# **Energy Policy of Russia: The Possibilities of Energy Cooperation Between Russia and Taiwan**

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Fuel and power complex of Russia is an important part of the world fuel and power complex. The territory of Russia is 10 % of the Earth territory, and 34 % of the world supply of natural gas, more than 12 % of oil, 23 % of coal and 14 % of uranium are concentrated in Russia. Russia produces approximately 10 % of the primary power-resources in the world.

The share of fuel and power complex in Russian economy composes more than 25 % in the commodity output of industry and 55 % in the total value of export. The production potential of Russian fuel and power complex includes approximately 150 000 oil bore-holes, 7 000 gas bore-holes, oil-refining plants with the total capacity 252 mln. tons, rated power of electric power stations is 214 mln kilowatt/hour. As for the transfer of power and fuel, we have approximately 47 000 km of oil mains, 151 000 km of gas mains and more than 2,5 mln. km of electricity transmission network.

Fuel and power complex of Russia is one of the main branches of the Russian economy. Such factors, as globalization of fuel power engineering, expanding of foreign trade dictates the new approaches for Russian Government to the aims of development for Fuel and power complex of Russia. At present the main aims in the macroeconomic policy of Russia in the sphere of Fuel and power complex are the follows:

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- Assistance for the integration of Russian Fuel and power complex to the world economy, especially in the neighboring with Russia regions;
- Creation of the effective conditions for export potentialities of Russian Fuel and power complex;
- Attracting the investments (including foreign investments) to the Russian Fuel and power complex.

Lack of investments during last 15 years is the main problem of Russian Fuel and power complex. The requested volume of investments to Russian oil industry is estimated approximately 40 - 50 bln. USD. Otherwise fall in extraction of oil forecasts 1,5 times till 2010. At present investing to geological researchers are very needed for oil industry. The result of lack in geological researchers during last years is violation of needed ratio between increase of supplies and extraction – 1:1 instead of 2:1.

At present approximately 30 % of equipment in oil and gas industries is deteriorated and 60 % of equipment is exploited more than 20 years. It is the reason of the low level of effectiveness of many Russian oil and gas enterprises, increasing in losses during transportation and damages. Old equipment causes high costs of manufacture and transportation of Russian oil and leads our enterprises to low competitor. Every year oil and gas equipment is bought up in the world in total sum approximately 110 bln. USD. In Russia before 2003 our oil and gas companies bought up the equipment in total sum approximately 3 bln. USD. It didn't correspond with the role of Russia in the world fuel and power engineering.

The necessity of the investments in Russian Fuel and power complex also conditioned by distant location in a cold climate conditions of the majority of newly investigated oil and gas-fields with the absence (or minimum) infrastructure there. At present Western Siberia is the main Russian fuel base. In accordance with the forecast, the share of Western Siberia in the nearest 20 years in investigated oil and gas-fields will fall from present 80 % to approximately 60 - 65 %, and the share of Eastern Siberia, Russian

Far East and Russian Arctic seas will increase twice. Therefore arrangement, mastering and exploitation of the new oil and gasfields connected with the high expenditures of extraction and transportation of oil and gas and require large-scale investments.

The creation of the effective conditions for export potentialities of Russian Fuel and power complex is also very important aim in the macroeconomic policy of Russia. At present Europe is the main market for Russian Fuel and power complex. Many European countries are traditionally orientated to Russian fuel and power resources and highly developed export infrastructure formed between Russia and those countries during last decades. Many fuel and power investment projects are realized or prepared now: building of gas mains "Yamal – Europe", "Blue stream" (gas main to Southern Europe and Turkey), North-Europe gas main; oil mains from Caspian region and from Western Siberia through new sea ports at the Gulf of Finland (Baltic sea) in Leningrad region.

The role of Southern and especially Eastern direction will increase in Russian export of fuel and power resources in the nearest future. The "Eastern Strategy" of Russian Fuel and power complex development is very important now also for Russia and for the neighboring countries in Asian-Pacific region. Those countries are world leaders in the rates of economic growth and increasing in consumption and import of oil and gas. The prices for hydrocarbons are higher in those countries than in other regions of the world because of their distance from the main world oil extraction regions. Therefore it will be very important for Asian-Pacific region to diversify sources and routes of oil import.

