



# RUSSIAN ENERGY STRATEGY AND THE BELT & ROAD INITIATIVE

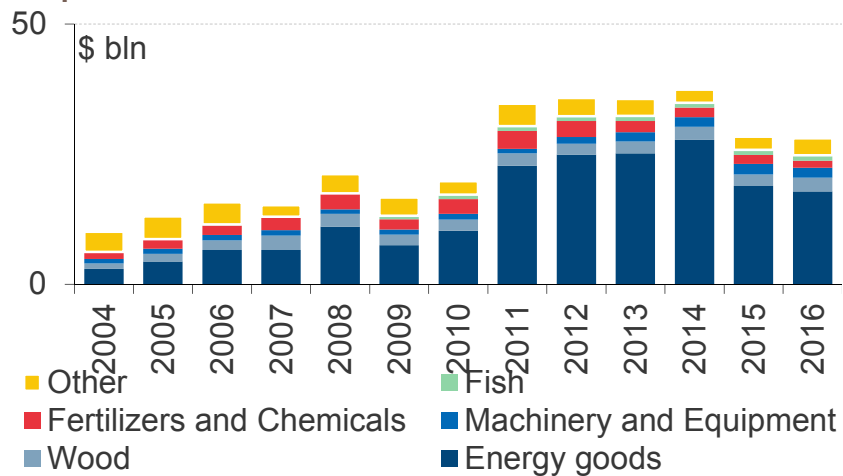
**Dr. Alexey GROMOV,**  
Principal Director on Energy Studies  
Institute for Energy and Finance,  
Moscow, Russia

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Beijing, 13<sup>th</sup> December 2017

# Energy Is a Key Driver of Russian-Chinese Economic Cooperation

Export from Russia to China



Source: UN Comtrade

- In 2016 energy goods (petroleum and petroleum products, coal and electricity) provide about 60% of total export from Russia to China
- More than 80% of the Chinese FDI in Russia flows to Russian Energy Sector

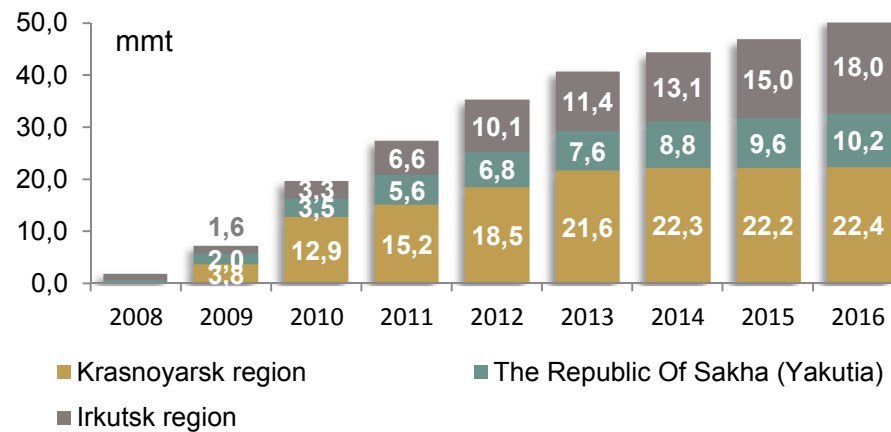
Major energy deals and loans between Russian and Chinese companies

Year	Agreement	USD*
2005	China National Petroleum company (CNPC) loan to Rosneft	6 bn
2006	CNPC (49%) and Rosneft establish Vostok Energy LTD	-
2006	Sinopec buys 49% of Rosneft's Udmurtneft	3.5 bn
2007	Sinopec buys 25% of Rosneft's Sakhalin-3 project	-
2009	China Development Bank loan to Rosneft and Transneft, enabling the Russia-China oil pipeline (ESPO spur)	25 bn
2013	CNPC-Rosneft 25-year oil supply deal, doubles oil exports	270 bn
2013	Sinopec-Rosneft 10-year supply deal	85 bn
2013	CNPC buys 20% of Novatek's Yamal LNG Project	5.4 bn
2014	CNPC-Gazprom gas deal "Power of Siberia" 38 bcm/y	400 bn
2015	China's Silk Road Fund buys 9.9% of Yamal LNG Project and provides USD 790 million loan for the project	1.2 bn
2016	Chinese banks provide 15-year loan to Yamal LNG Project	12 bn

\*Estimated at time of agreement (in billions), based on company sources, Vedomosti.ru and Platts.com.

