

ENEL, ENEA AND ITEA LAUNCH TESTING PROJECT TO REDUCE EMISSIONS AT COAL-FIRED POWER PLANTS TO NEAR ZERO

Enel, Enea (Agency for New Technology, Energy and the Environment) and Itea, a specialised Sofinter Group company, signed an agreement in Rome today to develop a new high-efficiency combustion system that produces practically no emissions.

Rome, 17 October 2006 - Enel, Itea (a Sofinter Group company) and Enea signed an collaboration agreement in Rome today to develop an advanced combustion technology for coal-fired power plants that will reduce all emissions to near zero.

The new process, which is patented by Itea and has already undergone 4,000 hours of testing at a 5 MW pilot plant at Gioia del Colle (Bari), can handle solid fuels, reducing the creation of pollutants to a minimum while providing high energy efficiency. This process, which leverages the knowledge developed under a Itea-Enea research project co-financed by the Ministry for Universities on energy recovery from residual materials, produces a combustion gas can composed essentially of CO₂, which facilitates the removal and subsequent sequestration of this greenhouse gas.

The agreement provides for an initial stage devoted to experimentation and modelling to determine the scope for scaling up the process. A commercial plant of between 35 and 70 MW_e to be located at an Enel coal-fired power plant will be designed. This phase will last one year.

If the emissions abatement data and the findings of the technical and financial studies are as expected, the second phase will involve the construction of the commercial plant, which will be the first Italian power plant with "near-zero" emissions. It will take about three years to build and start operations at the plant.

The project will bring together the three partners' skills and experience in combustion systems and emissions abatement, as well as the specific research carried out so far in this field. In particular, Itea will contribute its pilot plant and know-how, Enel its considerable combustion research experience and Enea its skills as a technology advisor, as well as maintaining links with the Ministry for Economic Development's Electric System Programme in clean coal sector. Enel will also shoulder two thirds of the development costs in the first phase of the project, with the remaining third being met by Itea.

The results of the project will enable the Italian industrial system to play a leading international role in this area, especially in view of the new EU programmes for the development of zero-emissions fossil fuel power plants.