IOCL Launches India's First Reference Fuel

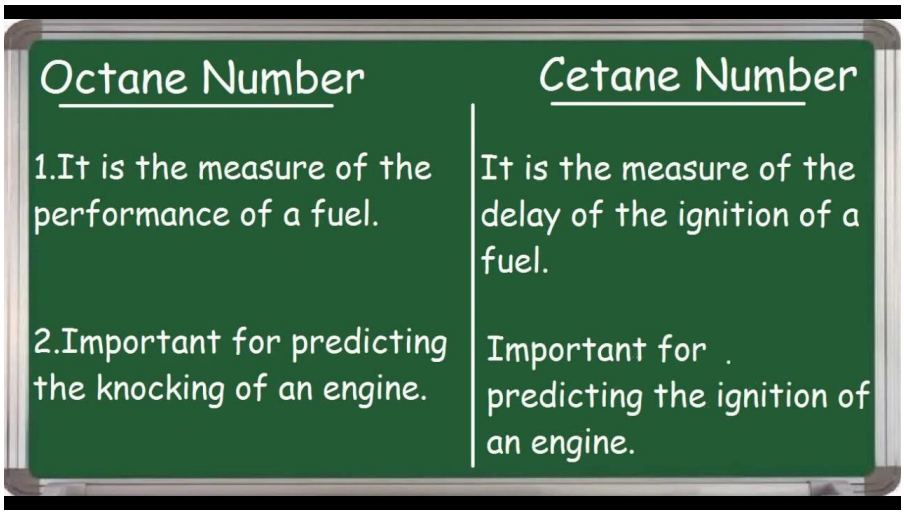
Why In News

- In a major milestone for the nation, Petroleum and Natural Gas Minister Hardeep Singh Puri launched **India's first home-produced Reference Fuel** in New Delhi.
- "The Launch of Reference Fuels produced by IndianOil's Paradip & Panipat Refineries, utilizing the intellectual talent available at IndianOil's Research & Development Centre, is a dynamic achievement".

Reference Fuel

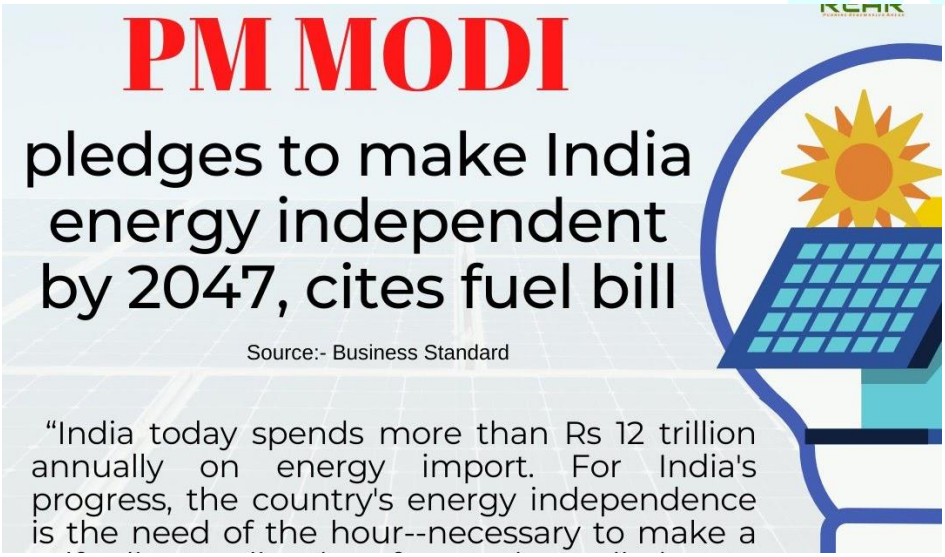
- IOCL launches India's first gasoline, diesel reference fuel Reference fuels (gasoline and diesel) are **premium high-value products**, used for calibration and testing of vehicles by auto OEMs and organizations involved in testing and certification in the automotive field.
- Reference Fuel is used for developing engines and assessing its performance. The regular fuel has an octane number of 87, but premium fuel has an octane number of 91. Reference grade fuel comes with a **97 octane number**.
- The octane number is nothing but a unit to **measure the ignition quality** of petrol or diesel.