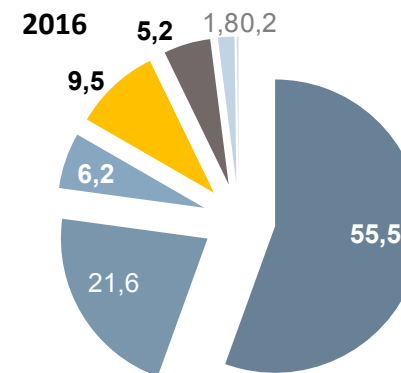
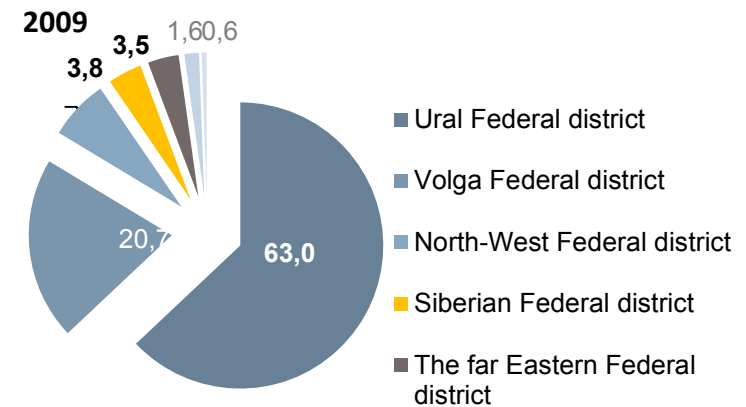
# Russian Energy Shift to the East

Crude oil production in the East Siberia, 2008-2016



Source: Minenergo RF

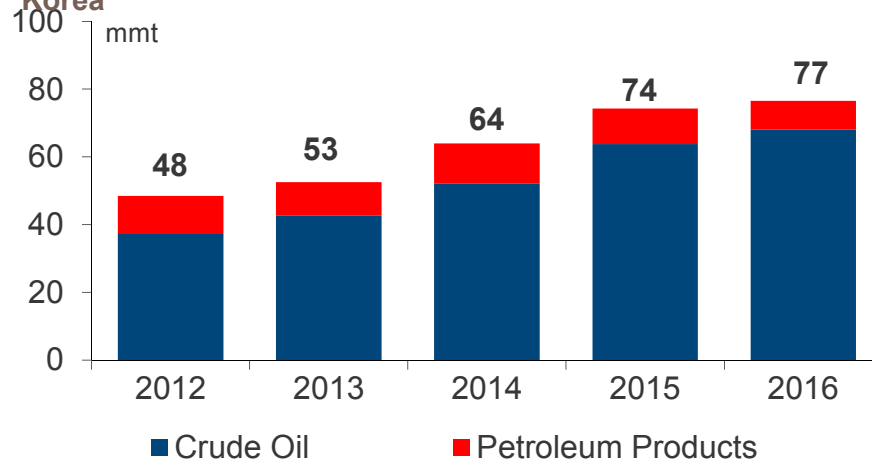
- The shift to the East is a key priority of the Russian energy policy since 2009
- The share of Russian eastern regions in the domestic crude oil production has raised from 7,3 to 14,7% during 2009-2016
- Total crude oil production in the Russian East has raised up to 50,6 mmt in 2016 or 6 times more than in 2009



