



Economic Problems of Exploring Hydrocarbons in Russian Northern Provinces in the Context of International Interests

Lyubov Vasilievna Larchenko^{1*}, Roman Aleksandrovich Kolesnikov², Galina Pavlovna Tumanova³, Valeriy Aleksandrovich Kibenko⁴

¹Herzen University, 48 Moika Embankment, 191186 Saint-Petersburg, Russia, ²Arctic Scientific Research Center, State Public Institution, Yamal-Nenets Autonomous District, 73 Respubliki, 629008 Salekhard, Russia, ³Arctic Scientific Research Center, State Public Institution, Yamal-Nenets Autonomous District, 73 Respubliki, 629008 Salekhard, Russia, ⁴Arctic Scientific Research Center, State Public Institution, Yamal-Nenets Autonomous District, 73 Respubliki, 629008 Salekhard, Russia. *Email: lubalar@mail.ru

ABSTRACT

The goal of the article is to analyze the present state and perspectives of exploring gas and oil resources of the Russian North in the context of economic interests of a number of foreign countries, to reveal both common things in interests of the both parties, and inconsistencies that must be aligned. The methodology of the research is based on the system approach to estimating the state of gas and oil resources of the Russian North and comprehensive analysis of aligning economic interests of Russia and a number of foreign countries. A complex of general scientific and special methods of research was used, including abstract-logical, balance, statistical analysis and others. The article shows that the Russian North is extremely rich in gas and oil resources that are both currently exploited and promising for reclaiming especially on the shelf of Arctic seas. It analyzes reasons of the decrease in the gas and oil production in the country that has occurred over recent years. It is caused by the fall of the demand for hydrocarbons in the world, sectoral sanctions, and the decrease in the production of the mineral resources base. Gas and oil resources of Russia fall within the interests of a number of foreign countries, mainly West European countries for which stable provision of the economy with raw hydrocarbons becomes one of the most important strategic tasks. Long-term economic interests of Russia coincide with the interests of the European Union (EU), however, not fully. The authors come to the conclusion that in case of supplying hydrocarbons economic interests of Russia and EU countries must be aligned not only in terms of searching for mutually profitable forms of cooperation but also solving basic inconsistencies that lie in the basis of opinions discrepancies.

Keywords: Gas and Oil Resources, The Russian North, Arctic Shelf, Western European Countries, Asia-Pacific Countries, Alignment of Interests

JEL Classifications: D74, F00, L71, Q32, Q34

1. INTRODUCTION

The irregularity of geographical location of gas and oil resources is a peculiarity of their allocation in the world. The Russian North is the largest area with hydrocarbons reserves and includes a number of unique gas and oil-and-gas provinces both in the European part and in Siberia and in the Far East. Oil and gas provinces of the Russian North and the shelf of Arctic seas are the most promising in terms of gas and oil production and play one of the key roles in the total global energy balance (Ollus and Tuuli, 2008).

Over the last years Russian oil companies have been characterized by striving to extensive growth by increasing the resource base to

the prejudice of processing capacities. It increased the raw focus of the economy and acquisition of non-profile assets. It is necessary to remember that production of hydrocarbons under Arctic conditions and especially on the continental shelf is extremely difficult and important. The capital intensity of the sea gas and oil production can be compared to the project related to domesticating the space. On average it exceeds the capital intensity of producing oil on land 2-3 times (15-20 times on the shelves of Canada, Alaska, Norway) (Ostisty et al., 1999. p. 138). Therefore, the attraction of foreign production companies especially West European ones to the region is rather positive. Their participation in international consortiums on reclaiming large deposits of Arctic that require large investments and leading technologies as well as in the creation of joint enterprises with Russian oil companies

is reasonable. It fully complies with long-term interests of both Russia and Europe.

At the same time, hydrocarbon resources of the Russian North are also strategically important for the economy of a number of European countries and countries of the Far Eastern region. Interests in reclaiming Russian hydrocarbons seem to be mutual. However, as practice shows, in this area there are serious controversies between the countries, and they have recently got worse.

By the present time Russian researchers have conducted a lot of researches devoted to the problems on reclaiming hydrocarbons of gas and oil reserves of the Russian North. At the same time, problems related to mutual economic interests of Russia and foreign countries in the area of reclaiming and supplying gas and oil resources to markets of the European Union (EU) and countries of the Far-Eastern Region have not been duly analyzed from the scientific point of view. The current growth of contradictions between Russia and some European countries determined the direction of the research this article is based on.

2. RESEARCH METHODS

The article uses the results received by Russian (Gabrielians, 2000; Kalamkarov, 2010; Korzhubaev 2010; Pavlenko, 2013; Selin and Bashmakova, 2010; Skufiina, 2015; Tokarev, 2015) and foreign researchers (Ollus and Tuuli 2008; Kenneth et al., 2008) on problems related to functioning of the gas and oil sector of Russia, reclaiming the Arctic shelf, and economic cooperation with foreign countries on reclaiming and supplying hydrocarbon resources to European countries. It uses the researches of Ernst and Young¹.

