



GOVERNMENT OF PRIMORSKY KRAI

POWER POLICY OF DEVELOPMENT OF COAL, GAS AND OIL INDUSTRY OF PRIMORSKY KRAI

Kovalev Sergey
ACTING DIRECTOR
DEPARTMENT OF THE INDUSTRY

2016

NORMATIVE LEGAL ACTS

- ❑ The program of creation in Eastern Siberia and in the Far East of single system of production, gas transportation and gas supply taking into account possible gas export on the markets of China and other Asia-Pacific countries (the order of the Ministry of Energy of the Russian Federation of 03.09.2007 No. 340);
- ❑ The concept of long-term social and economic development of the Russian Federation for the period till 2020 (the order of the Government of the Russian Federation of 17.11.2008 No. 1662-r);
- ❑ The energy strategy of development of Russia for the period till 2030 (the order of the Government of the Russian Federation of 13.11.2009 No. 1715-r);
- ❑ The strategy of social and economic development of the Far East and the Baikal region till 2025 (the order of the Government of the Russian Federation of 28.12.2009 No. 2094-r);
- ❑ The general scheme of placement of power generation facilities till 2020 (the order of the Government of the Russian Federation of 22.02.2008 No. 215-r);
- ❑ The general scheme of development of gas industry of the Russian Federation for the period till 2030 (the order of the Ministry of Energy of the Russian Federation of 06.06.2011 No. 213);
- ❑ The development plan gaz- and petro-chemistry of Russia for the period till 2030 (the order of the Ministry of Energy of the Russian Federation of 01.03.2012 No. 79);
- ❑ The program of development of the coal industry of Russia for the period till 2030 (the order of the Government of the Russian Federation of 21.06.2014 No. 1099-r);
- ❑ The state program of the Russian Federation "Energy efficiency and development of power (the resolution of the Government of the Russian Federation of 15.04.2014 No. 321).

PURPOSES AND TASKS

PURPOSE:

- ✓ Creation of the innovative and effective energy sector of the country
- ✓ Diversification of commodity structure of export of energy carriers:
 - oil products,
 - petrochemistry products,
 - gas chemistry products,
 - liquefied natural gas,
 - gas motor fuel,
 - coal.

TASKS:

- ✓ Creation of the steady institutional environment
- ✓ Upgrade and creation of new energy infrastructure
- ✓ Increase in energy and ecological efficiency of the Russian economy and power
- ✓ Increase in efficiency of production and conversion of fuel and energy resources
- ✓ Integration of Russia into a world power system

DEVELOPMENT OF ENERGO-TRANSPORTNOY OF INFRASTRUCTURE "OIL"

"EASTERN SIBERIA-PACIFIC OCEAN"



- Entering of ESPO-1 in operation in December, 2009 allowed to realize strategic plans of the government of Russia on development of fuel and energy complex of the country – to diversify supply of the Russian oil to export.
- Beginning of ESPO-2 (the site of Skovorodino – Kozmino) in December, 2012 removed a pipeline system on new level – allowed to refuse raw materials transportation by rail, to guarantee reliability and certainty of supply, and also to increase their amounts as abroad, and by the Russian oil refineries.
- The trunk ESPO oil pipeline has no analogs in a pattern on the expansion.
- The distance from starting point (the head oil pumping station No. 1 Taishet) to finite (collection point for oil – the port of Kozmino) makes 4756 km. Thus, the pipeline of ESPO broke the record of the Guinness Book of Records – there as the most extensive appears the North American oil pipeline "Edmonton-Chicago-Monreal" only 3787,2 km long.

- By 2020 capacity of ESPO-2 will reach 50 million tons per year.
- ESPO-2 by right is considered one of the largest Russian projects of the beginning of the 21st century. Its implementation promoted creation of multiplicative economic effect in the territory of several subjects of the Russian Federation: it and serious tax contributions to regional budgets, both development of infrastructure of the remote areas, and creation of new workplaces.

