

Low-Carbon After-Life: sustainable use of flooded coal mine voids as a thermal energy source - a baseline activity for minimising post-closure environmental risks



instalación de aprovechamiento geotérmico de HUNOSA (Barredo, Mieres), cortesía de HUNOSA

PROJECT DETAILS

Funding Programme:
Research Fund for Coal & Steel

Sub-Programme:
Coal Research

Funding Scheme:
Research Project

Project Reference:
00001;
UE-14-RFCR-CT-2014-00001

Project Duration:
36 Months (from 2014-07-01 to 2017-06-30)

Total Project Value:
€ 1.621.998

EU Grant-Aid:
€ 973.195

Funding to UniOvi:
€ 363.286

PROJECT DESCRIPTION

In the LoCAL project we aim to bring together the state-of-the-art in modelling and management of abandoned coal mine workings to use the mine water as a heat source. Our approach provides an active, low-carbon after-life for old mine voids after closure, and also delivers ongoing monitoring of water levels and quality, which in turn will increase the understanding of the systems, thus making it easier to manage all other environmental issues that might arise (e.g. outflow of polluted water, gas emissions, subsidence etc). Use of mine water as an energy source can also help subsidise the cost of other environmental monitoring. Planned active pilot projects on mine water as a heat source are themselves aimed at obtaining a low-carbon energy source from the remains of the high-carbon past, but also in terms of the CO₂ capture agenda they will also yield information on hydraulic behavior of very deep mine voids which in places are deep enough (> 750m) to be considered potential CO₂ storage zones in their own right.

The overall aim is to increase the yield of the production and the quality of the products taking into account the environment impact.

PROJECT PARTNERS

Project Coordinator
Główny Instytut Górnictwa (Central Mining Institute) – CMIPL, Poland

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