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Eastern vector of Russia's energy policies

Dear colleagues:

Energy issues in the modern world going through globalization are among the most urgent ones. This was clearly demonstrated by the recent G-8 summit of the eight industrially developed states held in St Petersburg.

Global energy security has become an integral part of the global energy issues. It is now universally recognized but the issue itself is treated differently by different states and it causes heated discussion. To no small degree this is fed by a mixed understanding on the part of the world community concerning the consolidation processes in the oil and gas sector of Russia, and by the recognition of the very fact that our state has come to the global energy sector as a serious player and for long. A record-high price hike for energy and aggravation of the controversy between the energy producers, consumers and shippers has attributed a particular impact to energy security issues.

Russia with regard to own competitive positioning on the global markets treats energy security as first of all secure supply of all states and population of the planet with energy.

Russia's position in covering the world energy demand is getting more and more important. Currently its territory equivalent of 13% of the Earth and inhabited by less than 3% of the planet population concentrates over 34% of natural gas and about 13% of the world proved oil reserves. Russia leads the world in international natural gas trade and is second in exports of oil and petroleum products.

Russia's geographic position predetermines its particular role in energy transit within the Eurasian continent thus providing the most efficient configuration of the energy infrastructure not only in the west-east dimension of the continent but also in the south-north and south-north-west ones. The above dimension of Russia's energy sector is important not only for its economy but also for the process of developing the energy markets and for the world economy in general. Thus the energy sector of Russia is an intrinsic part of the entire world energy market.

The economy aspect occupies a particular place therein relative to the energy issue. The world dynamics and tied with it energy consumption in the second half of 20th and early 21st centuries are characterized by unexpected fluctuations in the demand and prices for key energy resources, primarily oil.

It seemed that after the oil shocks of the 1970s and the 1990s world economy would have switched to a sizable energy conservation and that demand for energy in general would go down. But it is not quite so. No doubt developed states of Europe and America register a lower demand due to the changes in the structure of their respective economies, first of all by cutting down on the energy-intense industrial production. But the phenomenon of economic growth in the developing states especially in China and India and some other states of the APR and Latin America amends the process.

These conclusions are backed up by the world economy forecast and by the relative forecast of energy demand made by International Energy Agency.

Slide 1. World GDP annual growth

Europe, North America, Japan and other APR states, Latin America and China are now leading the world economy (downwards numbering).

Slide 2. World GDP annual growth

In the period as far as 2030 the mean annual world GDP growth rate will show different dynamics by the region. The top mean annual rate will be in China (6.3%), India (5.1%), other APR states (3.6%) and Russia (3.5%). That is to say the states whose future is to a great extent connected with the more energy-intense industry and not the tertiary sector, as different from the developed states. Excess demand for energy in these states will also be tied with their overall economic and social development. That means the mean annual energy demand rate in the forecasted period will not go down but perhaps will be somewhat higher than in the last 20 - 25 years.

Slide 3. Demand for key energy sources forecast in dynamics

According to International Energy Agency the mean annual demand rate for all energy sources in the period between 2003 and 2030 will make 1.8% against 1.7% in the preceding 25 years. And the total demand for all types of energy will get over 300 MBDOE (million barrels per day of oil equivalent). At that oil and gas will remain the main fuels though oil has been losing its positions as the key energy for a number of years now. Thus in 1980 oil covered 45% of the world energy demand. This indicator has gone down to 34%. Primarily gas will be in demand: its average daily and respective annual demand will grow at the rate of 2.2%.

Slide 4. World demand for gas

The demand for gas will grow in all regions (see the left part of the slide) but especially in the developing states and Russia. The developing states will satisfy about ¾ of the world demand of the period (the right side of the slide) which is connected with the structural peculiarities of these states. As is seen from the diagram there is high demand for gas in the industrial sector and in the overall energy balance of the economy. The same concerns oil demand of the above states. Now the developing states consume 2 to 5 times more oil per their GDP unit than the developed ones.

Slide 5. Gas trade by the world region

Russia and the Caspian states, the Middle East and Africa are, and will remain the key players on the world gas market in the future too. The share of Russia in the world net gas exports may reach 37 – 42%.

For Russia as the actual and potential exporter important are certain changes in the structure of the forecasted gas imports by the region. Europe will remain the largest importer but the share of North America and the APR states in the world imports will grow. If in 2010 Europe's share in gas imports will be approximately 71%, of North America about 19% and 10 % for the APR, then in 2030 this indicator will make 56, 24 and 20% respectively.

As for investment support of the world energy demand it looks as follows.

Slide 6. Forecast of the energy sector investment demand

To actually satisfy the energy demand, the sector requires over 500 billion US dollars per annum or 16 trillion dollars of investments in 30 years. At that the fuel component receives about 40% of the total investments into the world fuel and energy sector.

I dwelt on it above on the example of gas but the demand for other Russian energy sources is there and it will be growing, in particular for oil and coal that are concentrated mainly in the country eastern regions. Considering the growing demand for them on behalf of the APR including North American states the eastern vector of Russian policies in the world fuel and energy sector is becoming or rather has become fundamental.

