

Q:- With solar and wind now being the cheapest sources of electricity, India must take leadership to join industrialised nation in becoming net carbon neutral.

People across the world are experiencing extreme climatic change impacts. Getting to zero carbon emissions at the earliest is imperative. The UK and France have, by legislation, decided to become

- net carbon neutral by 2050.

India is facilitating the national commitment for Paris agreement. It setting up the International Solar alliance. National Solar Mission already achieved its target of 20,000 MW of solar power by 2020-22. Recently that India would take renewable energy capacity to 450,000 MW.

● NET CARBON NEUTRAL → ACHIEVING FOR ELECTRICITY:-

1. Electricity generation is the largest source of carbon emission in India, with 72% of electricity being generated by burning coal.

1.1 Germany is already getting 46% of its electricity from renewable sources.

1.2 India's real challenge is to get electricity when sun is not shining and storage is the solution.

1.3 To reduce the cost, pump storage plant is the good one. For eg:- Tehri dam

1.4. India could start the ^{few} large storage plants like China, with competitive [^]tariff bids $\rightarrow$ helped lower costs for conventional solar power.

2. Transport $\rightarrow$ next large contributor to CO₂ emission.

2.1 Electric vehicles have zero carbon emission which helps the country for net carbon neutrality.

2.2 Overhead electric cables on highways ~~and~~ that help hybrid trucks and as normal hybrid otherwise.

2.3 Rapid ~~re~~ charging network including office, apartments $\rightarrow$ helps to reduce carbon emission and good commercial sense.

3. Other Sectors: - Steel, cement and petrochemical have technological challenges along with cost and competitiveness issues in moving towards zero carbon emissions. Those sectors need innovative idea. ~~to~~

Indian industry is becoming more energy efficient and would be well poised to move towards lower carbon emissions along with global industry. For India to be among the first countries to become net carbon neutral may not be all that difficult. It should take leadership and consider becoming one.