

Project Summary

Demonstration of a sustainable CHP concept using residues from olive oil production

OlivePower

Action Line: Cost-effective supply of renewable energies

Contract Type: Integrated projects

Activity area: Bioenergy

Coordinator:

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Project details

Reference:	BIOENE/019839/2005	Start Date:	15/01/2007
Status:	Execution	End Date:	14/01/2011
Project Cost (€):	15.605.000	Duration (months):	48
Project Funding (€):	6.055.500		

Summary

The project focuses on the demonstration of an innovative and sustainable CHP concept using residues from olive oil production (olive wastes) as fuel. A first plant based on the new concept will be realised in Greece. The main objective of the project is to demonstrate a closed cycle concept able to reduce landfill problems and emissions and to promote the use of renewable electricity production in Southern Europe.

The project will be based on an approach integrating the whole chain (fuel logistics and preparation, energy production, by-product utilisation). An optimised fuel logistic concept will guarantee for a secured fuel supply over the whole year. The fuel will not only be dewatered and dried but also a marketable by-product will be produced. By this means a better fuel quality can be achieved and solid wastes as well as waste water can be omitted. The development and design of the combustion unit focuses on a technology tailored to the special characteristics of the olive waste. An appropriate furnace and boiler design as well as an optimised flue gas cleaning system will guarantee for low emissions at high efficiencies and availabilities. Furthermore, the use of the ashes as secondary raw material with fertilising effects will be investigated and an appropriate ash utilisation concept will be developed. Within a comprehensive monitoring phase the new concept will be tested, optimised and evaluated.

Based on this new and innovative closed chain concept, a sustainable energy production from olive wastes will be demonstrated. The first CHP plant will act as a starting point for a number of follow-up projects in Southern Europe. To support the market introduction and to point out the high replication potential of the new concept, one part of the project will also focus on the ecological and techno-economic assessment of the technology as well as on market analyses concerning suitable locations for the new system in Southern Europe.

Partners

1	New Energy Biomasse Hellas GmbH	DE
2	Standardkessel GmbH	DE
3	MTM Energy Consult Manderbach GmbH	DE
4	BIOS BIOENERGIESYSTEME GmbH	AT
5	Panmessiniakos Syndesmos Elaiotriveon Messinias	GR
6	VETTER Maschinenfabrik GmbH & Co. KG	DE
7	CENTRE FOR RENEWABLE ENERGY SOURCES	GR
8	Instituto Nacional de Engenharia, Tecnologia e Inovação	PT
9	ETA, Energia Trasporti Agricoltura, srl	IT
10	ESCAN, S.A.	ES