

## 第4回日露エネルギー・環境対話イン新潟

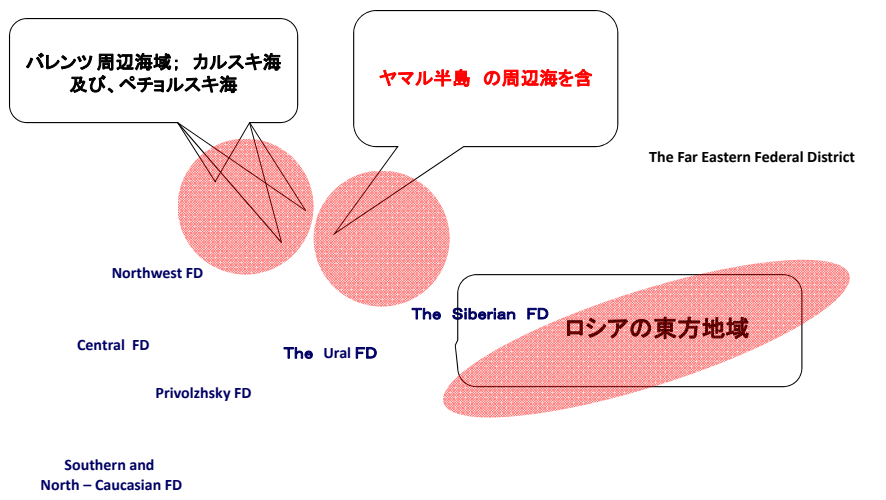
### 天然ガス分野における日露協力の展望

ガスプロム、副社長相談役  
Alexey Mastepanov

2011年11月15日



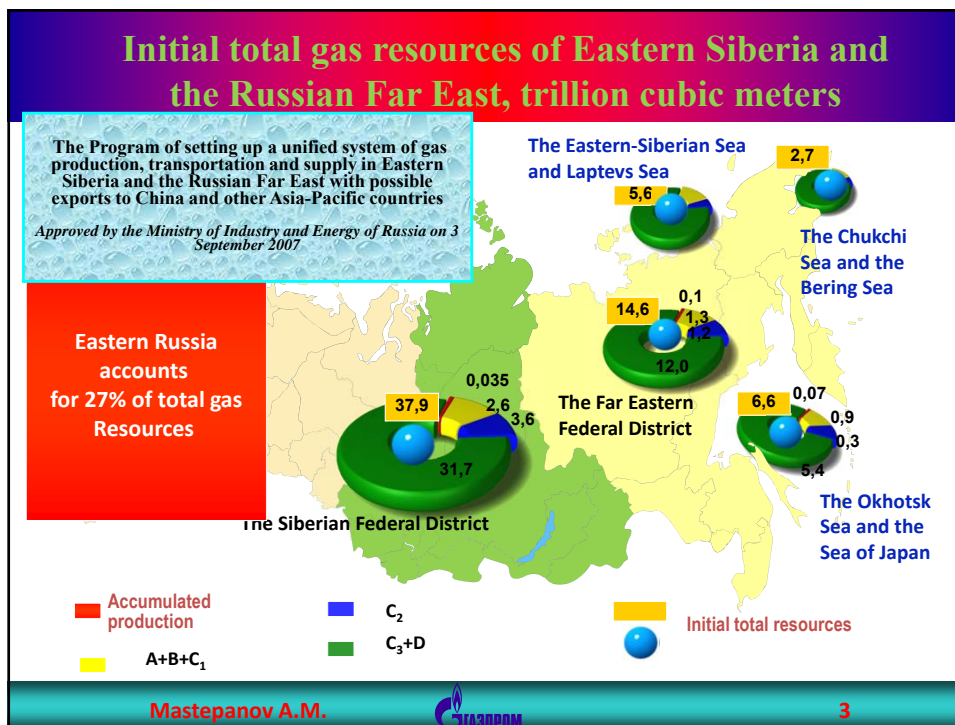
## ロシア21世紀のガス生産地域



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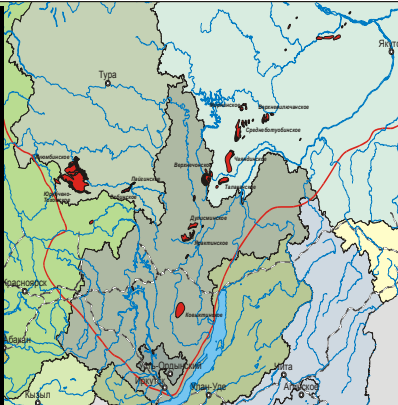