The majority of the article authors work for the Arctic Scientific Research Center (Salekhard, the Yamal-Nenets Autonomous District [YNAD]). One of its research directions is the studying of problems on reclaiming hydrocarbons of the Arctic zone of Russia, and cooperating with foreign consumers of the Russian gas and oil. Direct observation and analysis of the current processes in the gas and oil production during a long period of time together with studying the primary factual material and holding experts' opinion poll allowed to research and form the unified picture of the process taking place in this area.

The research methodology is based mainly on the system approach to the estimation of the state of gas and oil resources of the Russian North and comprehensive analysis of aligning economic interests of Russia and a number of foreign countries. A complex of general scientific and special methods of research was used, including abstract-logical, balance, statistical analysis and others. Poll of experts' opinion on problems related to the development of the gas and oil business was applied.

Official statistical data of the Russian Federal Service of State Statistics, Department of Energy of the Russian Federation,

British Petroleum (BP) British gas and oil company, and official data of the government of the YNAD served as the informational basis.

3. RESULTS

3.1. Reserves of Hydrocarbons in Oil and Gas Provinces of the Russian North

During a long period of time the north of the Western Siberia has been holding the leading position in terms to the reserves and production of hydrocarbons in the country. Herewith, in the YNAD more than 95% of the Russian gas was produced. In terms of the oil production, the district holds the second place after the Khanty-Mansiisk Autonomous District (the KMAD) - 7%. In the KMAD they produce the main share of the Russian oil. In order to more clearly show the level of hydrocarbons production in the north of the Western Siberia of Russia, it is possible to make the following comparison. If the YNAD and the KMAD were independent states, in terms of the gas production the YNAD would hold the first position in the world, while in terms of the oil production the KMAD would give way only to Saudi Arabia and the USA. Over recent decades, considerable reserves of oil have been explored in the north of the European part of Russia and Eastern Siberia as well as in the shelf zone of Arctic seas and seas of the Far East (Table 1).

The shelf of Arctic seas is a large potential source of hydrocarbons (Kenneth et al., 2008). According to researchers' estimations, in the Arctic zone there are more than one fourth of the global reserves of hydrocarbons. Supposedly, in the Russian sector of Arctic there are the largest reserves of gas and oil. Herewith, 6 million km² out of 6.2 million km² of the Russian shelf have reserves of gas and oil, i.e., this is almost all its territory. Melting of ice observed as a result of warming makes plans on their reclamation real.

In spite of the fact that Russia has recently started reclaiming gas and oil deposits on the shelf, more than 20 large gas and oil basins have already been explored, 32 deposits have been discovered, including ones of the largest in the world - Shtockman, Risanovskoye, and Leningradskoye. As a whole, epy initial total gas and oil resources of the shelf of the Western Arctic make up about 100 billion t. of the oil equivalent. Herewith, the Barents Sea, the Kara Sea, and the Pechora Sea include about 80% of the initial potential resources of hydrocarbons of the whole continental shelf of Russia (Dodin, 2007; Konyshev and Sergunin, 2011).

Considerable reserves of oil have been recently explored in the Timan-Pechora gas and oil province in the eastern part of the Nenets Autonomous District (the NAD) as well as gas and oil - on the shelf of the Barents and Kara Seas. The oil potential of the Timan-Pechora province is almost 2 billion t. Herewith, the re-estimation made by specialists of the Timan-Pechora RDE showed that the province contains hydrocarbon resources by 20% more than it was expected. Such amount of the raw hydrocarbon provides 40-50 years of commercial exploitation (Komi Has Got 20% More Oil and Gas than Expected, 2011).

¹ Ernst and Young is an international leader in the area of audit, taxation, transactions support and consulting.

Table 1: Mineral resources base of raw hydrocarbon of basic oil and gas provinces of the Russian North

