



Carbon capture begins at NTPC's power plant in India

Carbon capture is underway at NTPC's 500MW coal-fired power plant (Unit-13) at Vindhyachal Super Thermal Power Station, in Madhya Pradesh, India.

NTPC Energy Technology Research Alliance (NETRA) has selected Carbon Clean and Green Power International Pvt. Ltd to set up the Carbon Capture Plant at NTPC Vindhyachal. This plant is designed to capture 20 tonnes of carbon dioxide (CO₂) per day, which will use modified tertiary amine to capture CO₂, from flue gas of fossil fired power plant, with a purity of more than 99%. CO₂ will eventually be integrated with hydrogen to produce 10 tonnes per day of methanol through a catalytic hydrogenation process.

The capture of CO₂ from the flue gas of coal-fired power plants, and its conversion to methanol, is a priority area for NTPC and is expected to create potential new business opportunities and revenue streams for the company.

Aniruddha Sharma, Chair and CEO of Carbon Clean, said:

"We are thrilled to see our technology begin to capture carbon from NTPC's plant and look forward to seeing how the CO₂ to methanol project develops in the future. This project demonstrates how carbon capture supports industrial decarbonisation, as well as providing opportunities for companies to join the growing circular carbon economy."

Surbhi Puri, Director, Green Power International added:

"It is a great honour and achievement to successfully demonstrate the carbon capture project at NTPC's Vindhyachal plant. It is a matter of great pride for us to work with Carbon Clean on this project that will help deliver a greener and cleaner future. Decarbonisation through carbon capture is the future. With this small contribution towards the net zero economy, we hope to inspire the industry to make further strides in this decarbonisation drive."

Carbon Clean's CDRMax™ carbon capture technology can be used with point source gases that contain CO₂ concentrations between 3% and 25% by volume and produces CO₂ with purities greater than 99%, which can then be sold, re-used, or sequestered. The CDRMax™ process uses the company's proprietary solvent, process equipment design, and advanced heat integration to significantly reduce both capital and operating costs.

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About Carbon Clean

Carbon Clean is a global leader in carbon capture solutions for hard-to-abate industries such as cement, steel, refineries and energy from waste. The company's patented technology significantly reduces the costs of carbon capture when compared to conventional solutions.

The company is leading innovation in the CCUS market and has developed a fully modular technology – CycloneCC – that is set to disrupt the sector. The company's solutions will help deliver the necessary scaling up of carbon capture to achieve global net zero targets. The technology has been proven at scale in over 44 sites around the world and it has delivered the world's largest industrial-scale carbon capture and utilisation plant for Tuticorin Alkali Chemicals & Fertilizers Ltd, India.

The UK-based company has received funding and grant support from the British and U.S. governments and has established partnerships with industry leaders including CEMEX and Veolia. It is also an investor in the Swedish eMethanol shipping fuel company, Liquid Wind.

Carbon Clean is a BNEF Pioneer 2022 company, has been a Global Cleantech 100 company three times (most recently in 2022), features in the inaugural PwC Net Zero Future50 and was chosen as one of CEMEX Ventures Top50 ConTech Startups.

For further information: www.carbonclean.com

About Green Power International

Green Power International Pvt. Ltd. is a leading global EPC company having its headquarters in India. The company is promoted by a team of professionals and technocrats having vast experience of more than 20 years in the field of power generation and EPC turnkey solutions for liquid and gas fuel-based power plants. With a team of 600+ professionals, the company specializes in providing single window solution for design, engineering, supply, erection, installation, commissioning, and comprehensive O&M of gas & liquid fuel-based power plants.

Since its inception, Green Power international has been in partnership with Caterpillar Energy Solutions GmbH for promoting their MWM brand gas genset globally as an authorised distributor and solutions provider across 10 countries. The company has a global footprint spanning India, Africa, Middle East and Southeast Asia regions, where they have installed more than 750 MWe gas genset based power plants with 450+ sites.

Under its decarbonization and clean energy vertical, Green Power International is providing turnkey solutions and services for carbon capture & utilisation as well as Hydrogen generation



projects. The company is executing first of its kind H₂ generation project with NTPC in India using SOEC (Solid Oxide Electrolytic Cell) technology at NETRA, Greater Noida.

For further information: www.greenpowerintl.com