New integrated power system

In the United States, Thermoenergy Corp. has developed a clean energy process called Thermoenergy Integrated Power System (TIPS). The new process utilizes a diverse mix of energy resources for power including coal, gas, oil, biomass and "opportunity resource fuels." It changes the combustion process and tweaks the Rankine cycle to enable the capture of carbon dioxide (CO_2) as a liquid for sequestration or beneficial reuse. TIPS uses the phenomenon of nucleate condensation in parallel with the liquid vapour equilibrium of both water and CO_2 to achieve complete particulate capture. The nucleate condensation physics works extremely well with very tiny particles and is rapid and efficient.

TIPS eliminates the release of acid gases, atmospheric particulates and mercury. It can be deployed in various applications including: to build new power plants, to retrofit existing power plants or together with coal-gasification power plants to increase process efficiency, recover produced CO_2 and achieve 'hot gas' clean-up. It could even be used as an efficient hydrogen generation technology in fuel cells and other similar clean energy technologies. Once implemented, TIPS can play a key role in reducing greenhouse gas emissions. *Contact: Mr. Alex Fassbender, Thermoenergy Corp., the United States. Tel: +1 (509) 3750 847; E-mail: afassbender@thermoenergy.com; Website: http://www.thermoenergy.com.*

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