Oil and gas province	Ultimate reserves	Cumulative production
Timan-Pechora	Oil: ABC1-1,360.872 million t, C2-564.793 million t. Natural gas: ABC1-642.163 billion m ³ , C2-101.296 billion m ³ Condensate: ABC1-45.683 million t, C2-4.658 million t	Oil 712.835 million t, level of reserve depletion 34% Gas-438.338 billion m ³ , level of reserve depletion 41%
West Siberian	Oil: ABC1-11.613 billion t, C2-7.249 billion t Natural gas: ABC1-32.646 trillion m ³ , C2-9.539 trillion m ³ Condensate: ABC1-1.204 billion t, C2-831.44 million t	KMAD-Yugra: Oil 10,210.988 million t Gas 1,261.229 billion m ³ Gas-condensate 30.307 million t YNAD: Oil 836.568 million t Gas 16,041.737 billion m ³ Gas-condensate 149.471 million t Oil 29.2 million t Free gas 10.3 billion m ³
Leno-Tunguskaya	Total initial resources (geol./extract.) are 90.9/54.4 billion t. water metering units, including oil (geol./extract.)-44.2/11.8 billion t, free gas-39.1 trillion m ³	No data available
Leno-Viluyskaya	Total initial resources (geol./extract.) are 3.8/3.3 billion t. water metering units, including oil (geol./extract.)-0.5/0.1 billion t, free gas-3.0 trillion m ³	No data available
Barents sea (shelf of the Barents Sea)	Oil: ABC1-114.488 million t, C2-322.175 million t Free gas: ABC1 category-4,191.844 billion m ³ , C2 category-590.871 billion m ³ , condensate: ABC1 category-57.424 million t., C2 category-4.979 million t	No data available
Timan-Pechora (sea)	Oil: ABC1-0.012 million t., C2 category-0.025 million t Gas: ABC1-6.024 billion m ³ , C2-15.988 billion m ³	No data available
West-Siberian (sea)	Oil: ABC1-0.528 million t., C2 category-16.875 million t Condensate: ABC1-35.936 million t., C2-36.13 million t Free gas: ABC1-2,368.202 billion m ³ , C2-2,091.692 billion m ³	Oil (as on 01.01.2013) 0.002 million t Free gas 139.445 billion m ³ Gas condensate 9.739 million t
Far-Eastern (shelf of the Sea of Okhotsk)	Oil: ABC1-271.321 million t., C2-90.748 million t Free gas: ABC1-1,194.879 billion m ³ , C2-640.85 billion m ³ Condensate: ABC1-98.773 million t., C2-66.294 million t	Oil (as on 01.01.2013) 88.586 million t Free gas 96.82 billion m ³ Gas condensate: 9.811 million t

Compiled by the authors according to (Kalamkarov, 2010)

3.2. Exploring Deposits of Arctic Seas Shelves

The Prirazlomnoye oil deposit and Shtokman gas condensate deposit are the most prepared for the exploitation. The Prirazlomnoye deposit is located 60 km to the North-West from the Varandey village of the NAD. The Shtokman deposit, one of the largest deposits in the world, is located 600 km from Murmansk. The reserves of the deposits are estimated at 3.9 trillion m³ of natural gas and about 56 million t. of gas condensate. In order to understand how rich the reserves of this deposit are, it is enough to say that this gas volume would be enough for the global consumption during 1.3 years. In order to implement the project on developing the deposit, in 2008 a joint enterprise Shtokman Development AG was established. It included Gasprom (51%), Total (25%), and Statoil (24%). However, afterwards both the Norwegian company Statoil and the French company total resigned from the shareholders of Shtokman Development AG. In accordance with the agreement between Total and OJSC "Gasprom" signed in June, 2015, Total transferred 25% of shares of the Shtokman Development AG to Gasprom. Thus, OJSC "Gasprom" became the only shareholder of the Shtokman Development AG and increased its share of participation from 75% to 100%. To a large extent the beginning of putting the Shtokman deposit into operation depends on the global gas market environment that changes quickly as well the sanction policy of the USA and a number of West European countries in relation to Russia. It was planned to export a large share of the Shtokman gas to the USA. However, developing the production of shale gas in

the USA caused strong structural shifts in the global gas market and considerably affected the sales of condensed natural gas. Nevertheless, there is no doubt that condensed natural gas will be in great demand in the future, too, especially in Asia.

The shelf of the Pechora, Barents and Kara Seas will be reclaimed under severe climate conditions with the extreme ice situation. The development of hydrocarbons deposits requires special sea platforms, underwater communications, and icebreaker fleet. The implementation of this project is extremely expensive. That's why the cost of the extracted hydrocarbons will be rather high, especially at the initial stage. Besides, the development of shelf deposits of hydrocarbons is related to considerable financial, technical, and ecological risks. Here it is reasonable to study and use foreign experience of the countries working on the shelf (Pavlenko., 2011). For these purposes, Rosneft and BP signed an agreement for developing hydrocarbons of the Kara Sea. However, the development of both the continental part and the shelf zone of the European part of Siberia are restrained by undeveloped infrastructure, especially related to transportation. For example, in the NAD there are no railways, and the road system is developed very poorly. 1,000 km² of the NAD territory is covered only by 0.32 km hard-surface highways of general use. This is 114 times lower than the similar indicator for the country. The situation in the YNAD and in the north of the Krasnoyarsk Krai is similar. The latest polls of business community representatives showed that 72% of the respondents believe that the transportation

problems most considerably restrict the opportunities related to implementing business projects (Current and Promising Project of the Yamala 2016).

