

## SHALE GAS POTENTIAL ENVIRONMENTAL RISKS RESEARCH

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Recently, the global gas sector is experiencing significant changes – "shale revolution" in the US, increasing the share of liquefied natural gas in the total sales of the resource growth in the role of short-term gas supply contracts, the gradual departure from the formulaic approach to the formation of natural gas prices, liberalizing tendencies, experiencing regional gas markets – all this forms a new structure of the gas space and requires reform of the gas industry in Ukraine in accordance with current conditions. In Ukraine, many large deposits have been explored, such as Machuhske, Zagoryanske, Sagaidatske, Semirenkovske, Yablunivske, the main hydrocarbon deposits which are associated with significant depths, and productive strata are represented by reservoirs of different lithological composition. (Bulletin of the National Technical University "KhPI" № 6 (1360) PDF "Innovation researches in students' scientific work", pp. 90–94; Bulletin of the National Technical University "KhPI" № 1 (1361) PDF "Innovation researches in students' scientific work", pp. 18–23).

First of all, the unsatisfactory level of implementation of energy-saving technology, low efficiency of use of energy resources and the policy of "cheap labor" caused a high level of energy consumption and therefore low level of competitiveness of the national economy.

Problems of development of the gas industry in Ukraine have been widely reflected in the scientific literature. At the same time, questions remain less studied enhance energy security of the national economy based on the efficient use of its own energy potential of the gas industry in the current global conditions [1, 2].

Modern technological innovations, in particular the combination of horizontal drilling and multi-stage systems, hydraulic fracturing, allowed to use previously untapped resources of unconventional gas has changed the structure of the world energy balance and caused quite a stir regarding the production of unconventional gas in the whole world, and in Ukraine. (Bulletin of the National Technical University "KhPI" № 2 (1362) PDF "Innovation researches in students' scientific work", pp. 84–90). Given the above it can be argued that, despite all the risks of environmental and financial-economic, energy security is our priority.

### References:

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