## Russian Crude Oil Is Becoming Popular in Asia

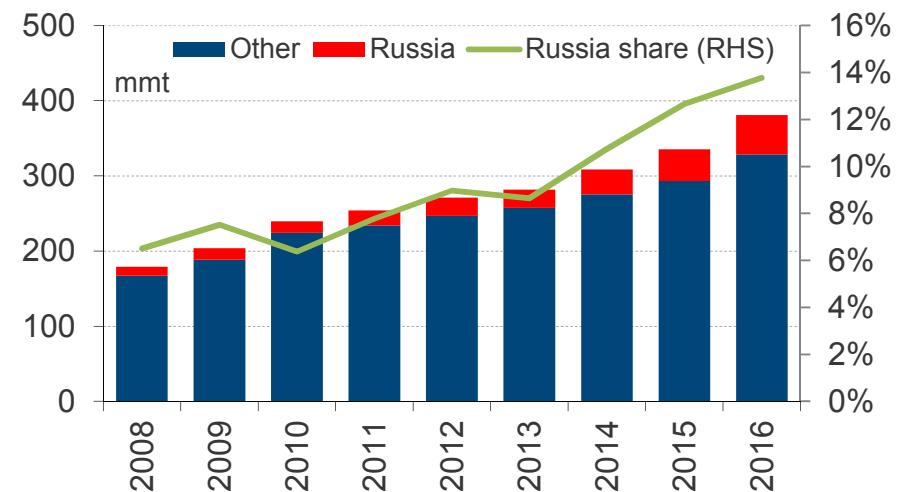
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Petroleum Export from Russia to China, Japan, India and South Korea



Source: UN Comtrade, Eurostat, National Statistical Agencies

Share of Russia in the China Crude Oil Import



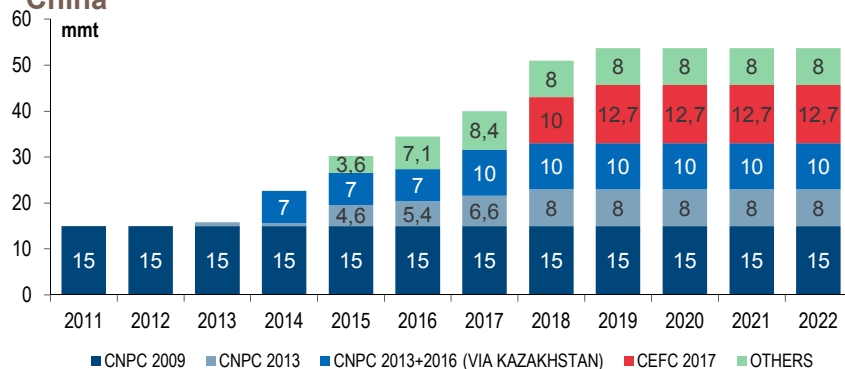
Source: General Administration of Customs of People's Republic of China

- Creation of an oil infrastructure in the East of Russia - the ESPO pipeline - and the long-term oil contracts increased oil export from Russia to Asia-Pacific countries
- Since 2016, Russia has become a leader in the structure of Chinese oil import providing more than 52 mmt (+24% y/y) of crude oil for China or 14% of its total oil import.

## Rosneft Is a Key Player on the Chinese Oil Market

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Rosneft's contracts obligations for crude oil deliveries in China