3.3. Problems of Developing Gas and Oil Production

Over the past decade in Russia the tempos of gas production have both increased and decreased. Herewith, in 2014 and in the first half of 2015 saw a stable decrease in the gas production both for export and internal consumer (Figure 1).

As a whole in Russia, in 2014 the production of gas decreased by 5% as compared to 2013, and almost by 21% for 6 months as compared to the same period of 2014 (Figure 2). In 2014, export supplies of gas decreased by 11%.

The YNAD is the main gas supplier. In 2014 it produced only 94 % of the volumes produced in 2013 (Figure 3), and for 6 months of 2015 - only 91% of the volumes selected during the same period of 2014.

What are the reason behind the decrease in the Russian gas production? Firstly, it is related to the decrease in gas purchases by traditional importers (EU countries, countries of the near abroad, especially Ukraine). The production of shale gas in the USA had a great impact on the demand for the Russian gas by European countries. The increase in the use of shale gas in the economy of the USA led to the release of large volumes of coal. It resulted in an increase in the export of cheap coal to European countries. In their turn, European markets started replacing the Russian gas by cheaper coal (Melnikova, 2013). Secondly, the fall of the demand for the Russian gas in European countries is correlated to the increase in the volumes of condensed natural gas supplies and growth of production volumes in the shelf zone of the North European countries (Korotkov et al., 2013).

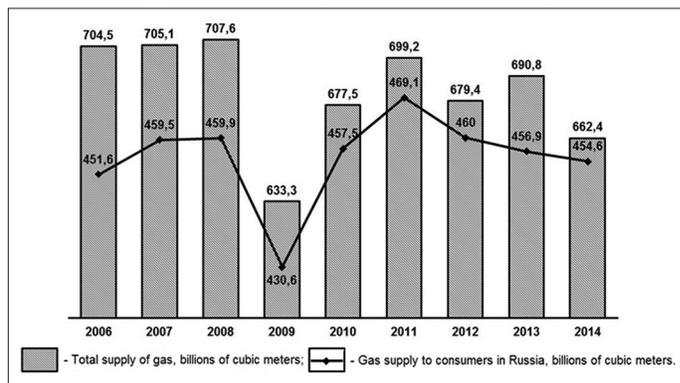
At the present time Russia is searching for new gas markets. However, in spite of the interest of the countries of the Asia-Pacific region in Russian energy resources, the present development of the gas market of these countries and the lack of the gas pipe line system that is similar to the European direction does not allow to fully compensate for the losses from the decrease in purchases by the EU countries (Bessel, 2015). Moreover, over the recent years, the USA has been increasing its supplies of coal to Asia. In the future it can also influence the volumes of the Russian gas purchase.

The decrease in the demand for the Russian gas is also caused by internal factors: The growth of its price on the internal market, a low increase in the industrial production, and consequently, the demand for electrical energy, some results of the energy efficiency program, introduction of nuclear reactors, and contemporary combined-cycle gas turbines.

Another problem of the gas and oil sector is the decrease in the volumes of the production of the mineral resources base that does not cover the production. For a long time since the Soviet times there was an opinion about the inexhaustible supplies of oil in the national economy (Korzhubaev, 2010; Suslov and Korzhubaev,

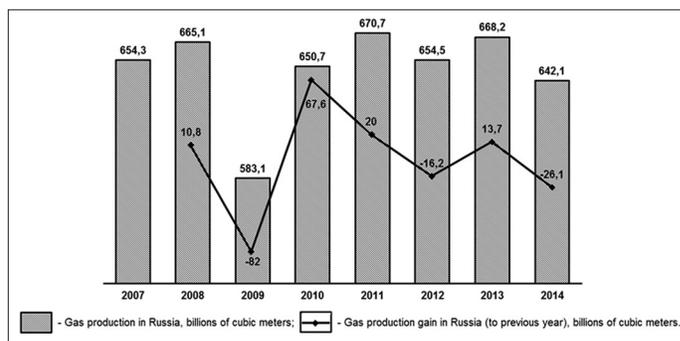
2009). However, recently a number of problems related to the increase in its production have arisen. We will shortly mention two basic reasons without going into details. Firstly, the estimation of the oil reserves by using a modern methodology applied in the international practice showed that the reserves of oil in the country are much lower than it is estimated by national oil companies. Secondly, oil in the country is produced in a rather exhausting manner (Shmatko, 2010; Selin and Bashmakova, 2010) (Figure 4).