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### Natural gas structure of East Siberia and Yakutia gas fields


Name of Gas Fields	Principal components , %				
	Methane	Nitrogen	Helium	Ethane	C3-C6
Srednebotuobinskoe	88,61	2,93	0,45	4,95	3,12
Chayandinskoe	85,48	6,44	0,58	4,57	2,58
Urubcheno-Tohomsкое	81,11	6,32	0,18	7,31	5,06
Sobinsko-Paiginskoe	67,73	26,29	0,58	3,43	1,55
Koviktinskoe	91,39	1,52	0,28	4,91	1,78





The Russian state, as owner of the subsoil, is interested in the full extraction of these valuable components in their processing into products with high added value


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### The Eastern Gas Program: the recommended development option – gas processing and chemical industry

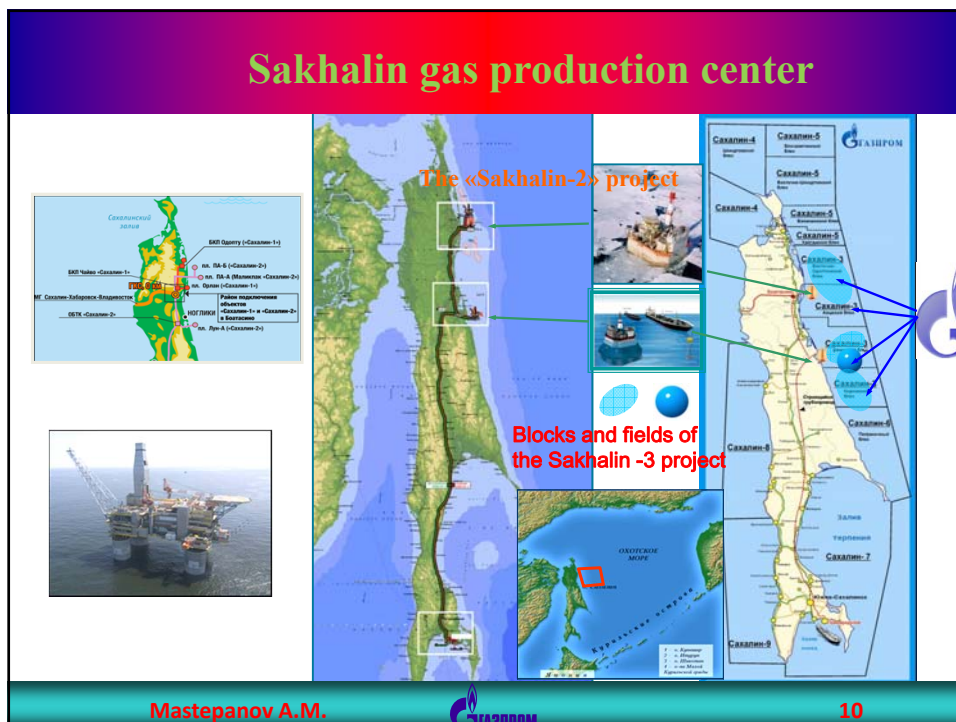
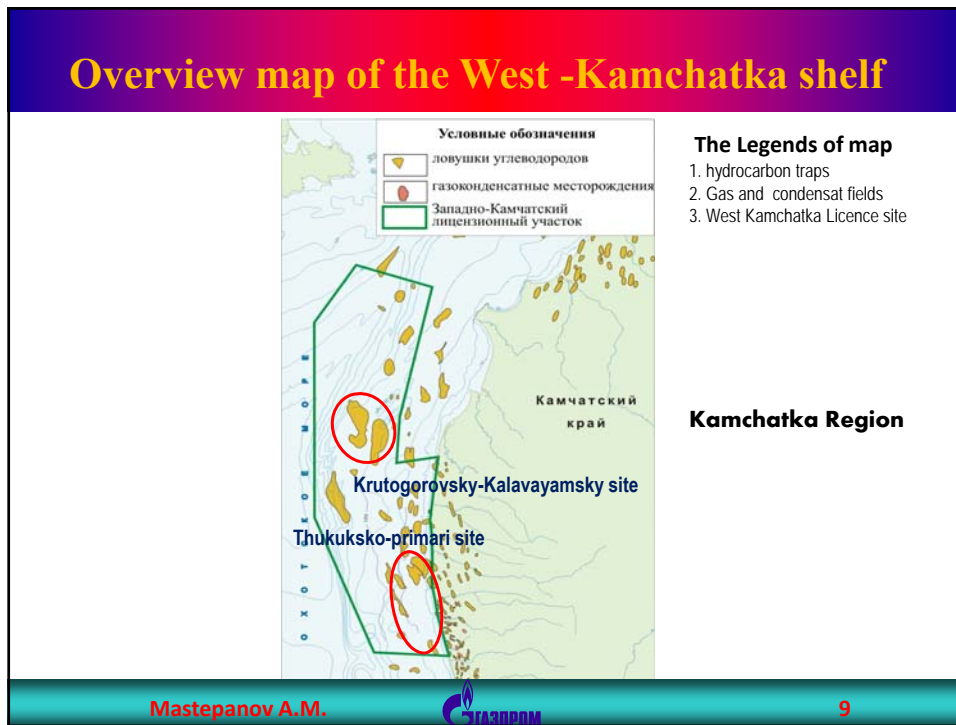


