE MINISTER OF STATE OF THE MINISTRY OF PETROLEUM AND NATURAL GAS (SHRI DHARMENDRA PRADHAN) : (a) Indian oil and gas companies are continuously looking for opportunities abroad for tying up equity oil and gas, including shale gas acreages, and/or importing hydrocarbons, including LNG.

GAIL has taken 20% participating interest in a shale gas asset in the Eagle Ford basin in United States of America (USA). Currently, the gas production from these acreages is being sold in local market. GAIL has contracted 5.8 MMTPA of LNG from USA and deliveries will commence from the last quarter of 2017.

Indian Oil Corporation (IOCL) has acquired 10% interest in integrated (upstream and LNG) Pacific North West LNG project in British Columbia, Canada. The project will produce natural gas from its shale gas acreages. IOCL's share of 1.20 MMTPA of LNG is slated for supply from 2019 onwards.

(b) The Government has, on 14.10.2013, notified the policy guidelines for exploration and exploitation of shale gas and oil by National Oil Companies (NOCs) in their onland PEL (Petroleum Exploration Lease)/PML (Petroleum Mining Lease) blocks awarded under the nomination regimes.