Figure 1: Supplies of Russian gas to Russian and foreign consumers



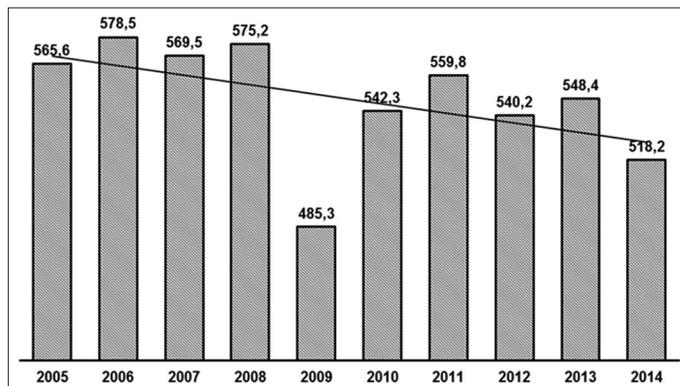
Source: Compiled by the authors on the basis of official data of the Department of Energy of the Russian Federation

Figure 2: Dynamics of gas production in Russia



Source: Compiled by the authors on the basis of official data of the Department of Energy of the Russian Federation and Government of the Yamal-Nenets Autonomous District

Figure 3: Dynamics of gas production in YNAD, billion m³

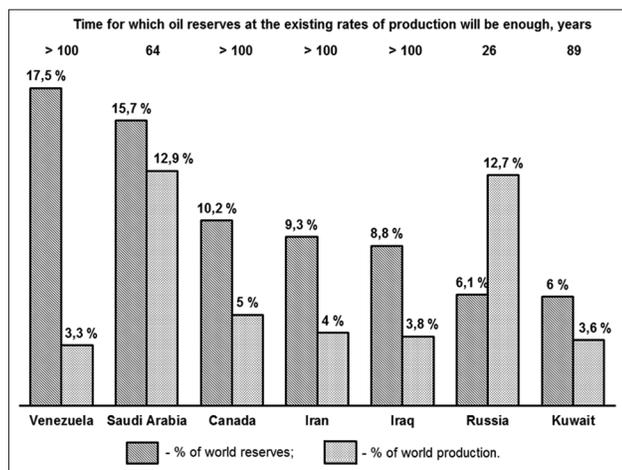


Source: Compiled by the authors on the basis of official data of the Department of Energy of the Russian Federation and Government of the Yamal-Nenets Autonomous District

While Russia holds the 6th place in terms of its oil reserves, in terms of its production we are on the same level as Saudi Arabia. Herewith, unlike Saudi Arabia where the growth of the oil production is associated with the reserves increase, in Russia the increase of reserves does not cover the oil production. Therefore, the decrease of the proved reserves intensifies (Figure 5). That's why researchers and experts are afraid that if no relevant measures are taken, the fall in this area is inevitable (Selin and Bashmakova, 2010).

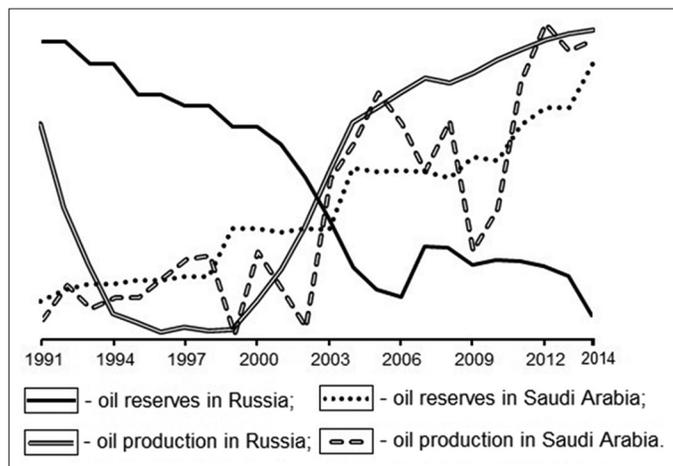
According to the estimation of Ernst and Young experts, under the current level of the oil production its reserves will suffice for approximately 20 years. According to the estimations of the same company, in order to maintain the volume of the oil production on today's level after 2030, the expenses for geological exploration must be increased more than three times ("Perspectives of Developing Petroleum Geological Exploration in Russia. Sight Beyond the Horizon of 2025" 2011).

Figure 4: Correlation of oil reserves and production in terms of countries, 2014



Source: Compiled by the authors according to BP Statistical Review of World Energy (2015)

Figure 5: Dynamics of changes of oil reserves and production in Russia and Saudi Arabia



Source: Compiled by the authors according to BP Statistical Review of World Energy (2015)

The raw prosperity of Russia at the end of the XX century and during first 10 years of the XXI century was based on the achievements of the Soviet geologists. At the present time there are few new explored deposits of hydrocarbons, and the reserves of the newly developed deposits cannot be compared to those developed during the Soviet period. In the 1970s the average volumes of reserves of the developed deposits were 77 million t., and now they are only 1 million t. (Baskaev, 2011).

So, what has happened to the geological exploration that was so successful during the Soviet times? At the beginning of the 90s of the XX century, Russia started using a new system of subsurface management that excluded the regulation of the geological explorations sector only by the state. It essentially led to its degradation. As a result, since the 90s the current developed reserves of oil decreased by more than 20%, what is more almost by 30% in the West Siberia. The under-compensation of new oil reserves is estimated at 1.5 billion t. (Larchenko, 2012).

