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## NON-CONVENTIONAL HYDROCARBONS AS A SOURCE OF INEXHAUSTIBLE ENERGY RESOURCES

### Background

The issues of energy security and strengthening the resource base of oil and gas are highly relevant for Russia and reflected in the «Energy Strategy of Russia for the period up to 2030». Involvement of non-conventional hydrocarbon resources, which significantly exceed the reserves of conventional oil and gas, in the industrial production, allows to some extent support the production and cover the projected in the near future oil and gas deficit.

### Aims and Objectives

Studying the main types of non-conventional sources of hydrocarbons in Russia and other countries. Reviewing the prospects of their development on the industrial scale. Assessment of their possible development in terms of efficiency, reliability and safety.

### Methods

Set tasks were being performed using methods of economic and statistic analysis.

### Results

The authors substantiate the importance of non-conventional hydrocarbons as a reserve and a source of inexhaustible energy resources and analyze the issues of large-scale development of non-conventional sources of hydrocarbons and oil and gas production support in the future. The paper sets a stress on the need for comprehensive research aimed at improvement of existing production techniques and creation of new production technologies, as well as the development of methods to estimate economic efficiency of hydrocarbon production from non-conventional raw materials.

### Conclusion

The prevalence of non-conventional hydrocarbons resources, which are virtually inexhaustible, cast doubt on the widely held opinion regarding the imminent depletion of the world reserves of traditional energy resources. Today, in the world, with some minor exceptions, non-conventional sources of hydrocarbons have not been developed on an industrial scale due to insufficient knowledge of their potential, imperfect existing production technologies and the lack of economic assessments of the investments effectiveness in this direction. However, in the future, non-conventional sources of hydrocarbons are likely to have great prospects and can compete with traditional sources.

**Key words:** non-conventional hydrocarbons, energy resources, depletion, bitumen, shale hydrocarbons, matrix petroleum, gas hydrates, water- dissolved gas, technologies

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