Slide 7. Russian oil and gas trade markets (current state)

Now Russian gas exports are all for Europe and the CIS states. Only 4 to 5% of oil is exported to the Asian states. But by 2015 the share of the Asia Pacific region in Russian oil exports will grow to 15 – 18%. The implementation of eastern energy policies is tied with the oil pipeline network of Eastern Siberia – the Pacific Ocean first of all and its construction has already started, the first 175 kilometers of pipe have been laid.

At the same time the prospective demand for gas reserves in the APR will grow as was shown above. To cover the demand it is planned to create the unified natural gas system of production and shipment and supply of Eastern Siberia and the Far East with regard to the opportune exports to the markets of China and other Asia Pacific states. All the above measures must ensure the efficient export of energy resources in the eastern direction as a complex of oil + gas + coal. The infrastructure of that project should have an integral and outstripping character.

The gains from the project are obvious: the involvement into operation of reserves in Eastern Siberia and Yakutia, the opportunity to become a prominent trader on the APR market of oil, gas and their products, and to promptly react to the changing world market conjuncture. The construction of the pipeline leading to the Pacific shore will fully load the oil processing capacities of the Russian Far East and will improve the competitiveness of the petroleum products through lower transportation tariffs. The development of gas and oil reserves and the construction of gas pipelines present a potential for building petrochemical (oil and gas processing) industry in the Far East of Russia, i.e. for actual added value production growth and for diversification of the regional industrial sector.

When we discussed the options for the construction of the oil pipeline to the Pacific shore we stood for the route that would to a maximum degree involve into the project the operating oil pipelines in Khabarovsk and in Komsomolsk-na-Amure, upgrade them and carry out technology advances so as to produce quality petroleum products and to increase their domestic consumption and exports. This correlates well with the overall world tendency for in-place processing.

Looking at the map of Russia one can make sure that the main oil processing plants are rather far from ports. The Far Eastern project in that sense looks much more attractive. In this context it might be more feasible to regard the option of building the pipeline to the port of Vanino. But Transneft top management did not find our arguments in favor of that oil pipeline destination weighty at least so far. Nevertheless the Pacific shore of the Khabarovsky krai remains in the sphere of keen interest of national and foreign business in connection with the Sakhalin shelf projects being implemented.

Slide 8. Gas pipelines in Southern Far East

The construction of the gas pipeline from Komsomolsk-na-Amure to Khabarovsk to be ended this year in fact paved the way to a higher-capacity network gas export pipeline to China, Korea and LNG exports to Japan. The negotiations held recently between the Khabarovsky krai Government and Exxon top management demonstrated an opportunity to launch the project in the nearest future. Under the other project, the Eastern Siberia – Far East gas pipeline system based on large-scale exports of network gas from Russia to the APR between 2007 and 2015 the gas production centers of Eastern Siberia are expected to be linked and the export gas pipeline to the Russian ports in the Far East, to be built. Commercial natural gas reserves in Eastern Siberia and the Sakha (Yakutia) Republic allow for it.

The most efficient option for oil exports by tanker is the construction of the oil terminal in De-Kastri port carried out by Exxon.

Slide 9. Oil pipeline and key Sakhalin-1 facilities

According to the project the pipeline 660 mm in diameter crossed Sakhalin island and connected Onshore Production Facility with the double-point mooring of De-Kastri oil jetty.

Slide 10. De-Katsri port oil terminal of Exxon

The terminal is located next to the operating terminal of RN-Sakhalinmorneftegaz LLC over 1 MTPA capacity operated since 1998. The terminal will run year-round and round the clock. The annual oil shipments will make 12 MTPA for the tankers of up to 110 thousand tons capacity.

Shifting focus of Russia's energy policies to the east opens up positive prospects also for the Asia Pacific states. The formation of the infrastructure of international network in East Russia in combination with production and processing facilities developing in the Far East itself will enhance the stability of energy supplies to the regional states and will also help solve the energy security issue in North-East Asia. The growth of the domestic demand for gas in Eastern Siberia and the Far East will improve the environmental situation thanks to a transfer of production facilities to environmentally friendly fuel and will tell positively on the region.

Inactivating the eastern vector of Russia's energy policy is quite obvious. The measures undertaken by the Russian state authorities and the private sector, by foreign companies to develop the petrochemical industry in the east of the country and to create here a transportation system for hydrocarbons and in general to improve the energy infrastructure in eastern regions of Russia nourish fertile soil for growing NEA energy markets.

Along with that, for the Russian side to feel fully confident about its energy projects in Eastern Siberia and the Far East it needs more clear signals from its partners in the Asia Pacific as to the contents of their energy policies and current and prospective energy demand as well as their desire and opportunity to participate in the Russian energy projects. Only agreed and coordinated effort of all states can duly safeguard the regional need in energy and guarantee energy security to all APR states without exception.