The problem related to activating exploration activities escalated long ago. The first steps on overcoming the escalated problems have been made. The strategy of the geological sector development up to 2030 has been accepted. The budget financing of the industry has been considerably promoted. The order on creating the Rosgeology state company that includes 37 federally owned enterprises has been signed. Since the adoption of "Basics of State Policy of the Russian Federation in Arctic for the Period up to 2020 and following years" the reclamation of Arctic has been one of the strategic tasks of the Russian state policy.

Sectoral sanctions against Russian companies may cause specific difficulties especially in reclaiming hydrocarbons deposits in deep water areas and the Arctic shelf. However, on the other hand, it is possible that sanctions are a chance to finally produce domestic equipment of the same quality as foreign. Though it is most likely that it will not be possible to produce it quickly and it will take much time.

3.4. International Aspect of Exploring Russian Gas and Oil Resources

In the international aspect gas and oil resources of the Russian North are of great interest, above all, for West European countries. For countries of the Asia-Pacific Region Russia remains an important but not the main potential source of hydrocarbons supply (Chumakov, 2011).

The interest of West European countries is explained, first of all, by the decrease in the proper resource base. Besides, such factors as the nearness of deposits of the Russian Arctic to them, the developed pipeline transport due to which Russian hydrocarbons are supplied to dozens of European countries, are as important. Especially such opportunities grew in relation to the construction of the Nord Stream pipeline (Figure 6).

At the present time it is possible to clearly see that European countries depend on supplies of energy products from Russia and Organization of Petroleum Exporting Countries (OPEC). Russia supplies up to 70% of its gas to the EU countries. It is 39% of the natural gas they import or 27% of the gas consumption in the

Figure 6: Scheme of gas pipe lines from Russia to West European Countries

EU. Herewith, Russia is the only supplier for six countries. The largest consumers of the Russian gas are Germany and Italy (Way to Strategy of European Energetic Safety, 2014). It is entirely clear that Europe tries to avoid monopolization of hydrocarbons supplies both from the OPEC and Russia. The strategy of European energetic safety aims at diversifying external supplies, developing of energy saving technologies and technologies related to receiving energy from renewable sources, and developing technologies on shale gas. This urge became especially strong after the latest events in Ukraine.

As for the OPEC, today this is the largest supplier on the hydrocarbons market. Its share includes about 40% of the global production and about 60% of the global export. But the main thing is its large resource base. It includes 70% of the proved global reserves of oil that are compensated on a stable basis. The prime cost of the oil production in such large OPEC members as Saudi Arabia, Iraq, Iran and Kuwait is less than USD 2 per barrel. It drastically increases the competitiveness of the Middle Eastern oil as compared to the Latin American (from 2 to 5 USD/barrel), Russian and North American (from 5 to 10 USD/barrel), and especially West European (above 10 USD/barrel) ones. The above prime cost of the oil production is averaged for countries because it is doubtlessly different in the deposits located in different geological conditions and at different stages of the development. As for Russia, at the explored old deposits the prime cost of the oil production does not exceed USD 6, while at the new deposits it is about USD 16.

According to experts of the European Commission of the EU and International Energy Agency, in spite of rather successful searches for alternative sources of energy, in the near future the prices for hydrocarbons will grow in spite of the sharp decrease that takes place from time to time. It is related both to the decrease in the demand and global tendency of the increase in the prime cost of

their production because of inevitable transfer to the exploitation to deposits with more hard-to-produce reserves. In addition, the confirmation of the suggestion about the over-estimation of the proved reserves of OPEC may influence the growth of prices. If the situation develops according to this scenario, the companies that apply modern technologies of production, have the multidivisional pipe range for transporting raw materials, and have highly efficient technologies of their processing, developed systems of products sale, first-rate management will become the most competitive ones.

In the Asia-Pacific region the greatest interest to energetic resources of the North and Far East of Russia is manifested by China. Above all, it is determined by energy-intensive economic growth of this country. For Chinese companies additional guarantees in relations with suppliers are traditionally important mainly due to the participation in the ownership. At the present time essential limitations for Russian companies to enter the Chinese market of energetic resources include the lack of the Chinese companies' access to the ownership for mineral resources, rather high prices for Russian hydrocarbons, the presence of alternative importers, and the absence of mutual trust. However, it is necessary to note that at the present time the tempos of the growth in the production of its own gas by China have considerably decreased. However, when China manages to produce shale gas, it is quite possible that under such development scenario there will be no additional need in import (Supplies of Russian Gas to China, 2013).

