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***GAS COOPERATION BETWEEN RUSSIA AND NEA  
COUNTRIES: PROSPECTS, BARRIERS,  
OPPORTUNITIES***

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## PLAN OF THE REPORT

- 1. The Eastern vector is a strategic direction in Russia's energy development in the first half of the 21st century**
- 2. Gas supply to NEA: Russian perspectives**
- 3. Risks, barriers and possibilities of gas cooperation between Russia and NEA countries in questions and answers**
- 4. Necessary conditions and initiatives for successful mutually beneficial energy cooperation between Russia and NEA countries**



***1. THE EASTERN VECTOR  
IS A STRATEGIC DIRECTION IN RUSSIA'S  
ENERGY DEVELOPMENT IN THE FIRST  
HALF OF THE 21<sup>ST</sup> CENTURY***



# **EASTERN VECTOR OF RUSSIA'S ENERGY POLICY**

- **National interests of Russia require intensification of its mutually beneficial cooperation with Japan, China, Korea and other countries in Northeast Asia**
- **Creation of new energy centers in East Siberia and the Far East will increase energy security of Russia, restore and strengthen broken fuel and energy ties between the regions and solve many important federal, interregional and regional problems**
- **Fast and large-scale development of energy sectors in these regions and penetration to the energy markets in Japan, China, Korea and other countries of Northeast Asia should be considered as a primary means to timely ensure the appropriate positions of Russia in this strategically important region of the world**
- **Creation in the East of Russia and in Northeast Asia of a developed energy infrastructure in the form of interstate gas-, oil pipelines and transmission lines will decrease the cost of energy carriers, enhance reliability of energy and fuel supply to consumers in different countries and make solving the environmental problems easier**



# EASTERN ENERGY POLICY AS AN INSTRUMENT FOR SOLVING URGENT PROBLEMS IN RUSSIA

Eastern energy policy of Russia, as part of Eastern economic policy, is not an end in itself, but an instrument for solving many principally important problems of federal, interregional and regional levels

## *Social, economic and other problems*

1. **Social** . improvement in comfort, style, quality of people's life in the eastern regions of Russia
2. **Political** . consolidation and integration of the RF entities, strengthening the unity of the economic and energy space of RF
3. **Geopolitical** – reinforcement of Russia's positions in the world economic system, in the community of APR, Central and Northeast Asia countries
4. **Economic** – enhancement of economic efficiency and competitiveness in the East of Russia, increase in supply of resources and accessibility to the remote areas of the country, expansion of active economic space of Russia, creation of conditions for attraction of foreign investment and advanced technologies, etc.

## *Energy problems*

1. Improvement **in adaptability and reliability** of energy and fuel supply to consumers
2. Increase **in energy and environmental security** of the country and regions
3. **Perfection** of territorial and production structure of Russia's energy sector and particularly in its eastern regions
4. **Formation of transport and energy infrastructure in Russia's East** – oil and gas pipeline systems, transmission lines– and creation of **common transport and energy space in Russia, etc.**



*Russia completed the work on preparation of a large number of program documents determining the strategic development of the economy and energy in the East of the country until 2030 in the context of energy cooperation between Russia and EAST Asia countries, such as "Energy Strategy of Russia until 2030", "Program for Creation in East Siberia and the Far East of a Unified System of Gas Production, Transport and Supply with Potential Gas Export to the Markets of China and other APR Countries" (Eastern Gas Program), " Strategy of Socioeconomic Development of the Far East and the Baikal region until 2025", "Strategy of Socioeconomic Development of Siberia until 2020", "Energy Development Strategy of East Siberia and the Far East until 2030", "Program for Development of Oil Refining Capacities in East Siberia and the Far East", etc.*



***Official program documents suggest a considerable increase in mutually beneficial supplies of Russian energy resources to the markets of China, Japan, Korea, and other East and Northeast Asian countries***



## ***2. GAS SUPPLY TO NEA: RUSSIAN PROSPECTS***





**The Russian government,  
regional authorities and  
companies have started  
large-scale development of  
energy resources in the  
East of the country**



**The Russian government entrusted JSC “Gazprom” with the coordination of creation in East Siberia and the Far East of the Unified system of gas production, transportation and supply to consumers, considering possible export of natural gas to the markets of China and other NEA countries**

**“Gazprom” has elaborated a program on development of natural gas resources in the East of Russia, gasification of Russian regions and natural gas delivery to NEA countries**



