Ukraine Coal Sector Update to the 22nd Session of the Global Methane Initiative

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The level of coal extraction on Ukrainian mines was stable about 80 million tons until 2014. Taking into account the prosecution of war on the Donbas territory and partial occupation of Ukraine, coal extraction was sharply reduced. In 2014 it was 65.0 million tons, and from the beginning of 2015 - about 30.0 million tons. Extraction level from non-governmental mines in general balance of coal extraction is 83%, governmental – 17%.
Coal extraction on territory which situated under control of Ukrainian government, is executed on 56 big mines which refined the marsh-gas coal seam (35 mines absolutely marsh-gas release from 0,5 till 12 m³ per minute and 21 mines - > 12 m³ per minute and unsecure by accidental discharges) and extracted for 9 month of 2015 about 30 million tons of coal.
Volume of marsh-gas evolving and outgassing on Ukrainian mines. For 9 months of 2015 the volume of marsh-gas evolving and outgassing on mines which situated under control of Ukrainian government. Seizing by outgassing – 138 million m³ per year, which is more than 26% from total marsh-gas evolving.
In 2015 the outgassing is used on 15 mines which extracted 14,4 million tons or 48% from all coal production in Ukraine, of which 11 – non-governmental mines with annual extraction – 13,4 million tons and 4 – governmental mines with annual extraction – 1,0 million tons. Also in 1 mine the outgassing using periodically according to growth of coal manufactory.
Utilization of capture marsh-gas was realized: in 2013 on 14 mine boilers, in 2014 on 10 mine boilers, in 2015 only on 1 mine boiler.
EXPECTED RESULTS from project implementation of outgassing and utilization of marsh-gas in Ukraine

- Lowering of accident rate level and labour safety of miners;
- Increasing of alternative fuels;
- Laying the foundations for increasing of coal production volumes;
- Achievement of the possibility more inexpensive electric power and heat energy by mines;
- Receiving of additional financial resources on base of the results of mines (enterprises) joint activities with investor in sphere of outgassing and utilization of miners marsh-gas;
- Considerable reduces of greenhouse gases emissions;
- Creation of employment.
Insufficient level both for outgassing and for following utilization of marsh-gas defined by next reasons

1. The antiterrorist activity might have completed on the territory of Donbass and economic circumstances must be stabilized.
2. Absence of preliminary methane drainage approving technologies of coal field by well-boring using from the surface with using of hydrofracturing.
3. Low collector quality of bearing coal-seam strata. Penetrability of sandrock is $< 0.1$ millidarcy, porosity of sandrock is 5-6%.
4. Down level of extraction in mining face $< 1000$ tons per day which stipulates the slow pace of face advance.
5. Insufficient using of cutting-edge technology and technics for underground outgassing.
6. Insufficient undercapacity of most mines outgassing systems because of pipeline small-diameter 250 – 350 mm.
7. Non-using of controlling outgassing apparatus with maintenance of it’s parameters, first of all (concentration $> 25\%$) and performance.
8. Disadvantages in legislative and regulatory documents concerning stimulation of investments and preferential taxes.