4. DISCUSSION

Perspectives of the development of cooperation with European countries, above all, are related to the implementation of the project on creating the North-European gas pipeline named Nord stream. The pipeline is laid under the Baltic Sea from the Portovaya Bay (Vyborgskiy Area of the Leningrad Region) to the German city of

Greifswald. The length of the pipeline is about 1.2 thousand km. The supplies of the Russian gas to European consumers by using the underwater pipeline started in November 2011 through putting into operation the first line of the pipeline. When the second line of the pipeline had been put in, the capacity reached up to 55 billion m³ per year. It is ultimately planned to construct the third and the fourth lines. In the future it is planned to use the gas from the Shtokman deposit (Korzhubaev, 2010).

It is undoubtedly that for the EU countries the provision with the raw hydrocarbon is and will be in the future one of the most important tasks of stable development of the economy. However, it is necessary for the oil of the Russian North to become at least somehow competitive in comparison to the oil of the OPEC countries. It results in the necessity to decrease the prime cost of its production and transportation. Implementation of modern technologies, combining of financial and intellectual resources of foreign and Russian business, alignment of state policy of the EU countries and Russia play the main roles in solving this problem. Unfortunately, the present-day reality testifies to the contrary.

Economic interests witness in favor of the fact that the EU is objectively interested in the following:

1. Long-term import of gas and oil resources from deposits of the Russian North and continental shelf of Arctic,
2. Formation of the optimized transportation infrastructure in order to decrease the expenses related to transporting hydrocarbons,
3. Investing in the highly profitable gas and oil industry, transportation area in the Russian North, and,
4. Maintaining favorable ecological situation in the north of Europe.

At the same time there are essential inconsistencies. We will consider, in our opinion, the basic ones.

The first inconsistency is related to the fact that every party strives as much as possible to process products in its country. It is necessary for the creation of the maximum added value. For Russia this is also the creation of the petroleum refining industry sector insufficiently developed in the country.

The second inconsistency may include differences in the present terms of reclaiming hydrocarbons of Arctic. This is a strategic reserve for the EU. It is reasonable to exploit it to petering-out of gas and oil reserves in the North Sea, i.e., in 10-15 years. For Russia this is a resource that will help to raise the economy of the Northern territories from the depressive state in the coming 5 years.

And, finally, thirdly, this is today's difficult situation caused by events in Ukraine. As a result of confrontation, they give priority to political goals instead of economic ones. It is difficult to predict anything under such conditions. However, there is no doubt that Europe is interested in stable functioning of the gas and oil complex in the Russian North. The conflict is supposed to be regulated, and economic interests will prevail over political ones. Economic interests witness in favor of developing the cooperation in the European North of Russia and West European countries.

5. CONCLUSION

Economic effect from reclaiming raw hydrocarbons in the North and Arctic shelf for Russia can be undoubtedly very high. However, it is necessary to understand that the scenario according to which the EU countries, because of the increasing need in hydrocarbons, will have to finance their production and buy raw materials at the prices determined by our country is hardly probable. Even under favorable investment climate in Russia and international environment the basic amounts of Western investments are likely to be received in 5-10 years when the hydrocarbons reserves in the Northern Sea will be proximal to depletion. It is necessary to be ready for the situation that all large-scale projects will be implemented on the edge of profitability. It means that businessmen will be sensible to absolutely all risks. State structures of federal and regional levels will have to develop processing capacities, create the production infrastructure, and certainly - by involving private capital. In order to decrease the dependence on external-economic and political factors, in future the indispensable condition of successful development of the gas and oil sector of Russia must become the stimulation of the development of production of national and innovational equipment that complies with the leading samples of the world and modern technologies.

West European countries are an important factor in organizing gas and oil production in the Russian North. Firstly, Western Europe is a receptive but highly competitive market of production distribution. Secondly, this is an extensive but rather "fastidious" source of investments. Thirdly, this is an access to the latest technologies but with active constraints. It is necessary to strictly comply with the key economic interests of Russia discussed above for the production of hydrocarbons in the Russian North and Arctic shelf to become a locomotive of economic growth of the country. Along with this, it is necessary to align economic interests of all interested parties including West European countries. It must be expressed not only in searching for mutually beneficial forms of cooperation but also in solving basic inconsistencies that are responsible for differences in opinions.