TRANSNEFT – PORT of KOZMINO



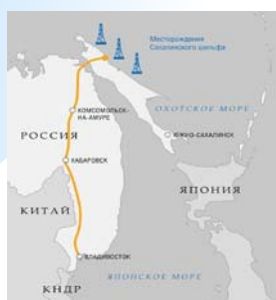
- ❑ Capacity of port at the first stage of project implementation of ESPO made 15 million tons of oil a year. After commissioning of the second queue increase in amount of the shipped oil up to 30 million tons became possible.
- ❑ Today loading of oil on oilers is made at two moorings: No. 1 tankers with a deadweight of 80-150 thousand tons; No. 2 - vessels with a deadweight of 80-120 thousand tons.
- ❑ Works on reconstruction of an approach dam and dredging of the water area of the mooring No. 2 are conducted that will allow to accept tankers with a deadweight up to 150 thousand tons.
- ❑ The construction of new reservoirs for oil storage is conducted.



- ❑ From the moment of commissioning at the end of 2009 to the middle of 2016 through LLC Transneft — the Port of Kozmino 139,035 million tons of oil are exported.
- ❑ List of the countries: China, South Korea, Japan, USA, Singapore, Thailand, Taiwan, Indonesia, Philippines, India, Peru, Malaysia, New Zealand, Australia, Vietnam.

DEVELOPMENT OF ENERGO-TRANSPORTNOY OF INFRASTRUCTURE "NATURAL GAS"

"Sakhalin-Khabarovsk-Vladivostok"



- ❑ Creation of new productions in the field of gas processing and gas chemistry, gasification of the entities and settlements of Primorsky Krai. Providing economy with natural gas. A possibility of gas transportation on the markets of Asia-Pacific countries.
- ❑ Extent of the first start-up complex of a trunk gas pipeline constituted 1350 km, performance — 6 billion cubic meters of gas a year. Further, the system will be able to provide transportation about 30 billion cubic meters. Sakhalin gas.

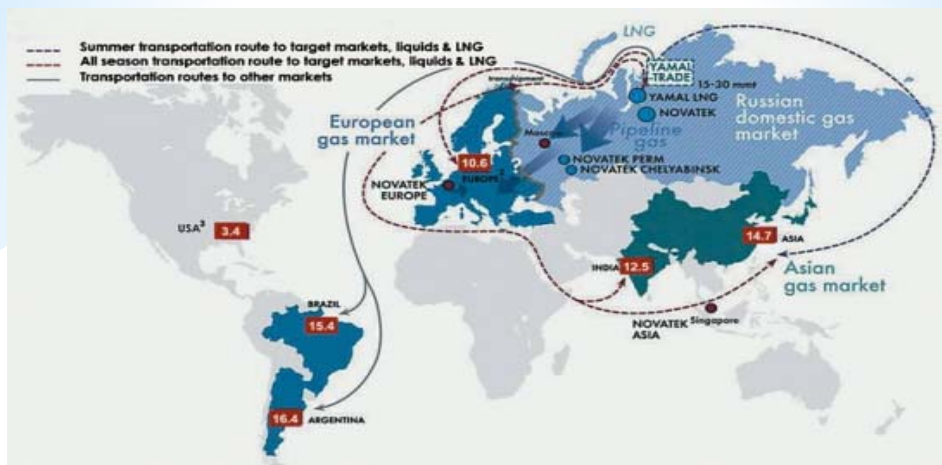
"Power of Siberia"



- ❑ Trunk gas pipeline "Power of Siberia" will transport gas Yakut (the Chayadinsky field - 1,4 trillion cubic meters of gas) and Irkutsk (The Kovykta field - 2,5 trillion cubic meters of gas) the centers of gas production to the Russian consumers in the Far East and for export to China.
- ❑ In the long term he will unite to a gas-transport system of "Sakhalin-Khabarovsk-Vladivostok".
- ❑ Export performance — 38 billion cubic meters a year.
- ❑ On September 4, 2016 to Hangzhou (China) the EPC construction contract of underwater transition of the cross-border section of the pipeline near Amur River is signed.