**The results of the Program's realization (by the year 2030):**  
 Production of petroleum products = 4.5 mln t/year;  
 Production of chemical products = 9.1 mln t/year

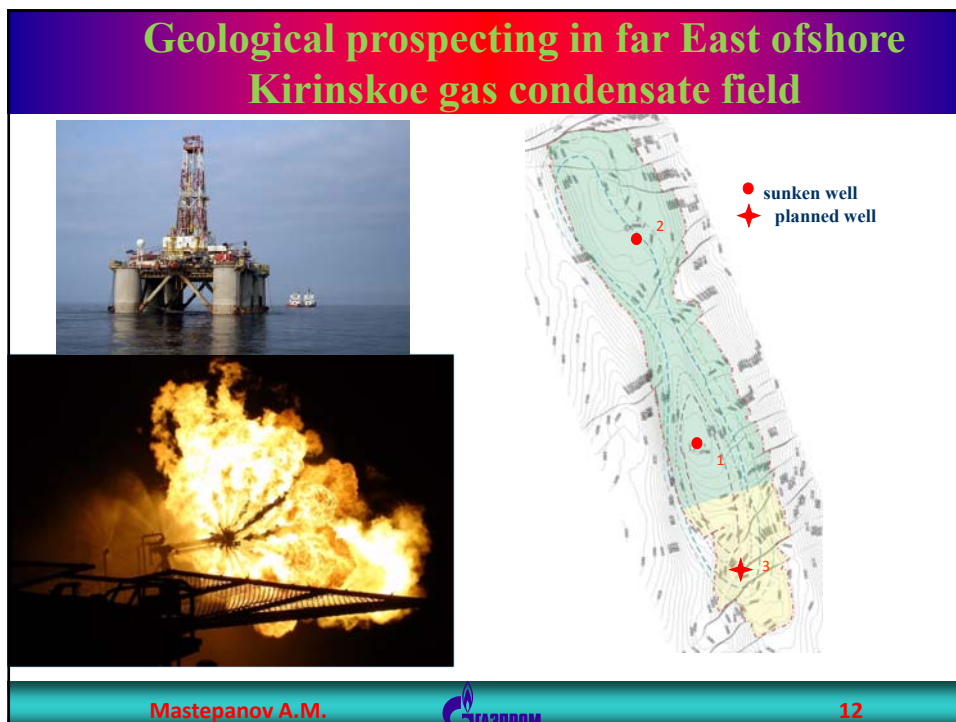
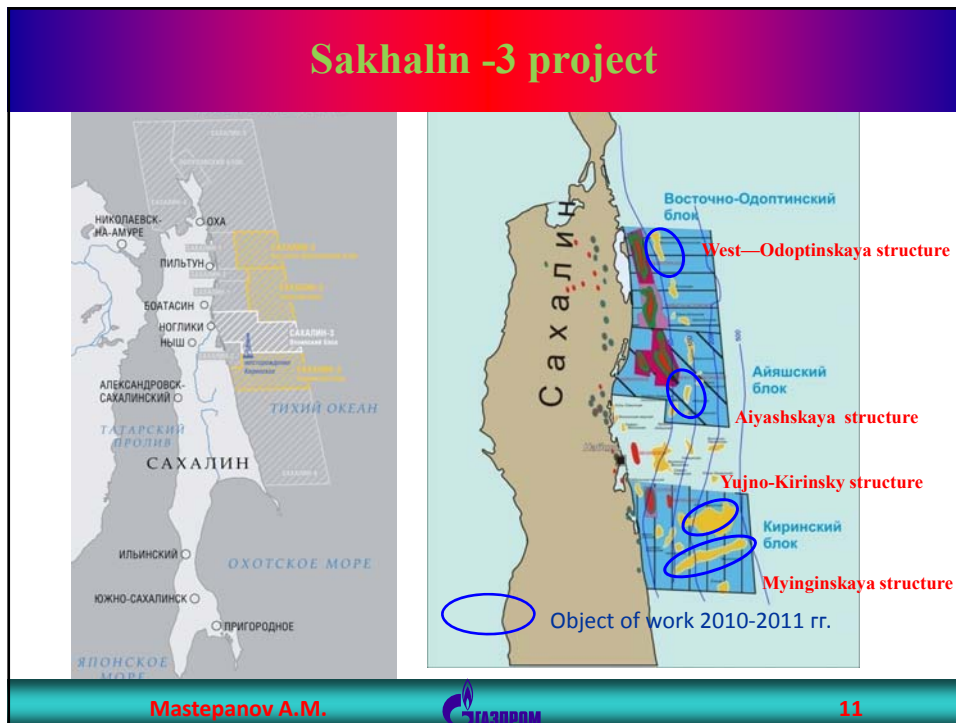
Условные обозначения:  
 - Центры газодобычи  
 - трубопроводный газ

