

PRESS RELEASE

“Enhanced Coal Exploitation through Underground Coal Gasification in European Lignite Mines” Kick-off Meeting

28 August 2014, Bucharest

ISPE, as project coordinator, together with all involved partners, launched the European research project COAL2GAS on the occasion of the kick-off meeting held in Romania on Thursday, August 28. The project titled “Enhanced Coal Exploitation through Underground Coal Gasification in European Lignite Mines” (acronym COAL2GAS) is co-financed by the European Research Fund for Coal and Steel (RFCS).

The event was organized by ISPE at its headquarters in Bucharest and chairperson of the event was COAL2GAS Coordinator - dr. Carmencita CONSTANTIN.

The event started with the presentation of both the experts attending the event and their organisations, members of the project consortium, in order to underline the interdisciplinary approach of the project and high level of expertise. The consortium gathers RDI institutes, consulting - engineering - turnkey projects’ developers and lignite mines.

COAL2GAS consortium covers Europe from West to South and East through its partners coming from Germany, Belgium, The Netherlands, Greece, Poland, Slovenia and Romania, ensuring a geographical well balanced knowledge sharing and replicating potential.

COAL2GAS project represents a challenge for the coal power industry in Romania and a real opportunity for the Oltenia Energy Complex to develop new alternatives considering the current background at European level in terms of security of energy supply and natural resources import dependence.

The agenda of the day included the partners presentation and their involvement in COAL2GAS project, work packages leaders describing step-by-step the activities’ development and tasks’ responsibilities, deadlines to observe, including deliverables and milestones.

Interventions were made during the Q&A session related to the importance of the risk assessment, which will be attentively monitored considering our partners solid expertise in the field.

Details were established for the next day field trip to Oltenia Lignite Basin – Rosia Mine belonging to Oltenia Energy Complex.

Future project meeting was decided to be organised in Poland and additional details were set-up in terms of promoting and disseminating COAL2GAS project’s results.

COAL2GAS Project Brief

Underground Coal Gasification (UCG) has a great potential to provide cleaner energy than direct combustion of coal in power plants. It is capable of replacing traditional mining methods and particularly access and exploit resources that cannot be mined economically with other technologies.

OBJECTIVES

UCG pilot projects have recently been commissioned in several countries focussing – besides developing the technology – on safe and environmentally friendly operations and particularly on the problem of groundwater contamination. Tests of gasifying lignite underground are quite rare even though many underground lignite mines have been abandoned with vast resources remaining. While the general feasibility of gasifying these resources has been proven, it has to be confirmed whether the technology could be implemented under EU standards. In countries with major

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abandoned lignite reserves like Romania, utilization of the resources may have a positive macroeconomic impact without compromising environmental protection.

The **overall objective** of the COAL2GAS proposal is to evaluate the feasibility of UCG in shallow lignite seams, in terms of geology, technology and environmental impact and to illustrate this for a selected mining site in Romania.

The resulting information will be linked to the requirements of the national regulatory framework in the field of mineral resources in a permit application. A future environmental oriented UCG pilot will be prepared. Analyses will be performed for other similar European deposits in Slovenia.

CONSORTIUM STRUCTURE

Institutul de Studii si Proiectari Energetice, Romania (ISPE) - coordinator; Główny Instytut Górnictwa, Poland (GIG); DMT GmbH & Co. KG, Germany (DMT); Centre for Research & Technology Hellas, Greece (CERTH); Most Coal Engineering, Belgium (MCE); Nederlandse Organisatie voor Toegepast Natuurwetenschappelijk Onderzoek, The Netherlands (TNO); Complexul Energetic Oltenia, Romania (CEO); Premogovnik Velenje, d.d., Slovenia (PV)

WORK PACKAGES

WP1 - Coordination and Reporting

WP2 - Data Analysis and Site Selection

WP3 - Testing and Drilling

WP4 - Panel and Well Design & Engineering for Integrity and Safety / Surface Plant Assessment

WP5 - Risk Analysis, Environmental Issues and Legislative Background

WP6 - Preparation of Demonstration Project

EXPECTED OUTPUTS

- Identification of mine shafts and assessment of existing isolation works, damming etc.;
- Correlation of operating maps with the maps of mine closure activities;
- Definition of site selection and design criteria to allow transfer to other potential targeted deposits;
- Geological and hydrogeological assessment of suitability;
- Site selection and design of drill and panel pattern to be adopted;
- Assessment of negative or positive impact of former mine workings and geological structure;
- Design and field tests of drainage and monitoring systems;
- Draft design of utilization scheme and adaptation of UCG project design;
- Set up of a monitoring database;
- Design of a monitoring system for operations and environmental protection;
- Final risk analysis;
- Establishment of appropriate techniques for extinguishment, well closure and long term safekeeping.

PROJECT DETAILS

Total budget: € 2,208,196

EU contribution: € 1,324,915

Duration: July 2014 to June 2017



Complexul Energetic Oltenia