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POLAND

Global Methane Initiative – Country update

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Poland is actively working to reduce methane emissions and improve its energy use in all FIVE areas

Coal

- Ongoing development of new technologies
- Modernization of existing installations
- Volume of captured methane is constantly rising

Agriculture

- Number of installations designed to obtain energy from waste (including from excrement) is rapidly increasing
- A big challenge to reduce methane emission from enteric fermentation

Oil & Gas

- Inventory of methane emissions from the transmission and distribution sector
- Maintaining maximum sealing of the storage and transmission system

Wastewater

- Energy potential of wastewater treatment plants is used in 60% (mostly in medium-sized and big cities)

Municipal Solid Wastes

- Installations are on all landfills where technical conditions allowed for that
- There is a legal obligation to have a unit producing biogas

Methane captured and used from coal mines in 2011 - first half of 2014

	Unit of measures		2011		2012		2013		First half of 2014	
	mln m ³	%								
Total volume of methane emission	mln m ³	%	803.0	100%	821.9	100%	838.2	100%	429.7	100%
Volume of captured methane	mln m ³	%	227.6	28.3%	250.9	30.5%	259.7	31%	146.4	34%
Volume of used methane from capturing	mln m ³	%	167.1	73.4%	180.9	72.1%	187.9	72,3%	103.8	70,9%

Since 2013, many new installations for capturing methane were built and the existing ones were modernised.

New methane-fueled engines were purchased and launched since 2013. Further investments in production of electricity and heat in cogeneration are planned for 2020.

Projects in development:

Report on the most effective use of methane for coal mines individually

Directional drilling with long holes for methane drainage

Fracturing of directional holes

Capturing and management of ventilation air methane (VAM)

Project within the GMI (2013-2014):

- Agricultural waste sector in Poland: Assessment of opportunities for methane recovery from livestock farm waste.

Biogas Source in 2012 and 2014

Biogas Source / Project Type	Number of Installations		Capacity [MW]		Average Capacity [MW]	
	2012	2014	2012	2014	2012	2014
Agriculture	21	47	23.07	54.78	1.10	1.17

Development of new biogas plants

Modernisation of agricultural holdings helped to reduce methane emissions

Launched agri-environmental program – promoting sustainable management system

Research on animal nutrition and breeding techniques

Biogas Source in 2012 and 2014

Biogas Source / Project Type	Number of Projects		Capacity [MW]		Average Capacity [MW]	
	2012	2014	2012	2014	2012	2014
Waste Water Treatment Plants	67	86	33.55	53.84	0.50	0.63

The amount of biogas produced in wastewater treatment plants is approx. 166 mln m³ per year

99,8 % of captured biogas is used to produce electricity and heat in cogeneration

This allows to meet 40-70% of the electricity needs of the wastewater treatment plants, and the whole demand for heat

Currently, the potential of energy from wastewater is used in approx. 60%. Further 12% of the potential is meant to be used from 2020

Project within the GMI (2013-2014):

- Polish Landfill Gas to Energy Consortium as a Platform for Capacity Building and Projects Development.

Landfill gas is used in Poland for energy purposes at larger landfills

Most common technology is electricity generation

Small and medium-sized landfills typically flare gas without energy generation

It is needed to find a way for energy production from LFG generated at small landfills

Due to the removal of landfills, within several years the need to reduce methane emissions from landfills can disappear completely

LFG to Electricity Installations in Poland

Voivodeship	Number of Installations		Capacity [MW]	
	2012	2014	2012	2014
dolnośląskie	5	9	4.34	7.39
kujawsko-pomorskie	8	7	3.81	3.74
lubelskie	1	1	0.50	0.50
lubuskie	1	1	0.50	0.50
łódzkie	4	5	4.21	4.15
małopolskie	6	6	2.93	2.93
mazowieckie	21	24	11.96	12.05
opolskie	1	2	0.45	0.45
podkarpackie	3	3	1.03	1.81
podlaskie	1	1	0.70	0.70
pomorskie	4	5	3.56	4.16
śląskie	14	15	11.19	12.82
świętokrzyskie	1	1	0.36	0.36
warmińsko-mazurskie	2	3	1.14	1.51
wielkopolskie	7	10	5.09	6.06
zachodniopomorskie	10	10	2.82	3.77
TOTAL	89	103	54.59	62.90

Reducing methane-generated emissions and enhancing its energy use are parts of the National Programme for Development of Low-Emission Economy, which is being prepared by the Ministry of Economy of Poland.

Poland participates in GMI and CCAC



The proposal of the dividing line between GMI and CCAC



- Technical consulting and global solutions



- Popularisation, education and awareness

Further steps for GMI:

- Applying for the status of an advisory body to the United Nations Framework Convention on Climate Change (UNFCCC)
- Focus on proposing solutions regarding methane issues worldwide

Thank you for your attention!

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