



Project Summary

Demonstration of direct Solid Recovered Fuel (SRF) co-combustion in pulverised fuel plants and implementation of a sustainable waste-to-energy technology in large-scale energy production

RECOFUEL

Action Line: Cost-effective supply of renewable energies

Contract Type: Specific targeted research projects

Activity area: Biomass

Coordinator:

Organisation: REMONDIS AG
Luepertzendener str 6
41061 Moenchengladbach
Germany

Contact Persons: Thomas CONZENDORF

Project details

Reference:	Bioma/503184/2003	Start Date:	2/06/2004
Status:	Execution	End Date:	1/06/2007
Project Cost (€):	5.928.840	Duration:	36 months
Project Funding (€):	2.704.838		

Summary

The use of Solid Recovered Fuels (SRF) derived from mixed-/mono waste streams is expected to result in a significant contribution to the generation of sustainable energy. The demand for alternative waste treatment is addressed by production and direct co-combustion of SRF in pulverised fuel fired power plants as an environmentally friendly, energy efficient, short-term available and cost effective technical solution. The project assists the implementation of EU policies (energy, environmental, economic and social goals) by sustainable energy production, CO₂ emission reduction, preservation of natural resources and abatement of hazardous impacts on the environment due to landfill.

The proposed project comprises large-scale demonstration of SRF co-combustion at a 450MWth brown coal/lignite boiler of RWE Rheinbraun AG in a continuous period of at least 12 months with the scope of permanent and reliable operation. A thermal share of 10% is envisaged (25.000 - 50.000 Mg/a SRF) resulting in a direct environmental benefit up to 50.000 Mg/a CO₂ by the efficient use of the renewable share of SRF. With successful demonstration the implementation of the SRF co-combustion technology at further comparable and larger units of RWE is envisaged. Operational problems arising during former short-term co-combustion tests with hard coal could be successfully solved by an improved fuel production and a reliable quality control system.

The interaction between a reliable quality control, quality management system and the combustion technology makes this technology competitive in the liberalised energy market without any additional subsidy.

To achieve the ambitious goals partners of industry and research centres with substantial expertise in the areas covering the whole waste-to-energy chain created a consortium. To enhance the dissemination and exploitation of the technology, large power generation companies from Greece, Germany and the Netherlands



Partners

1	REMONDIS AG	DE
2	Universitaet Stuttgart	DE
3	KEMA Nederland B.V.	NL
4	RWE Power AG	DE
5	National Technical University of Athens	GR
6	Institut für Abfall-, Abwasser- und Infrastruktur-Management GmbH	DE
7	Public Power Corporation S.A.	GR
8	Aabo Akademi University	FI
9	Essent Energie BV	NL
10	Centro Elettrotecnico Sperimentale Italiano Giacinto Motta SpA	IT
11	TAUW BV	NL
12	Institute for nuclear sciences VINCA	YU