



### Methane to Markets Subcommittee Report Poland

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### **Challenges for Poland**

- Utilizition of the entire coal mine methane (CMM) obtained from the drainage process,
- The ventilation air methane (VAM) recovery providing conditions for utilization,

# Utilizition of the entire coal mine methane (CMM) obtained from the drainage process

### Coal mines (2009)

31 coal mines in operation, among them:

- 27 methane coal mines,
- 21 have drainage installations of methane,
- 14 utilize methane.

### Coal mines (2008)

Methane from the coal mines is used in small scale units for:

- CHP,
- electricity generation,
- heat generation.

## Annual methane's estimations for capturing from the coal mines (2009)

Total amount of 924 373 mln m<sup>3</sup> methane will be released, which would include:

- 659 793 mln m<sup>3</sup> methane through ventilation systems,
- 264 580 mln m<sup>3</sup> methane through degasification systems, which covers:
  - 77 180 mln m<sup>3</sup> methane released to atmosphere,
  - 187 400 mln m<sup>3</sup> methane utilized.

### U.S. E.P.A. award to CMM research

Abandoned mine feasibility study and coal mine methane to liquefied natural gas assessment ("Zory" Coal Mine) realized by Institute for Ecology of Industrial Areas.

The main goal of the research is to stress the necessity of obtaining CMM from abandoned mines and economic assessment of potential possibilities of using it in Polish conditions.

# The ventilation air methane (VAM) recovery – securing conditions for utilization

### Securing conditions for VAM utilization

- Introducing the technology allowing to separate methane from the ventilation air from Polish coal mines,
- Creating the economic conditions for utilizing the amount of VAM from Polish coal mines.

### U.S. E.P.A. award to VAM research

Detailed Characteristics of the Ventilation Air Methane
Emissions from 10 Gassy Hard Coal Mines in Poland
performed by Central Mining Institute of Katowice
(5 was already evaluated)

The main task of the project is to quantify ventilation air methane emissions, including individual shafts' flows/fluctuations and possible end uses.

### Support scheme for using methane

#### For methane from the coal mines:

- New legislation being introduced under the program of executives activities for the energy policy for Poland till 2030...
- Activity 2.1 "Support for the economic utilisation of methane released during mining operations in the hard coal mines"
- Ativity 2.2 ."Introduction of technological solutions enabling utilisation of VAM released from the hard coalmines to the atmosphere"

### Thank you for your attention

Central Mining Institute of Katowice and Polish Ministry of Economy