Retrofitting a Dutch Power Plant

Reduce Emissions with Biomass Co-Firing

Location
Geertruidenberg, The Netherlands

Client
RWE Generation NL

Expertise
Co-combustion, Biomass Co-firing, Combined-Heat-And-Power (CHP), CO₂ reduction, Fuel flexibility, biomass conversion, Changing Main Fuel of Coal Fired PP

Our Services
• Owner’s Engineering
• Project Service Support
• Complete Project Management during execution from Design to Construction Supervision, Commissioning and Take Over
• Co-Combustion Technical Assumptions
• Construction Supervision
• Co-Combustion Installation and Testing
• Biomass Conversion
Project description

RWE continuously improves the CO₂ footprint of its power plants across Europe, while simultaneously keeping efficiency up. One way to achieve such an improvement is through retrofitting coal power plants to co-fire biomass wood pellets.

Assigned by RWE Generation NL, we are responsible for Biomass Conversion of the 631MW Amer 9 Power Station in Geertruidenberg, The Netherlands. It will be able to achieve a biomass ratio of 80% when the project is finished. This effort will reduce CO₂ emissions by 2,400,000 ton. Our role in the project encompasses supporting the project development and complete project management, associated interfaces from start of the execution including construction supervision and commissioning to take over.

The main challenges of co-firing are related to the properties of different fuel types combusted and to optimise this in relation to the existing power plant design, particularly the calorific value, moisture content, ash production and combustion characteristics. As such, various technologies perform differently depending on the biomass type and the quantities co-fired.

Our combustion experts are highly experienced in the different combustion and fuel switching technologies, additional equipment, storage and transport needs as well as the associated investment and operating costs.