New Energy Outlook report-2022

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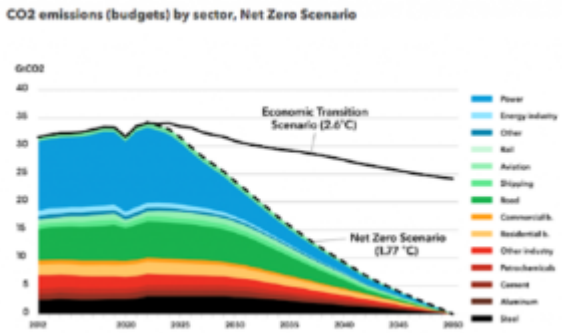
In news– The BloombergNEF has published the New Energy Outlook report-2022 recently.

Key highlights of the report-

- The report is BloombergNEF's long-term scenario analysis on the future of the energy economy covering electricity, industry, buildings, buildings and transport and the key drivers shaping these sectors until 2050.
- The Bloomberg NEF's Economic Transition Scenario is its baseline assessment of how the energy transition might evolve from today as a result of cost-based technology changes.
- The Bloomberg NEF's Net Zero Scenario describes an economics-led evolution of the energy economy to achieve net-zero emissions in 2050.
- As per the report**, it is still possible to keep the temperature increase to 1.77 degrees Celsius** with determined action. But **investments in the clean energy sector must triple that of fossil fuel to reach Net Zero by 2050.**
- It says that **greenhouse gas emissions from developing economies, particularly India,** will continue to rise until the end of the present decade and will only begin to decline by the early 2030s.
- The report by global, clean energy research provider BloombergNEF analysed Net Zero scenarios or pathways that limit global warming to 1.77 degrees Celsius above pre-industrial levels by 2050, with a 67 per cent assurance.
- **Emissions in Europe, the United States, Australia and Japan have already peaked in 2022** and will decline

rapidly after tha.

- However, **China's drop takes a blended approach**; emissions peak in 2022 and stabilise for a while before they realign with developed countries' trajectories.
- Its modelling suggests emissions need to fall by 30 per cent by 2030 and overall by 6 per cent a year to 2040.



- **On the contrary, if no new policies were carried out to transition to a low-carbon economy, t**he emissions would fall on average at a rate of 0.9 per cent every year, as per the economic transition scenario. This aligned with **2.6 degrees Celsius temperature warming by 2100.**
- **Switching the sources of power generation from fossil fuels to renewable energy i**s the need of the hour and this would account for nearly half of the reductions in carbon emission
- **About 25 per cent of total emissions can be reduced using low-carbon electricity in the transport sector and industrial processes**.
- The rest of the emissions can be abated by hydrogen and carbon capture and storage (CCS) by 6 per cent and 11 per cent, respectively.
- **CCS is the process of using technology to capture carbon emissions from industrial processes** or power generation, from where it is transported and stored underground for posterity.
- **Using CCS results in 11 per cent of all emissions being reduced from 2022-50.**
- The annual rate of emissions captured by CCS grows from very low levels today to 1.7 gigatons of carbon dioxide

in 2030, 4.9 gigatons in 2040 and 7.3 gigatons by 2050 – a volume comparable to the combined power sector emissions of China, the US, and Europe in 2021.

- **The usage of hydrogen grows five-fold in the Net Zero projection for 2050 from 90 million tonnes now to 501 million tonnes in 2050.**
- It is driven by the energy industry (163 million tonnes), steel making (144 million tonnes) and transport (88 million tonnes) sectors for either aviation or shipping.
- **The Net Zero scenario requires a global investment of $194 trillion by 2050 to make this large-scale clean energy transition.**