PERSPECTIVE DEVELOPMENT OF POWER TRANSPORT INFRASTRUCTURE

“Yamal LNG”



- ❑ The proved and probable field reserves (PRMS) are estimated at 926 billion cubic meters of gas and 30 million tons of liquid hydrocarbons.
- ❑ Project production level makes about 27 billion cubic meters of gas a year for at least 20 years.
- ❑ The LNG plant capacity of 16,5 million tons per year is under construction on the South Tambey gas field on the bank of Gulf of Ob.
- ❑ For the project of Yamal LNG are designed and the special tankers of the strengthened ice class "ARC 7" allowing to perform year-round navigation without icebreaking posting in the western direction and during the Arctic summer - in east direction across the Northern Sea Route are under construction.
- ❑ September 02, 2016. The Japanese bank of international cooperation (JBIC) signed the Memorandum with JSC Novatek of financing of the project on the amount about \$200 million.
- ❑ Considering an arrangement of Primorsky Krai in the Pacific Rim, the non-freezing ports located on the southern part of Primorsky Krai and also availability of tax benefits for residents of TOSER and SPV, creation of a complex on storage and transportations of LNG to Asia-Pacific countries is possible.

Investment project “SPG-VLADIVOSTOK”



Project purpose:	Export of LNG by sea to any country of the World
Capacity:	5-15 billion cubic meters of gas per year
Location:	Bezverhovo, Khasan municipal district
Investor:	OJSC “Gazprom”
Cost:	about 685 billion Rbl.
Time:	2013-2024

Condition of preparation of the project documentation

- ❑ Complex engineering researches are executed in full
- ❑ Documentation of FEED is developed in full
- ❑ Special specifications on the main production of LNG, on the shipment terminal, the cargo mooring and port infrastructure are developed and approved
- ❑ The project documentation is developed in full
- ❑ The decision of commission of experts of the State Environmental Assessment according to the project documentation "The LNG plant around Vladivostok" the Stage-2 "Objects of the Sea Port Terminal and the Accompanying Engineering Infrastructure" is received
- ❑ The positive decision of "the Main State Examination of Russia" according to the project documentation "The LNG plant around Vladivostok" the Stage-1 "Objects of a Pioneer Exit" is received
- ❑ The positive decision of "the Main State Examination of Russia" according to the project documentation "The LNG plant around Vladivostok" Stage-2 "Objects of the Sea Port Terminal and the Accompanying Engineering Infrastructure" and the stage-3 "Objects of the LNG Plant" is received

NAKHODKA CHEMICAL FERTILIZERS PLANT



- ❑ Creation in the Far East the world's largest high-technology and environmentally friendly complex on production of mineral fertilizers and chemical products. Conversion of natural gas will allow to go to mineral fertilizers from a raw orientation of economy.
- ❑ Capacities of the first and second queues of the plant on production of mineral fertilizers in the territory of Primorsky Krai will make 2,1 million tons of ammonia, 2 million tons of a carbamide (urea) and 1 million tons of methanol a year.
- ❑ On September 2, 2016 "The national chemical group" and "Fund of development of the Far East and Baikal region" signed the memorandum of investments into a complex construction on production of mineral fertilizers in the amount of 5 billion rubles.
- ❑ 2017 - the beginning of a construction of the plant
- ❑ 2019 - the beginning of consumption of natural gas

Project purpose:	To increase gross regional product of Primorsky region by production of gas chemical products for domestic and international supply
Capacity:	About 8 billion cubic meters of gas per year
Location:	Nahodka municipal district
Investor:	CJSC "National Chemical Group"
Cost:	about 436 billion Rbl.
Time:	2013-2021

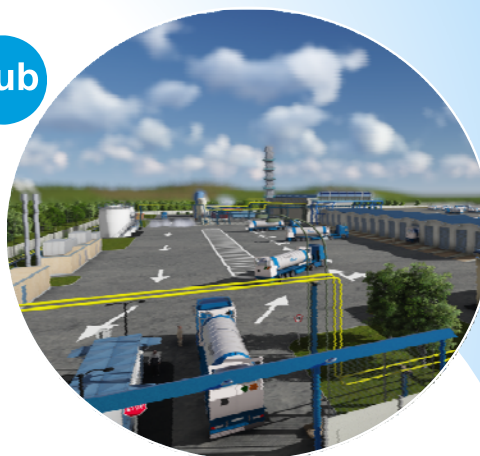
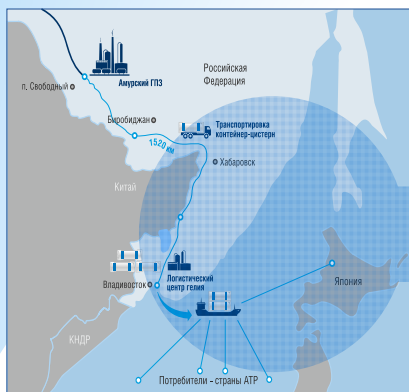
THE LIQUEFIED HYDROCARBONIC GAS