# PROSPECTS FOR NATURAL GAS SUPPLIES TO THE MARKET OF APR COUNTRIES



Source: V.P. Timoshilov, FIEF-2011

B. Saneev. Presentation at the APERC Annual Conference 2014 26 & 27 March 2014, Tokyo, Japan





### ***3. RISKS, BARRIERS, AND POSSIBILITIES OF GAS COOPERATION BETWEEN RUSSIA AND NEA COUNTRIES IN QUESTIONS AND ANSWERS***



***Question 1: Can Russia provide long-term reliable supplies of natural gas to the NEA countries in the required (mutually agreed) amounts and with appropriate quality indices?***

***Question 1 – Answers:***



**Russia is exporting natural gas to 22 countries of Europe. The main share of gas export (nearly 62%) falls on the counties of Western and Central Europe. The major buyers of gas are Germany, Turkey, Italy and France. Natural gas is supplied to the European countries mainly under the long-term contracts, some of them were concluded in the frameworks of the intergovernmental agreements.**

***Russia has a sufficient resource base to meet the growing demand of the European countries for natural gas.***



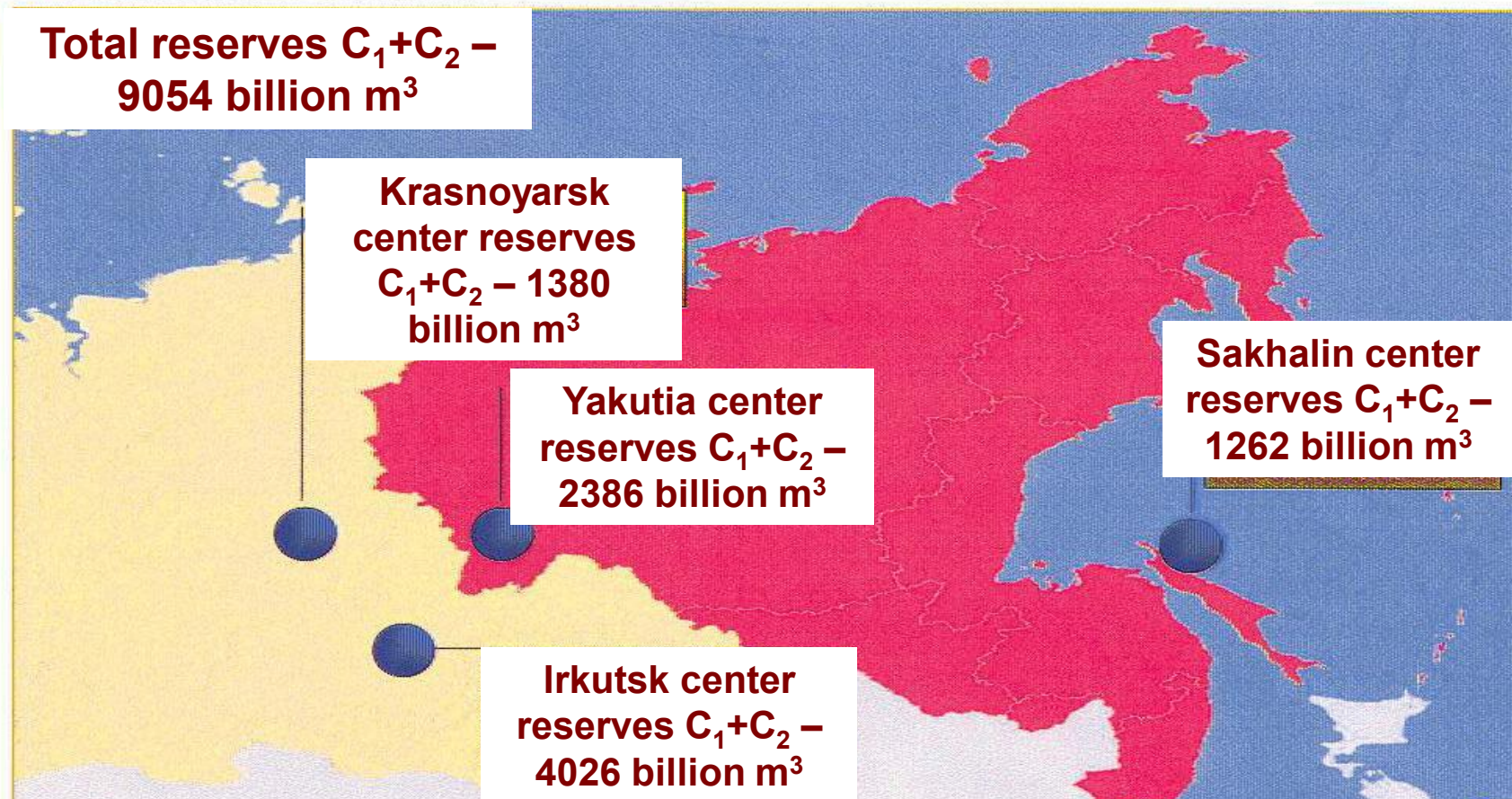
**At the same time, the growing demand for gas in the NEA countries and convenient geographical position of Russian gas resources with respect to the external market creates conditions for the organization of the Russian natural gas supplies to these countries from the gas fields located in East Siberia and the Far East.**

