



**Instytut Nafty i Gazu**  
**Oil and Gas Institute**



**METHANE TO MARKETS SIDE EVENT**  
**UNFCCC 14th CONFERENCE OF THE PARTIES**

**12th December 2008**

**Poznań**

**Oil and Gas Institute Experience**  
**in Methane to Markets Partnership**

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## Oil and Gas Institute - Description

The Institute's research scope comprises all stages of natural gas fuel chain, prospecting for and mining oil, environmental protection and **renewable energy** in particular:

- assessment of exploration prospects in various regions of the country;
- assessment of geological, mineable and industrial deposits of oil and natural gas;
- drilling technology;
- management and mining of natural gas and oil deposits;
- evaluation of plastic materials used in gas industry;
- technical evaluation of gas pipe fittings and gas metering systems;
- evaluation and quality control of hydrocarbon fuels;
- new technologies of gas use;
- environmental protection issues in the oil and gas industry;
- **landfill gas capture and utilization (Dept. of Renewable Energy Sources)**

## Department of Renewable Energy Sources - Description

- Designs degassing installations for utilisation of landfill gas;
- Prepares the landfill gas production prognosis and perform the gas flow tests for verification of gas production forecast;
- Performs cost assessment of landfill site construction projects and degasification of municipal landfills.



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## **Oil and Gas Institute activities on behalf M2M Partnership**

1. Project: Grant awarded for Oil and Gas Institute in 2008
2. Workshops: organized in November 2008 under M2M Russia and Ukraine contract.



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## Activities on behalf M2M Partnership Project description

***Project Period:***

*1st September 2008 – 30 November 2009*

***Project Leader:***

*Oil and Gas Institute*

***Project Partners:***

*1. Cracow University of Technology- Department of Environmental Engineering - Research workers*

*2. SCS Engineers USA*

## Activities on behalf M2M Partnership Project Description

### **Tasks:**

#### ***I. Data Collection.***

*Task period: 7 months (September 2008 – March 2009)*

*Landfill sites data (if possible) will be collected directly from landfill site management companies. We would like to use statistical data – and data from Ministry of Environment.*

*LFG composition measurements will include five types of landfills during first track.*

## Activities on behalf M2M Partnership Project description

### *Tasks:*

### *II. Modeling and data analysis.*

*Task period: 4 months (April 2009 – July 2009)*

*We will modeling LFG production using three models:*

- a.) US EPA*
- b.) IPCC (TRIER 1)*
- c.) INIG.*

Modeling will based on data collected from landfill sites owners.

## Activities on behalf M2M Partnership Project description

### *Tasks:*

#### ***III. Feasibility study, workshop, consultancy.***

*Task period: 4 months (August 2009 – November 2009)*

*Feasibility study will cover one type of landfill site.*

*At the end of Project summary workshop will be organized.*

*Workshop will finish project realization.*



## Activities on behalf M2M Partnership Project description

### *Outputs:*

*1. Excel Database of Landfill Sites in Poland.*

*1.1. Landfill sites data*

*1.2 Landfill gas emission calculation.*

*1.3. LFG composition measurements.*

*2. Internet web site ([www.metmarkt.com](http://www.metmarkt.com)).*

*3. Folders, leaflets.*

*4. One Feasibility study (for selected landfill site).*

*5. Workshop (at the end of project).*

## Benefits of M2M Participation

- Technology and Knowledge Transfer
- Access to Sector Professionals
- Information Sharing with Partner Countries

## LFG capture and utilization problems identified in Poland

1. *Captured LFG is used within any cleaning (treatment) system. Raw gas is used. It cause many problems in utilization installations (CHP units).*
2. *In Poland large number of small landfill site exists. LFG stream captured from that landfills is on low level (50 m<sup>3</sup>/h).*
3. *Most common method of LFG utilization is CHP units use. Main problem in that case is heat energy loosing. Heat is not utilized.*

## Plans for future activities in M2M

- 1. Making a project proposals for new round of grant solicitations through M2M*
- 2. Workshop organizing (second part for participants who can not attend in workshop on November 2008)*
- 3. Supporting landfill sites owners in making a project proposals for new round of grant solicitations through M2M*

## Other ongoing projects

**Intelligent Energy**  **Europe**



**REDUBAR**  
a project of Intelligent Energy – Europe (IEE)

EIE/06/221/SI2.442663 -  
**REDUBAR**

[www.redubar.eu](http://www.redubar.eu)

Project title:

**Investigations targeted to the creation of legislative instruments and the reduction of administrative barriers for the use of gaseous fuels produced from renewable energy sources for heating and cooling**

The principal aims of the project are to increase:

- The use of biomass grown by European farmers and of collected bioresidues,
- Energy efficiency by polygeneration,
- Energy security by substitution a part of imported natural gas and
- Lighten the dangerously growing financial and budgetary burden of exploding prices for fossil energy carriers by stabilizing expenditures from RES.



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**Thank you for your attention**