- ❑ JSC "Primorsky gaz" is the main gas supplying and gas-selling organization in the territory of Primorsky Krai.
- ❑ Society is entered in the register of regional monopolists, and borrows:
 - ❑ 95% of the market of gas supply in general
 - ❑ 100% of the market of housing and communal services in the sphere of gas supply of the population
 - ❑ 100% of the market of seasonings with gas motor fuel of a road transport



CENTER of PROCESSING of GELY - LLC “Gazenergoset helium”



Purposes of the Logistic center:

- ✓ providing continuity and reliability of export supply of liquid helium of the Amur GPP;
- ✓ increase in range of delivery of liquid helium to consumers;
- ✓ requirements satisfaction of the domestic market in liquid and gaseous helium.

"The logistic center of helium" is an integral part of the Amur Gas Processing Plant project regarding providing continuous and reliable transport logistics of an export channel of sale of commodity helium to export ports.

Investment project "EAST PETROCHEMICAL COMPANY" (VNHK)



Project purpose:	Production and sales of oil chemical products to domestic market and market of Asia Pacific region countries.
Location:	Prartizanskiy municipal district
Capacity:	10-30 mln. ton per year
Construction terms:	1-st stage – 2014-2020; 2-nd stage – 2014-2022 Full capacity – 2013-2028
Investor:	OJSC “Rosbeft”
Cost:	about 660 billion Rbl.

- In execution of the order of the President of Russia V. V. Putin (No. Pr-1165 of 20.06.2013) "About liquidation of deficit of oil products in the Far Eastern Federal District" JSC “The Rosneft” conducts work on project implementation on a construction of the oil processing and petrochemical productions directed to release of motor fuels of quality is not lower “Evro-5” and petrochemical products with a high value added; to creation of new workplaces.
- The 4th quarter 2016 – completion of project works and transfer of documentation in the Main State Examination.
- Work on attraction in the project of strategic partners is conducted. The most probable at the moment the partner is ChemChina.
- Rendering the state support to the project of measures by the Government of the Russian Federation is performed within the order of 17.12.2015 No. 2602-r which approved the Actions plan on project implementation.
- The administration of Primorsky Krai prepared the request in the Ministry of development of the Far East of Russia of creation of the territory of the advancing social and economic development "Petrochemical". VNHK will become the main investor

COAL MINING INDUSTRY



JSC “SUEK” - one of the leading coal-mining companies of the world and the largest producer of coal in Russia.



- ❑ “SUEK” is among world leaders on inventory quantities, production and export of coal
- ❑ “SUEK” is the leader in coal production in Russia, to supply rate on the domestic market and export.
- ❑ “SUEK” provides more than 30% of need of the Russian coal power for fuel

Qualitative characteristics of coal JSC “Primorskugol”

Показатели качества топлива		Единица измерения	2010 (2010)	2011 (2011)	2012 (2012)
Прокля		млн	20-200	0-50	0-200
Влага воздуха (г/г), рабочая температура	средний	%	43,5	43,5	43,5
	предельный	%	40	40	40
Влажность (г/г), по среднему	средний	%	20,7	22	20,5
	предельный	%	20,0	20	20,0
Сухой остаток (г/г), по среднему	средний	%	0,4	0,4	0,4
	предельный	%	0,5	0,5	0,5
Низшая теплота сгорания (ккал)	средний	ккал/кг	2000	2000	2000
	предельный	ккал/кг	2200	2200	2200
Высота, ширина воздуха (г/г)	средний	%	0,0	0,0	0,0
	предельный	%	0,0	0,0	0,0

- ❑ JSC “Primorskugol” is a part of the JSC SUEK company.
- ❑ JSC “Primorskugol” is ready to take active part in a cooperation and to discuss questions of expansion of the market of the coals with potential investors:
 - for export,
 - on production of products of pyrolysis,
 - on production of coal briquettes and other products.

THANK YOU FOR ATTENTION!