**The largest explored reserves of natural gas are situated on the Siberian platform in East Siberia and the Sakhalin shelf in the Far East (next Slide).**





## PROSPECTIVE GAS PRODUCING CENTERS IN EAST SIBERIA AND THE FAR EAST



**Source:** Program of constructing a unified system of gas production, transportation and supply in East Siberia and the Far East, considering potential gas export to the markets of China and other APR countries (main provisions) – JSC “Gazprom”, 2007. – 289 pp.





**The explored large fields of natural gas on the Siberian platform and the Sakhalin shelf and the existing estimates of potential increase in reserves give grounds to assert the possibility of creating there a large-scale gas industry with the annual production of about 180-200 bln m<sup>3</sup> of gas**

***This will make it possible to meet regional demands for hydrocarbons and export their considerable amounts***



## **Natural gas markets for the Russian consumers in the East of Russia *will be relatively limited:***

- **The natural gas market will be determined primarily by solvent demand and necessity to solve the environmental problems. *An annual demand of the eastern regions for natural gas as a furnace fuel in 2020-2025 is estimated at 20-25 bln m<sup>3</sup>***
- **Potentialities of natural gas production are many times higher than domestic demand**
- **Reliability of natural gas supplies from the eastern regions of Russia to NEA countries is very high**



***Question 2: Is there a niche for the Russian natural gas in the gas markets of the NEA countries?***

***Question 2 – Answers:***



**Russian hydrocarbon resources become *increasingly more attractive* in the markets of NEA countries as a result of increasing investment and other risks in the Middle East**



**Natural gas consumption in the NEA countries has soared in the last years. The past decade saw virtually a double increase in gas consumption in this region, which made up 260 billion cubic m in 2010.**

**According to the estimates made by leading energy agencies further rise in the natural gas consumption is expected in the region at the rates higher than average in the world.**

**By 2030 gas consumption in the region may increase by 2-2.5 times and according to some estimates - by 3-3.5 times.**

***The possible total export of Russian natural gas to NEA countries in 2030 is estimated (in the optimistic scenario of gas consumption in the region) at 125-150 billion cubic m, including 70-85 billion cubic m of piped gas.***



***Question 3: What viewpoint on the gas price formula do the countries exporting and importing natural gas have?***

***Question 3 – Answers:***



## ***Prices of energy resources become the priority in negotiations***

**Natural gas will not be cheap in Russia, since the policy of leveling the prices of energy carriers and adjusting the price structure of some fuel types to the world ratios comes into play**



**Construction of export gas pipeline to supply Russian natural gas to NEA countries will largely depend on the guaranteed consumption of Russian gas in these countries and on the relationship among the natural gas prices in gas markets of Russia, Europe and NEA countries.**

***In European countries Russian piped natural gas is sold at a price of USD 400-500 per 1000 cubic m .***

***Selling the same amount of gas in the markets of NEA countries as in the markets of Europe Russia is interested in receiving revenue which is at least not lower than that from gas trade with Europe.***





**Question 4:** What rivals does Russian natural gas have in the markets of NEA countries?

**Question 4 – Answer:**

**Natural gas of other countries and involvement of national unconventional gas sources (fields) in the economy**



***Question 5:*** What other products (in addition to liquefied and pipeline natural gas) can Russia supply to the markets of NEA countries?