- For vehicle testing purposes, the fuel has to be of a higher grade than regular or premium petrol and diesel.



How It Will Be Beneficial To India

- Its introduction is an important step towards **atmanirbharta** in the fuel and energy sector. This puts India into an **exclusive club of reference fuel producers** and is in line with international benchmarks.
- This achievement not only **reduces India's dependence on imports** but also catapults India's energy industry to select global players armed with exclusive competencies.

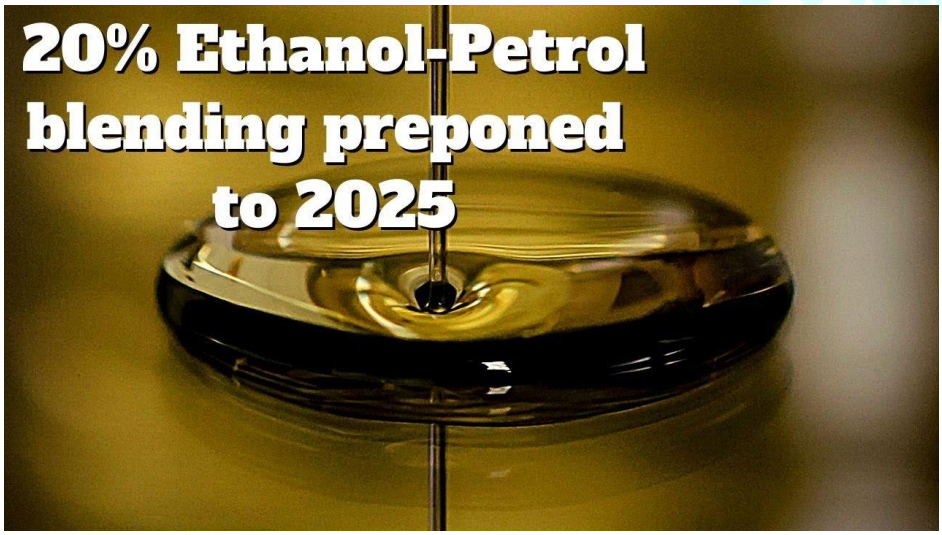


- The imported '**reference' fuel comes for Rs 800-850**. Producing it domestically will cut its cost to around **Rs 450 a litre.**
- The Minister said this is part of PM Modi's vision of transforming India into an **'energy-independent' nation by 2047**.

- **IOCL has established** facilities for production of gasoline reference fuels, with available grades of E0, E5, E10, E20 and E85, at its Paradip refinery and diesel reference fuel (B7 grade) at Panipat refinery.

India's Energy Independent Pathway

- The strategy guided by Prime Minister Shri Narendra Modi's vision of transforming India into an '**energy-independent' nation by 2047**, includes
- Diversification of **energy supplies**
- Increasing **India's exploration** and Production footprint
- **Alternate energy sources** and meeting energy transition through Gas based economy
- **Green Hydrogen** and EVs.
- The Minister also mentioned about the **Ministry's efforts** in the direction of clean energy especially the Bio-fuels section, transition to BS-VI fuels, and introduction of EV charging stations, Sustainable Aviation Fuel, Ethanol blending, and Hydrogen fuels.
- Also noted moving the ambitious target of achieving **20 percent ethanol blending** from 2030 to 2025 and the sale of E20 blended fuel at over 5,000 petrol retail outlets.



- India's energy independence pathway would involve the **power sector installing** more than 500 GW of non-fossil electricity generation capacity by 2030, a goal already announced by the government, followed by an 80 percent clean grid by 2040 and 90 percent by 2047.

- It says that nearly **100 percent of new vehicle sales could be electric by 2035.** Heavy industrial production could shift primarily to green hydrogen and electrification, it said.
- Most of the **lithium needed** (estimated 2 million tons by 2040) for manufacturing new electric vehicles and grid-scale battery storage systems could be produced domestically using newly discovered reserves.