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## Sakhalin - Khabarovsk - Vladivostok gas trunk pipeline

**Objects of 1<sup>st</sup> stage Complex**

Putting into operation of the 1st stage Complex - September 8, 2011

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## Construction of Sakhalin - Khabarovsk - Vladivostok gas trunk pipeline

Route of 1<sup>st</sup> stage Complex – 1296 км, including :

- Submerged crossing across strait of Otranto – 2 line diameter 1000 мм; route 23 км
- Gas pipeline removal to gas-distribution station Vladivostok – 116 км
- Diameter gas pipeline – 1220мм (in distribution - 1020/720мм)
- Pressure – 9,8 mega pascal (in distribution – 7,4 mega pascal )

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### Construction of the head of compressor station GTS "Sakhalin-Khabarovsk-Vladivostok"



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### Objects of the gas transportation system "Sakhalin-Khabarovsk-Vladivostok"

Gas Distribution station in Vladivostok



Vladivostok Thermal power station to feed her gas



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### Putting into operation of production facilities for Sakhalin gas supply to consumers



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### Creating a gas transportation system "Sakhalin-Khabarovsk-Vladivostok"

Welding the first joint - July 31, 2009




Putting into operation of the 1st stage  
Complex - September 8, 2011


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## Formation of the Yakutsk gas production center

Yakutsk gas production center:  
up to 25 bcm/year by 2020







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## Attraction to implement Eastern Gas Program partner JSC "Gazprom"

Involving partners of JSC "Gazprom" of the Pacific and Europe provide a parish in the region do not only additional financial and investment of resources, but the most advanced technologies and technical solutions



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## Cooperation of JSC "Gazprom" with Japanese partners

JSC "Gazprom" and consortium of Japanese companies (Japan Far East Gas Co.) implement a preliminary feasibility study on construction of LNG/CNG/ gas-chemical plant in Vladivostok area



Perevoznaya bay

## Cooperation on overcoming of consequences of earthquake and a tsunami

- JSC "Gazprom" has supplied addition volumes (325 000 ton) of LNG to Japan
- Alexey Miller said that, if necessary, Gazprom was ready to examine the possibility of additional LNG supplies to Japan.
- Vladivostok project is the most perspective LNG project for gas supply to Asia and Pacific countries including Japan



## Interaction with the Japanese companies – participants of project "Sakhalin-2"

Cooperation with Japanese companies in the project "Sakhalin-2" is regarded by us as an important stage in long-term cooperation with Japan

Regular meetings are held the first heads of Gazprom and Japanese companies - the shareholders of the operator of the project - the company "Sakhalin Energy"



17.10. 2011. Meeting between Alexey Miller, Chairman of the JSC «Gazprom» Management Committee and Masami IJIMA, President and Chief Executive Officer of Mitsui.



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## Other directions of cooperation

- Other directions of cooperation with the Japanese companies:
  - LNG production technology
  - gas-chemical production
  - extraction and utilization of helium
  - marine transportation of LNG and CNG
  - production of different mechanisms
  - researches in the field of extraction, production and transport of gas hydrates

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**About of realization the Eastern Gas Program**



Официальный сайт  
ОАО «Газпром»  
[WWW.GAZPROM.RU](http://WWW.GAZPROM.RU)

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**Prospects for cooperation between  
Russia and Japan in natural gas**

Advisor to the Deputy Chairman of OAO "Gazprom"  
A.M. Mastepanov

Thank you for your attention

Niigata - November 15, 2011