***Question 5 – Answer:***



At present the necessity to deliver not only hydrocarbon resources, but **higher value-added** products of their advanced processing to the international markets is clearly recognized at all levels in Russia. For this purpose it is planned to increase in the eastern regions of Russia the output of oil products and create **gas-chemical industry** whose products are in rather high demand in Russia and in NEA countries



- Natural gas of the Siberian platform is unique in the content of helium and ethane, which essentially increases *its consumer value*
- Natural gas of the Siberian platform contains more than **0.3-0.5%** of helium and **4.6-7.2%** of ethane
- Helium reserves (**categories C1+C2**) in the gas fields of the Siberian platform are estimated at **8.6 billion m<sup>3</sup>**, or above **20%** of the world helium reserves
- In the future Russia can be the world largest helium exporter



***Question 6: Are there any political risks in gas cooperation between Russia and NEA countries?***

***Question 6 – Answer:***



**For all possible directions in the development of gas production in the country and supplies of Russian natural gas to the domestic consumers and to the markets of other countries the General scheme of gas industry of the Russian Federation- 2030 gives an analysis of the main risks related to their implementation and also considers the administrative solutions that make it possible to mitigate these risks.**

***The considered potential risks include political risks. These risks can be well illustrated with the example of the construction of the interstate gas pipeline on the Korean peninsula Russia – North Korea – South Korea . Despite all the obvious economic and energy benefits for Russia, North Korea and South Korea the political risk makes it difficult to make a final decision on its construction.***



## ***4. NECESSARY CONDITIONS AND INITIATIVES FOR SUCCESSFUL MUTUALLY BENEFICIAL ENERGY COOPERATION BETWEEN RUSSIA AND NEA COUNTRIES***

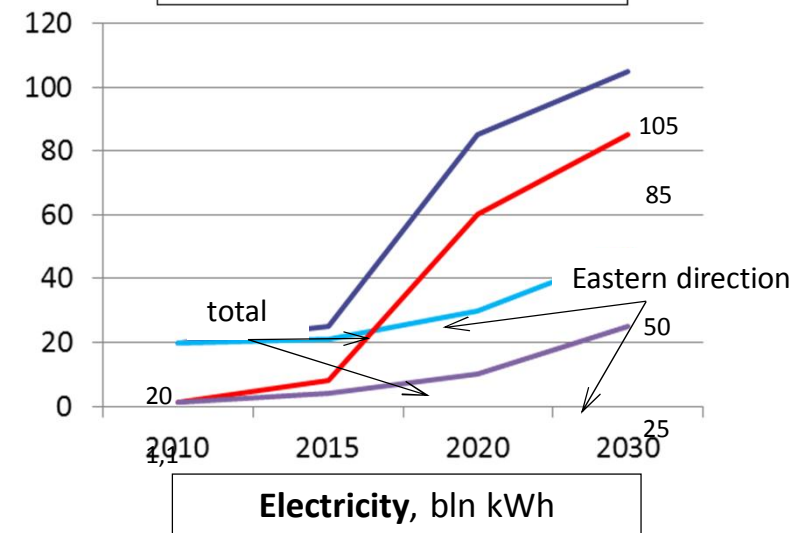
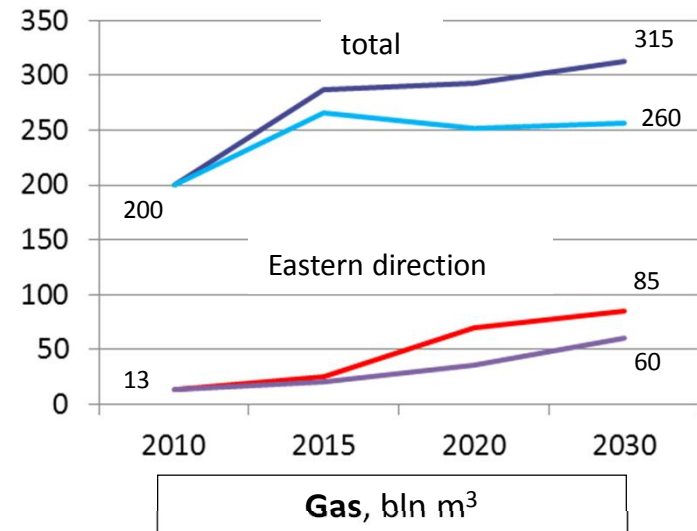
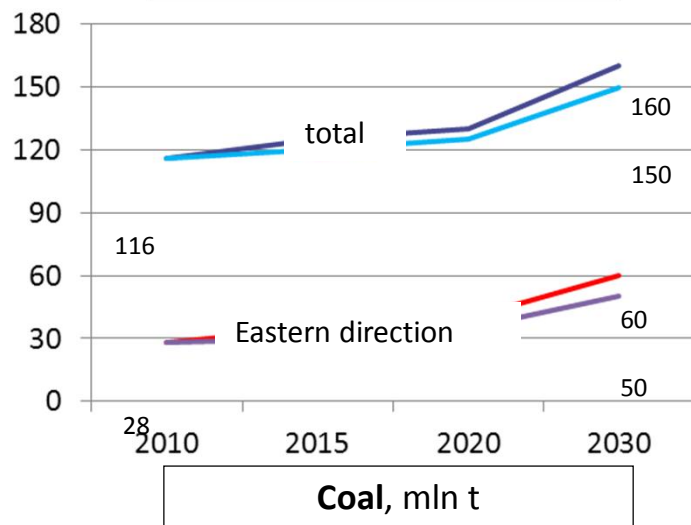
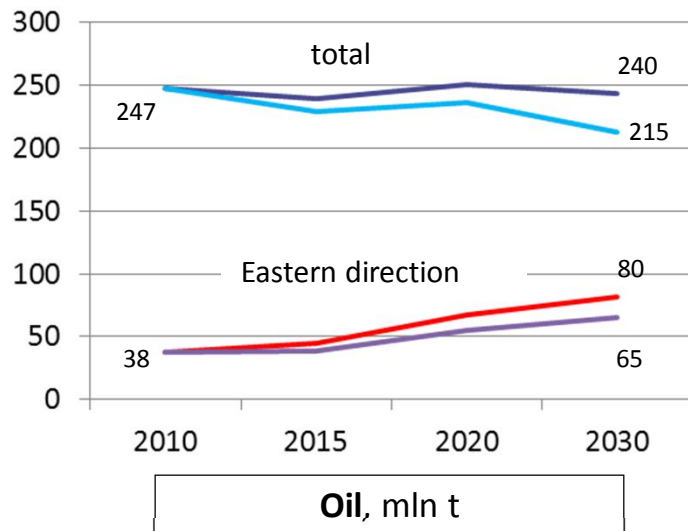