REFERENCES

- Baskaev, K. (2011), State consolidates exploration. *Russian Oil*, 10, 35-44.
- Bessel, V.V. (2015), Perspectives of Asian direction of exporting fossil fuels from Russia. *Drilling and Oil*, 9. Available from: <http://www.burneft.ru/archive/issues/2015-09/4>. [Last accessed on 2015 Sep 10].
- BP Statistical Review of World Energy. (2015). Available from: <http://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy.html>. [Last accessed on 2016 Jan 05].
- Chumakov, D.S. (2011), Basic vectors of international cooperation in arctic. *Bulletin of the Moscow University, Series 25. International Relations and World Politics*, 2, 41-61.
- Current and Promising Projects of Yamal, (Figures and Facts). Report on results of Vostoc Capital Researches. Available from: http://www.yamaloilandgas.com/files/yamal_otchet_26_01.pdf. [Last accessed on 2016 Jan 25].
- Dodin, D.A. (2007), Mineral Resources of the Russian Arctic, (State, Perspectives, Areas of Researches). Saint-Petersburg: Science. p129.
- Gabrieliants, G.A. (2000), Geology, Searches and Exploration of Oil

- and Gas Deposits. Moscow: OJSC Nedra Publishing House. p587.
- Kalamkarov, L.V. (2010), Petroleum Provinces and Regions of Russia and Bordering Countries. Moscow: Oil and Gas Publishing House of the Gubkin Russian State Oil and Gas University. p570.
- Kenneth, J., Ronald, R., Donald, L., David, W., Timothy, R., Janet, K., Thomas, E., Christopher, J., Marilyn, E., Craig, J. (2008), Circum - Arctic Resource Appraisal: Estimates of Undiscovered Oil and Gas North of the Arctic Circle. U.S. Geological Survey Fact Sheet, Reston. p4-12.
- Komi Has Got 20% More Oil and Gas than Expected. (2011). Available from: <http://www.bnkomi.ru/data/news/10790/>. [Last accessed on 2016 Jan 05].
- Konyshov, V.N., Sergunin, A.A. (2011), Arctic in International Politics: Cooperation or Competition? Russian Institute for Strategic Researches. Moscow: Russian Institute for Strategic Researches. p194.
- Korotkov, S.B., Semenova, E.V., Yakovlenko, V.V. (2013), Resources basis, forecasting of extraction and consumption of natural gas in European countries. NTC News of the Gas Science, 5(16), 165-172.
- Korzhubaev, A.G. (2010), Impact of global financial and economic crisis on the petroleum complex of Russia. Region: Economics and Sociology, 2, 272-271.
- Larchenko, L.V. (2012), Reproduction of resources base as basis of national safety of the country (through northern regions). Management and Business Administration, 1, 20-29.
- Melnikova, S.I. (2013), Contradictory decarbonizing of the EU energetics: Coal versus gas. Energy Policy, 3, 53-64.
- Ollus, S.E., Tuuli, J. (2008), Russian Energy Sector - Prospects and Implications for Russian. Challenges for Oil and Gas Development in the Arctic. Tromso: Arctic Frontiers. p22-24.
- Ostistiy, B.K., Luzin, G.P., Merkulova, O.N. (1999), Problems of Exploring of Hydrocarbon Resources of Shelf Water Areas of the Western Arctic. Apatity: Publishing House of the Kolsky Research Center of the Russian Academy of Sciences. p149.
- Pavlenko, V.I. (2011), Problems of arctic cannot be frozen. Russian Oil, 2, 16-25.
- Pavlenko, V.I. (2013), Arctic zone of the Russian Federation in the system of securing national interests of the country. Arctic: Ecology and Economics, 4(12), 16-25.
- Perspectives of Developing Petroleum Geological Exploration in Russia. Sight Beyond the Horizon of 2025. (2010). Available from: [http://www.ey.mobi/Publication/vwLUAssets/Future-of-the-oil-2011-RU/\\$FILE/Future-of-the-oil-2011-RU.pdf](http://www.ey.mobi/Publication/vwLUAssets/Future-of-the-oil-2011-RU/$FILE/Future-of-the-oil-2011-RU.pdf). [Last accessed on 2016 Jan 29].
- Selin, V.S., Bashmakova, E.P. (2010), Meaning of northern and arctic territories under new geo-economic conditions of the Russian. Region: Economics and Sociology, 3, 23-39.
- Shmatko, S.I. (2010), Report on the Issue Related to Master Plan of Developing Oil Sector for the Period Up To 2020. (October 28, 2010). Available from: <http://www.minenergo.gov.ru/upload/iblock/6e8/6e8da40ca500782d70924ec59304bfe0.doc>. [Last accessed on 2016 Jan 25].
- Skufina, T.P. (2015), New economic policy in the context of problems of balanced development of northern territories of Russia. Regional Economy: Theory and Practice, 29(404), 25-34.
- Supplies of the Russian Gas to China. (2013), Energetics Bulletin, 1, 8-11.
- Suslov, V.I., Korzhubaev, A.G. (2009), Potential of developing oil and gas transportation systems in Russia. Region: Economics and Sociology, 1, 127-144.
- Tokarev, A.N. (2015), Risks of tax moves in oil complex. Siberian Financial School, 3, 43-48.
- Way to Strategy of European Energetic Safety. (2014). Available from: http://www.inogate.org/documents/5_Hans_Van_Steen_EU_Energy_Security_RUSSIAN.pdf. [Last accessed on 2016 Jan 15].