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Sub: Lok Sabha: Diary No. 356 dated 08.09.2020 be answered on 14.09.2020 regarding upgradation of Technologies of Refineries

- Q (a) whether it is a fact that Indian Refineries are still operating with old technologies and are facing high operating cost;
- Q (b) if so, the steps taken to modernize the refineries and to improve the technology for more efficiency;
- Ans.(a&b): Not so; Indian Refineries have been continuously upgrading the process technology in line with international trend and also to meet the fuel quality upgradation programme. The Indian refineries have been continuously benchmarked with the global players and have taken steps to improve performance, reduce operating cost and energy consumption. These include various energy conservation measures, efficiency improvement of equipment, use of latest generation catalyst, use of advanced instrumentation & control systems, enlargement of crude basket and flexibility to process variety of crudes including heavier crudes, rationalisation/replacement of old and inefficient small units with modern large units and integration with Petrochemicals for value addition. The newer refineries are fairly complex and compete with the best in the world.
- Q (c) Whether the logistic cost for the refineries is high compared to other developed countries;
- Q (d) If so, Whether any strategy has been worked out to reduce the logistic cost;
- Ans.(c&d): The logistics cost for refineries depends upon the location (inland or coastal) and the proximity of Source of Crude Oil and product markets. Most of the Indian Refineries are coastal and have well developed pipeline system for receipt of crude as well as supply of products. The landlocked refineries are well connected through cross country pipeline for receipt of crude oil. Efforts are further being made to increase the pipeline network in the country.
- Q (e) The efforts made so far to make the refineries top ranking in the World?
- Ans.(e): The Indian refineries have been continuously participating in the benchmarking study with the global players and have taken several steps to improve performance.

Benchmarking study has revealed improvement in Energy Intensity Index (EII) by 23 points during last 10 years by 15 PSU refineries. Further, all PSU refineries have achieved better Performance than World's Best EII peer Group in the process fired furnace efficiency category.

Based on these benchmarking studies, the following areas have been identified for improvement and are at various stages of improvement;

- Operational Availability
- Stream Sharing
- Reduction of water footprint



Indian refineries have accorded top priority to reduce the energy consumption through various energy conservation measures. The refinery sector has also been included in PAT (Perform Achieve & Trade) of Govt. of India. Under this scheme, targets have been assigned to Refineries for reduction of Specific Energy Consumption.

New parameter on Operational Availability has been included in performance monitoring through MoU.

For overall performance improvement of PSU refineries, studies co-ordinated by CHT are being undertaken through global consultants. The Performance Improvement Study for 7 PSU refineries is in progress currently and the balance refineries are planned to be taken up shortly.

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