## ***4.1. Energy of Russia's East in the first quarter of the 21<sup>st</sup> century***





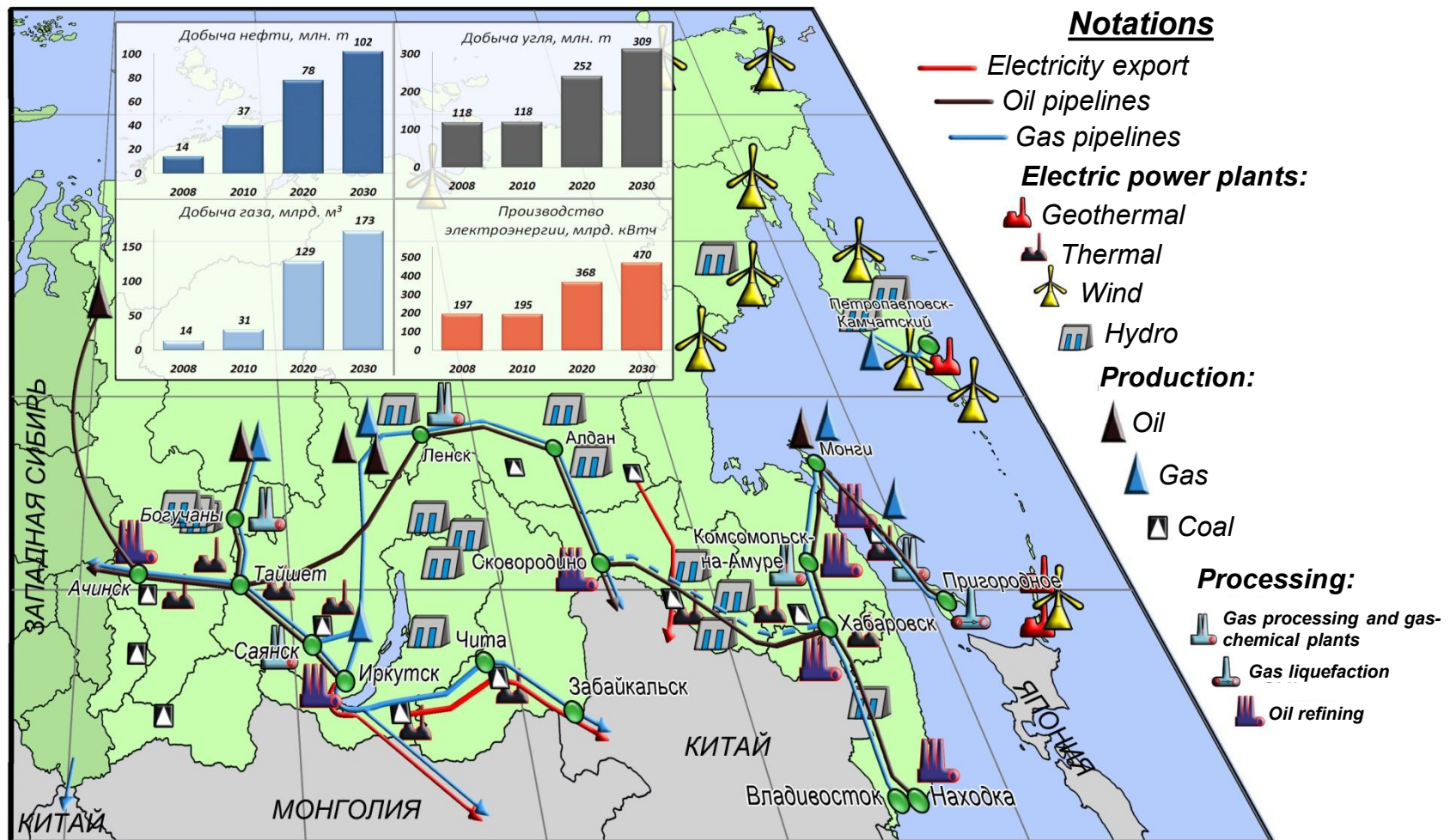
# POSSIBLE EXPORT OF ENERGY RESOURCES FROM RUSSIA TO NEA COUNTRIES



Source: Subsantiating materials to Energy Strategy of Russia until 2030



# ENERGY IN EAST SIBERIA AND THE FAR EAST: CURRENT STATE AND PROSPECTS (Strategic scenario of development)





## ***4.2. Conclusions***



## I.

**Prospective energy development in East Siberia and the Far East until 2030 requires huge investments. The estimated cost of the strategy is \$200-250 billion, \$80-85 billion should be invested in the development of oil and gas production and the construction of main oil and gas pipelines (only for new energy enterprises).**

**This strategy of energy development in East Siberia and the Far East will probably not be realized without attraction of foreign investments. This is another specific feature of Russia as a player in the energy markets of NEA countries.**



## II.

# FIVE REQUIREMENTS FOR MUTUALLY BENEFICIAL ENERGY COOPERATION

- 1. Political will and serious intentions of participants to implement a specific energy project mutually beneficial for each country.*
- 2. Coordination of economic and energy policy among the central, regional authorities and business of the countries in development of inter-country energy projects.*
- 3. Comprehensive and system estimation of consequences (effects) of implementation of large-scale interstate energy projects, particularly under high uncertainty of future development, economic risks and global challenges for the countries, regions and energy companies.*
- 4. Generation of mutually acceptable mechanisms (organizational, economic, legal and others) for implementation of interstate energy projects*
- 5. Development and implementation of the interstate projects by international teams (at all the stages: from feasibility study and design works to their realization).*



### **III. THE NECESSITY TO ELABORATE AN INTEGRATED SCIENTIFICALLY GROUNDED STRATEGY OF ENERGY DEVELOPMENT IN THE NORTHEAST ASIAN COUNTRIES TAKING INTO ACCOUNT IMPORT OF RUSSIAN ENERGY RESOURCES HAS BECOME URGENT**

- **Currently the main outlines of the energy cooperation in NEA are clear enough. The resource base of the countries supplying energy resources and the energy markets of consuming countries have been properly studied. Special attention should be paid to the implementation mechanisms of coordinated actions of participants (countries, regions, companies) in terms of economic, legislative and other initiatives aimed at implementing the large-scale interstate energy projects.**

- **Energy companies and their research Institutions in Russia and in the NEA countries should stimulate the work in this direction in order to make an appropriate contribution to solving the problem significant for all the countries in the regions.**



**Thank you very much for  
your kind attention!**