

NTPC Limited and GE Power India Limited sign MoU to reduce carbon intensity from NTPC's coal fired units

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Carbon reduction from coal power plants is a key challenge and Co-firing of low-carbon fuel will facilitate the transition towards a low-carbon energy economy and subsequently to “Net Zero” emission. In its efforts to adopt advanced powering technology to decarbonize power generation in India, NTPC Ltd., the country’s largest power generating utility, and GE Power India Limited, a listed company of GE Steam Power in India signed today a Memorandum of Understanding (MoU) for feasibility to demonstrate technologies to reduce the carbon footprint of NTPC’s existing coal-fired power plants.

- NTPC and GE Power India Limited and will partner to reduce carbon intensity at NTPC’s coal-fired units.
- This is a first-of-a-kind step for coal fleet decarbonization in the country.
- This partnership aims to demonstrate technologies for firing a higher percentage of Torrefied Biomass in NTPC’s coal-fired unit, Methanol Firing & Ammonia Firing.

This first-of-a-kind MOU aims at partnering on research, development and engineering of technologies that will enable NTPC to reduce the amount of coal-fired in their units and gradually replace it by co-firing of ‘alternate fuel’ in boiler - both (i) carboneous (methanol, Carbon neutral fuel- agri-waste, biomass, etc) and (ii) non-carboneous (such as ammonia). This will make use of huge existing infrastructure and less new investment will not be required as compared to other decarbonisation options. Further, as in India coal is the only option for base load so it will help to reduce carbon footprint from source of reliable power, for decades in future.

As a primary goal, the collaboration is to support NTPC in co-firing of biomass pellets beyond 20% and up to 100%, as well as enabling the co-firing of methanol. It will also explore the possibility of introducing ammonia as a co-firing fuel, and also develop, test and demonstrate technologies that allow a total co-firing with lower carbon fuels in coal fired power plants.

Ujjwal Kanti Bhattacharya, Director Projects, NTPC Limited said, “We are looking forward to working with GE Power India Limited as NTPC intends to minimize the carbon footprint of our 57+ GW coal-based units. We aim to decrease carbon footprint from our coal-fired power plants by co-firing of alternative fuel such as carbon neutral fuel, Green Methanol and Green Ammonia. It will support our goal of reducing carbon emissions from our coal-based power generation, as part of NTPC’s The

Brighter Plan 2032 that aims at setting new benchmarks in sustainability along the entire energy value chain in India.”

Prashant Jain, MD GE Power India Limited and RGM GE Steam Power said, “This MOU is in line with our country’s efforts to adopt advanced powering technology to decarbonize power generation. We are excited to partner with NTPC Limited on finding solutions to address carbon emissions, while ensuring efficient, reliable and affordable power generation. This is a huge stride in India’s energy transition journey as the country looks ahead to achieve its net-zero targets.”