«Use of coal mine methane at coal mines of JSC Arcelor Mittal Temirtau»

Astana 2017
ESTIMATION OF GEOLOGICAL RESOURCES OF CBM (coal bed methane)

- Russia: 84 trillion m³
- USA: 60 trillion m³
- China: 28 trillion m³
- Australia: 22 trillion m³
- India: 18 trillion m³
- Germany: 16 trillion m³
- South Africa: 13 trillion m³
- Ukraine: 12 trillion m³
- Kazakhstan: 8 trillion m³
- Canada: 8 trillion m³
- Poland: 3 trillion m³
Resources CBM in the Karaganda basin range from 850 billion m$^3$ to 4.0 trillion m$^3$. 
Volumes of CMM (coal mine methane) recovery and utilization in mines JSC Arcelor Mittal Temirtau, mln.m3
Every year, 5.2 million m$^3$ of CMM is utilized

Every year 4.1 million m$^3$ of CMM is utilized
Gas generator «JENBACHER JGC 420GS-S.L.», using CMM to generate electricity at the “Lenin” mine, 1.4 MW

For the stable operation of the Gas generator need 9 m3 / min CMM

Since 2011, 24 million kW have been produced
Utilized of 14 million m3 of CMM
The volume of extraction of CMM by means of degassing with a concentration above 25% and the potential generation of electricity (MW) from 2018 to 2026.
Major constraints

- **Instability of gas flows by volume, concentration and extraction point**

- **CMM projects are on the verge of profitability, the average payback period is about 10 years**

- **The absence of specialized companies for the utilization of CMM in Kazakhstan**

Necessary stimulating factors

- **Include in the list of priority activities determined for the implementation of the investment priority projects, activity for the production of electricity from the CMM**

- **Include in the concept of development of the fuel-energy complex of the RK before 2030 the electricity production with the use of CMM**

- **Insert CMM in the list of alternative sources of energy;**

- **Green tariff**
Thank you for attention!