The stocks of hydrocarbons in the eastern part of Russia forms more than a quarter of all Russian stocks (17,5 bln.tons of oil and 60 trln. cubic m. of gas). According with the scientific forecast, if the world prices for oil and gas will be at present level till 2030, Russian Fuel and power complex owing to the extraction of hydrocarbons in this region can earn extra 700 – 800 Bln. USD.

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According with the estimation of Russian Geological institute, the total volume of investments in such projects must be 130 bln.USD. We understand, that considerable part of these investments will be foreign investments.

Maximum effect from the opening up of Eastern-Siberia hydrocarbons will be reached simultaneously with the development of local transport and industrial infrastructure. Therefore, we need the "complex" opening up of Eastern-Siberia and Russian Far East. Thus we can most effective use the geographical position of Russia – between two great economic centers – Europe and Asian-Pacific region.

The president of the biggest Russian oil transportation company "TRANSNEFT" in one of his last interview estimated that the cost of transportation of oil threw East-Siberian oil main is 6,5USD/barrel. Thus, exploitation of the new oil deposits will be profitable already if the price will be 25 USD/barrel. Building of oil pipe-line Eastern-Siberia – Pacific Ocean with the volume of pumping over of oil more than 50 mln.tons will give impulse for exploitation of a new oil deposits. The investment projects of such exploitation could be realized joint with foreign investors, including Taiwan investors.

Besides investment projects dealing with exploitation of a new oil deposits, gas processing investment projects could be also very interesting for foreign investors. East-Siberian gas maintains helium, propane, ethane and many other substances. Complex extracting of these substances would give the possibility for creation new chemical enterprises with export-oriented production. Countries in Asian-Pacific region consume gas in form of liquefied natural gas, therefore investment projects of produces of liquefied natural gas in Russian Far East and delivery it to Asian-Pacific countries could be also very interesting projects for foreign investors.

A geological peculiarity of deposits in Eastern Siberia and Far East dictates the necessity of simultaneously extraction of oil and

gas. This stipulates for low specific expenditures for creation of transport and other infrastructure. But, in the other hand, it increases necessities in investments.

According with the estimation of Russian Geological Institute, we have the following necessity of investments for exploitation of oil and gas resources in Eastern Siberia and Far East during 2005 – 2030 (bln.USD):

	Oil	Gas	Total
Geological prospecting	12,0	2,5	14,5
Construction of	30,5	11,8	42,3
deposits			
Construction of processing enterprises and transportation system in Leno- Tungusskaja oil- gasbearing province	1,3	9,1	10,4
	Oil	Gas	Total
Construction of oil and gas pipe lines for export	13,9	5,7	19,6
Total (without Sahalin projects)	57,7	29,1	86,8
Sahalin projects	-	-	40

According with the Federal Government solution in 2002 GAZPROM was defined as a coordinator of the Programme Eastern Siberia opening up. GAZPROM realizes this Program jointly with two Russian state-owned companies: TRANSNEFT' and ROSNEFT'. It was a right decision, because it is the way of solving macroeconomic and social problems (for example, gasification of Siberian towns and villages, etc.). Simultaneously, we understand that the Programme for opening up resources in Eastern Siberia and Far East is very complex and capital-capacious.

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Therefore it is very important to attract private investments in investment projects within the framework of this Programme.

It is the huge Programme, and our Government wouldn't give the priority to the specific countries or private companies in realizing the investment projects in Russian Eastern Regions. Therefore, it is very favorable period now for the investors from Taiwan to analyze the possibilities for investing. In my opinion, the biggest and the most interesting investment projects in Eastern Siberia and Far East would begin to realize during nearest 3 or 5 years. Simultaneously, Russian Government in the nearest future will provide for developing of the legislation, dealing with concessions, conditions of exporting, etc.