

## **Green Initiatives undertaken by Ministry of Petroleum & Natural Gas**

### ***Auto Fuel Policy:***

BS-IV auto fuel was introduced in 13 identified cities on 1st April, 2010 and is now extended to 50 more cities, with emphasize on most polluted cities, subject to availability of fuel and logistics constraints. It has also been decided that it will be extended in entire country by 1st April, 2017 in phases.

As per Auto Fuel Vision and Policy 2025 with effect from 1<sup>st</sup> April, 2015, the whole of Northern India covering J&K, (except Leh/Kargil), Punjab, Haryana, H.P., Uttrakhand, Delhi and the bordering districts and parts of Rajasthan and Western UP have been covered. From 1<sup>st</sup> April, 2016, all of Goa, Kerala, Karnataka, Telengana, Odisha and the UTs of Daman & Diu, Dadra Nagar Haveli and Andaman & Nicobar will be covered. Part of Maharashtra (Mumbai, Thane and Pune Districts) will be covered. Part of Gujarat (Surat, Valsad, Dangs and Tapi districts) will also be covered. From 1<sup>st</sup> April, 2017 rest of the cities will be covered.

### ***Bio- Fuel Policy:***

Oil Marketing Companies have been mandated to procure ethanol to achieve the mandatory requirement of 5% ethanol blending. In order to improve the availability of ethanol, the Government has decided to fix the delivered price of ethanol in the range of Rs.48.50/litre to 49.50/litre, depending upon the distance of distillery from the depot/installation of OMCs.

Similarly in order to promote Bio Diesel, OMCs have been directed to purchase bio diesel, meeting the prescribed BIS standard, at a uniform price, as may be decided by the OMCs from time to time, for blending with High Speed Diesel to the extent of 5%, at identified 20 purchase centres across the country. OMCs have reviewed the procurement price of bio-diesel at various purchase centres and with effect from 7<sup>th</sup> November 2014, the declared price of bio-diesel is Rs.41/litre. Moreover, it has been decided to allow the direct sale of bio-diesel (B100) to all consumers by private manufacturers, their authorized dealers and Joint Ventures of OMCs authorized by Ministry of Petroleum & NG.

## **CNG:**

In the year 2007, Government of India has established Petroleum & Natural Gas Regulatory Board (PNGRB) under the PNGRB Act 2006. Under the act, PNGRB grants the authorization to the entities for developing City Gas Distribution network in a specified Geographical Areas (GA) of the country. CGD network supplies gas to four distinct segments viz Compressed Natural Gas (CNG) predominantly used as auto-fuel and Piped Natural Gas (PNG) used in domestic, commercial and Industrial segments. At present, only authorized CGD entities under the PNGRB Act, 2006 can set up CNG stations in their respective Geographical Areas. PNGRB has, so far, held 5 rounds of bidding for awarding authorization to develop CGD networks. With these bidding rounds, there are now 58 GAs which have been covered under CGD network in 15 States and UTs of the country. PNGRB has planned to commence the 6<sup>th</sup> round of CGD bidding, almost all gas in the country having existing natural gas pipeline connectivity would be covered. Country is having 1009 CNG stations catering to approximately 23 lakh vehicles. Government has placed CNG (transport) along with PNG (Domestic) on top priority in domestic gas allocation. Presently the entire requirement of CGD entities for PNG (domestic) and CNG (transport) is being met through domestic gas at uniform base price based on preceding six months consumption data. Further, M/o PNG has allowed GAIL to supply 10% additional domestic gas in order to meet the daily fluctuation of PNG & CNG demand.

## ***Petrol & Diesel Pricing:***

The price of petrol has been market-determined since 26<sup>th</sup> June, 2010 and prices of diesel also have been market determined since 19<sup>th</sup> October, 2014.

## ***Shale Oil & Gas:***

In order to harness hydrocarbon resources trapped in Shale layers, Policy guidelines for Exploration and Exploitation of Shale Gas and oil by NOCs under nomination regime was announced on 14.10.2013. Oil and Natural Gas Corporation (ONGC) and Oil India Ltd. (OIL) has already identified and permission granted for 50 and 5 blocks respectively under their Petroleum Exploratory Lease (PEL)/ Mining Lease (ML) acreages in the phase-I, spanning over 3 years. ONGC has in the meantime drilled 14 wells for Shale

Gas exploration in its acreages. The result obtained are being analyzed. Oil has under taken detailed G & G studies in 5 blocks identified by them in their PEL/ML acreages.

#### **Measures taken by upstream companies:**

Natural Gas generates 40% less Co<sub>2</sub> as compared to coal, and about 30% less to heavy oil. In the upstream sector, wastage of gas takes place primarily due to (a) gas flared during the production testing in a well; and (b) technical flaring of gas done in oil and gas processing plants. There has been steady decline in natural gas flaring since base year 1990-91. As a result of various corrective measures, gas flaring has considerably come down to 872 million cubic meters of gas per annum flared during 2014-15, as against around 5130 million cubic meters flared during 1990-91.

For minimizing wastage in gas transmission networks, operational parameters of gas network for major global natural gas companies have been studied and benchmarking has been done accordingly. At present the margin of wastage targeted is in the range of +/-0.3%, and strict monitoring is being done.

#### **Measures taken by downstream companies:**

Solarisation of retail outlets has been taken up by oil marketing companies for lighting their retail outlets: So far, 2140 retail outlets have been powered by solar energy. The target is to increase the number to 7200 retail outlets by 31<sup>st</sup> March 2017.

All the refineries are certified for Environmental Management System conforming to ISO-14001 standard and are audited periodically for compliance. Specific measures taken by refineries to mitigate pollution and minimize impact on the surrounding environment such as Waste Water Control, Water Conservation, Gaseous Emission Control, Solid Waste Management, Control of noise pollution etc.

#### **Measures taken by Petroleum Conservation Research Association (PCRA):**

PCRA is involved with conservation of petroleum products in the major sectors of economy like transport, industry, households and agriculture through direct technical assistance, research & development, educational & training programs and mass awareness campaigns. PCRA activities include conservation of various energy sources, evaluation and commercialization of efficient equipment, training of drivers.

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