RUSSIA’S POLAR OIL AND GAS POTENTIAL

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Abstract

Despite numerous speculations that the time window for petroleum is closing and soon other sources of energy will replace hydrocarbons, the reality is that it is not true and that such a view is too optimistic and premature.

According to many professional forecasts, fossil fuels will remain a primary source of energy supply for a long time. In addition to what has already been discovered, there is a huge global undiscovered hydrocarbon potential. The Arctic continental shelf is believed to be the area with the highest potential for oil and gas as well as for non-traditional petroleum resources such as gas hydrates.

However, development of Arctic resources, according to the experts’ opinion, is the most challenging project in the world. In order to correctly estimate its resources, develop efficient and cost-effective technology for their production and transportation to the market these yet undiscovered resources should be assessed and properly allocated. In this very important and challenging task international cooperation seems to be the most efficient tool (and maybe the only one?) enabling all concerned to overcome the many foreseen and not yet anticipated problems.

On top of technical and environmental issues there are political, economic, military and legal aspects of Arctic energy issues, as well as the Arctic policies of regional states. Their often conflicting interests will require cooperative solutions.

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**Fossil Fuels – The Main Source for Energy in a Long-Term Perspective**

Since the Stone Age, consumption of energy has grown exponentially. However, in the last few decades global consumption of oil and gas has increased linearly as the planet’s population has done. If one divides the energy consumption by the population, he or she will come to an interesting observation: average energy (oil and gas) consumption over the past few decades remains constant, equaling about one ton of oil equivalent (TOE) per capita. And the forecast for the next few decades follows this regularity, remaining the same. Increased consumption and apparent limited reserves are sources of worry among states, business entities and ordinary consumers:

- Governments face the challenge of making long-term decisions and investments in a time of great uncertainty that is only exacerbated by the financial crisis;
- For businesses, any disruption to the power supply can be hugely damaging;
- Consumers are also increasingly aware of what energy security means to them, in terms of what they spend on their fuel bills and how much it costs them to fill up at the gas station; and
- Physical security: how vulnerable are local supplies to interruptions? Do we have adequate diversity, back-up, storage and emergency planning?

Although there are continuous and successful efforts to develop renewable and non-traditional sources of energy enabling replacement of fossil fuels, the latter will remain the major source of global energy in the foreseeable future. There are many forecasts regarding future energy consumption and primary energy substitution. In spite of discrepancies they all agree with the

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