

Company Information Memo

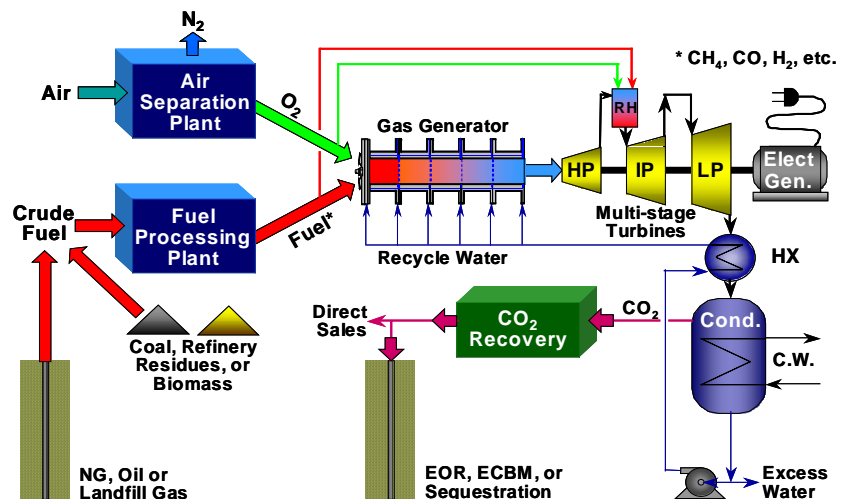
Zero Emission Natural Gas (ZENG) Power Modules for the Industrial-Size Market

CO₂-Global Power Ventures AS



Background: CO₂-Global AS (www.co2-global.com) is establishing CO₂-Global Power Ventures AS as the designated special purpose company in which CO₂-Global AS will implement the 70 MW Zero Emission Natural Gas (ZENG) power plant modules. Our current focus on the smaller industrial-size market should enable early commercialisation in the 2007-9 timeframe of the ZENG technology and our projects. At the same time we will also be developing technology, process design and engineering expertise for the larger (+200 MW) zero-emission power generation market with possible investment decisions in the 2010-12 timeframe.

The ZENG Power Module™ is based upon use of the oxy-fuel Gas Generator that has been developed by Clean Energy Systems (CES). See www.cleanenergysystems.com. This permits combustion of gaseous hydrocarbon fuels with oxygen, resulting in production of a high-temperature and high-pressure steam (with ~10% CO₂) gas mixture. The steam (and CO₂) is expanded in a reconfigured steam turbine, following which the CO₂ is separated in the steam condensation process. The cycle has net positive production of water, enables 100% capture of CO₂ and has zero emission of NO_x.



The 70 MW ZENG Power Module™ is based upon reconfiguring near-term commercially available components and early commercialisation in niche industrial markets. This will also advance subsequent implementation of larger and higher efficiency 200+ MW ZENG Power Block™.

Technology Status: A 20 MW_{th} prototype CES Gas Generator has been in operation since December 2004 at the Kimberlina Test Plant, near Bakersfield, Ca. The Gas Generator has completed more than 1,500 hours firing with approximately 300 start and shutdown sequences. A standardised 150 MW_{th} Gas Generator is currently being designed and manufactured for early projects in the Netherlands, Norway and the United States.

CO₂-Global has since 2002 participated in development of the higher efficiency ZENG-CES process cycle. This work has been undertaken through our fully controlled subsidiary CO₂-Norway AS (see www.co2.no) and recent establishment of ZENG AS, a Norwegian technology development company that is now responsible for completing design and implementation of a nominal 48% efficient demonstration power plant at the Energy Park, Risavika, South Norway in collaboration with Lyse Energi AS, the regional electricity and gas distribution company.

Commercial Status: CO2-Global Power Ventures AS (CO2-GPV) has retained rights to market the zero-emission power cycle design outside of Scandinavia. In its role as an international lead developer, the company is seeking regional partners and identifying project sites for installation of the industrial-size ZENG Power Module™. We have to date identified 14 provisional locations where we are advancing discussions beyond the Letter of Intent (LoI) stage and securing rights to a proposed 30-50% ownership stake in each project that is developed.

Revenue & Capital: The income stream in CO2-GPV is based upon, (i) success fees paid at financial close of the development phase of each project, and (ii) equity returns from sale of power, CO₂, nitrogen and water throughout the lifecycle of each project (20+ years).

Many of these projects will also be eligible for CO₂-credits, JI and CDM certificates that are part of the evolving Kyoto mechanisms to encourage CO₂-capture and storage.

The ZENG Power Module™: Depending on the detailed design and integration with other industrial processes, each module will cost from \$90 to \$120 million and produce a nominal 50-70 MW_e of zero-emission power at between 38% to 48% efficiency. In a combined heat and power mode (CHP) the electrical output will be lower but the overall thermodynamic efficiency can be higher.

Each standalone module currently includes a 1,000 ton per day Air Separation Unit (ASU). However there are obvious advantages if the module can be co-located with an adjacent separate source for oxygen. On an annual basis each module produces ~275,000 ton CO₂ and ~225,000 ton of water.

Lead Project Status: The ZENG Risavika Project has recently secured the next phase of project development funding through sponsorship from ZENG AS, Shell, Statoil and Gassnova, the Norwegian government funding agency. The project is scheduled to undertake the Front-End Engineering & Design (FEED) phase requiring ~\$5 million with a “go-forward” decision during 2Q-2007. Siemens has made commitments to support the necessary turbine development for the project and CES has committed to supply the Gas Generator technology.

There are three prospective projects in the Netherlands that CO2-GPV is developing with regional partners, with the intention of using CO₂ for enhanced gas recovery (EGR).

CO2-Global is also developing a prospective project with Falcon Gas Storage of Houston, Texas, for production of zero-emission power and CO₂ for enhanced oil recovery (EOR) at the Worsham-Steed site in North Texas.



The Global Zero-Emission Power Market: Additional prospective project opportunities have been identified in Europe, United States, Middle East and China, confirming the existence of an early industrial-based commercial market opportunity for zero-emission combined heat and power.

CO2-Global Power Ventures is actively seeking regional investment and development partners to participate in early deployment of the ZENG Power Module™. For further information please contact:

Managing Partner, George D. Lyons III (gdl@co2-global.com)

Commercial Director, J. Michael Austell (jma@co2-global.com)