Hitachi Zosen INOVA

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Additional CO_2 Separation Process – Hitachi Zosen Inova Signs MoU with CO2 Capsol

Hitachi Zosen Inova and CO2 Capsol AS have signed a memorandum of understanding to implement a hot potassium carbonate CO_2 separation process for energy-from-waste plants. This adds a third solution to HZI's portfolio of CO_2 separation technologies.

Zurich, Switzerland. The Swiss-Japanese greentech company Hitachi Zosen Inova (HZI) and the Norwegian technology provider CO2 Capsol AS (CO2 Capsol) have signed a memorandum of understanding (MoU) to implement Capsol EoP (End of Pipe) technology in energy-from-waste (EfW) plants. This increases HZI's portfolio of CO2 separation technologies, each have their own specific advantages.

Safe Solvent, Cost-Effective Process
The Capsol EoP technology uses hot potassium carbonate (HPC), which does not pose a risk to people or the environment while being cost effective. The EoP process connects to the end of the EfW process and is powered either by electricity generated by the plant or by a combination of electricity and steam from the EfW facility. The standalone system can be installed and commissioned without interrupting the plant's operation. The CO_2 can then be either liquefied, stored, or used to produce methane in downstream processes. Thanks to a patented heat recovery method, this technology is quite efficient with respect to operating costs. The energy requirement for separation is approximately 200 kWh per tonne, depending on the specific installation.

Jan Kielland, CEO of CO2 Capsol, says: "Capsol EoP is ideally suited to capturing CO_2 from post-combustion. In HZI, we have found a partner with whom we can establish this solution in EfW facilities."

Fabio Dinale, Vice President Business Development at HZI, adds: "This technology allows us to offer our customers a third process for separating CO_2. It is robust, efficient and particularly suited to EfW plants that feature district heat extraction, since the process makes it possible to extract more total heat."

Additional feature to HZI's Decarbonisation Concept
This agreement is another key milestone in the HZI's ambitious decarbonisation plan, and it comes in addition to its existing amine scrubbing separation (Aker-type) and mineralisation technologies for carbon capture (Carbonfree), storage and utilisation (CCS/U). Each process has specific advantages and disadvantages depending on a plant's location, connections, and operating methods. HZI aims to be in a position to offer the best possible solution for every specific requirement in order to support decarbonisation and implement circular economy landscapes globally.

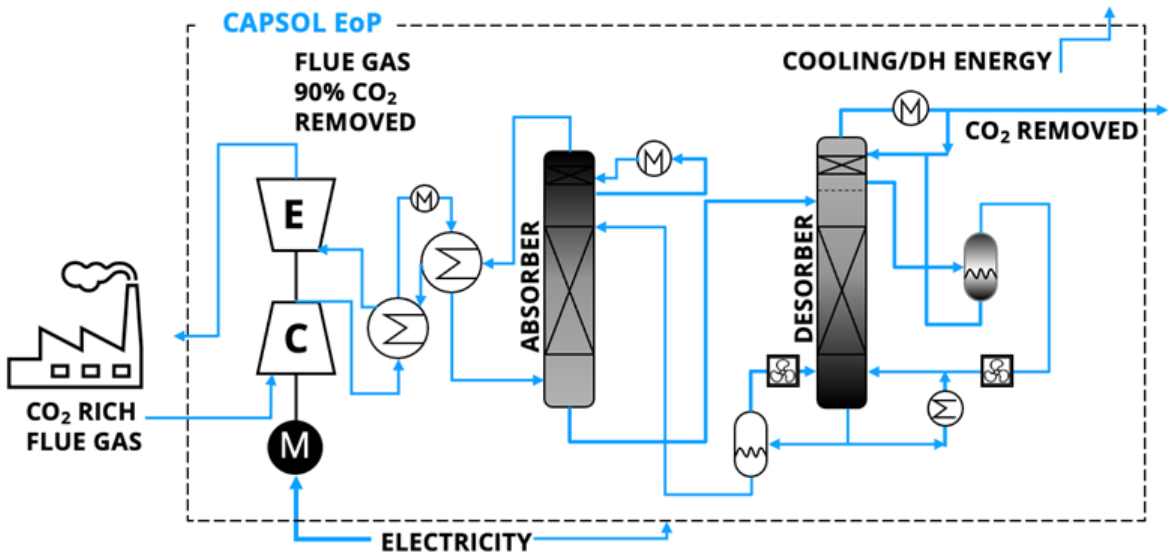

Photo: A simplified overview of CO2 Capsol´s End of Pipe (EoP) carbon capture technology utilizing a patented heat recovery process in conjunction with the safe Hot Potassium Carbonate ("HPC") solvent. © CO2 Capsol

About Hitachi Zosen Inova
Zurich-based Hitachi Zosen Inova (HZI) is a global leader in energy from waste (EfW) and renewable gas (RG), operating as part of the Hitachi Zosen Corporation Group. HZI acts as an engineering, procurement and construction (EPC) contractor and project developer, delivering complete turnkey plants and system solutions for thermal and biological waste recovery. Its solutions are based on efficient and environmentally sound technologies, are thoroughly tested, and can be flexibly adapted to customer requirements. HZI's Service Group combines its own research and development with comprehensive manufacturing and erection capabilities to provide support throughout the entire plant life cycle. HZI works for customers ranging from experienced waste management companies to up-and-coming partners in new markets worldwide. Its innovative and reliable waste, flue gas treatment, gas up-grading and power-to-gas solutions have been part of more than 700 EfW and biogas reference projects delivered since 1933.

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About CO2 Capsol AS
Based in Oslo, Norway, CO2 Capsol is a technology provider offering cost-competitive, energy-efficient post-combustion carbon capture technology based on hot potassium carbonate (HPC) as a solvent. It was founded in 2014 after the founders had gained a series of patents over the course of a decade. The company's team of highly qualified technical experts is supported by a staff of innovative specialists from a range of different backgrounds. Its vision is for its technology to enable a substantial acceleration of the world's transition to a carbon-negative future.

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