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India needs to expand its energy basket and strategical energy policy by adopting more integrated approach.

Discuss.

India recently released 5 million barrels of oil from its strategic petroleum reserves to adjust fluctuating prices. India is at crossroads towards energy strategy.

Expanding energy basket

with coal contributing 53% of energy mix solar contributes 48 GW and wind 37 GW apart from solar and wind India can harbour

① Hydrogen energy

Green electricity can be used in hydrolysis to obtain green hydrogen and can be used in vehicles, green grids, gas heating.

② Geothermal - 10,000 MW - potential

Geothermal wells dug, can carry steam and hot water to drive turbines and generate electricity.

③ Ocean energy
- such as wave, tidal, OTEC can be harnessed.

④ National Ethanol Blending Program and
flex fuels can reduce fossil fuel burdens.

Integrated approach

A framework towards net zero sectorwise is crucial to attain the energy targets.

Expanding strategic petroleum reserves can act as cushion during shocks. 4.5 million metric ton reserve notified at Chandikhole for example.

Address the energy trilemma - energy security, energy equity and environment sustainability.

Proper integration of distributed energy supply and market creation for renewable energy is needed.

Thus the energy efficiency approach of India will help to achieve SDG-7 - affordable clean energy and SDG-12 responsible consumption and production.