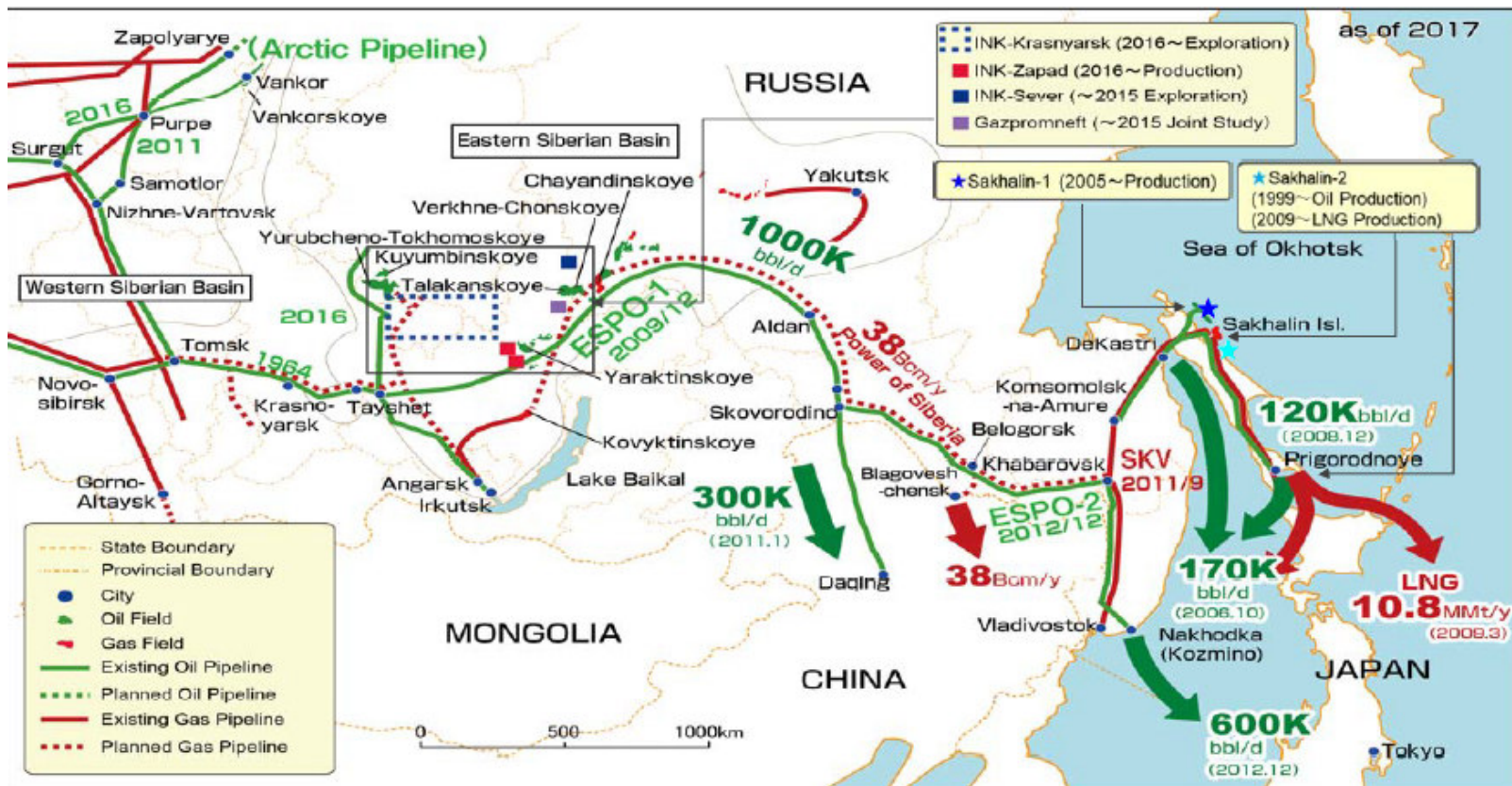
Source: Rosneft

- Rosneft provides more than 65% of Russian oil export to China (34,5 mmt in 2016)
- Since 2018 Rosneft's oil deliveries to China will be raised up to 50 mmt
- Cumulative contract's obligations by Rosneft is more than 700 mmt of crude oil
- CEFC to become the third largest shareholder in Rosneft after the deal on the sale of 14,16% stake in the Russian company

Key projects of Rosneft with chinese partners

Project	Partner	Description
<b>Udmurtneft (2006)</b>	Sinopec	Sinopec (2006) has a 47.6% of shares in the company oil production (around 6.5 mtpa)
<b>Venineft (2007)</b>	Sinopec	JV of Rosneft (74.9%) and Sinopec (25.1%). Gas reserves: 35,4 bcm, Oil reserves: 3,2 mmt Commissioning is expected in 2019
<b>Tianjin refinery (2013)</b>	CNPC	Capacity: 16.0 mtpa Commissioning is expected in 2020
<b>FEPCO (2016)</b>	Chem China	JV agreement with ChemChina (40%) in the Far East Petrochemical Co. (FEPCO) project
<b>Bolshoy Kamen (2016)</b>	Chem China	JV to build a plant and a polymer coatings y with an annual capacity of 50 thousand tons
<b>Boguchany (2016)</b>	Sinopec	JV to build a gas processing plant Capacity: 5 bcm & 3mt of polymers
<b>Verkhnechonsk field (2017)</b>	Beijing Gas	Beijing Gas has 20% in Verkhnechonskneftegaz Gas reserves: 6,9 bcm, Oil reserves: 82,2

# Russia Has Built and Continues to Build Infrastructure for Oil and Gas Supplies to Asia



## The main targets of the Russian Energy Strategy up to 2035\*

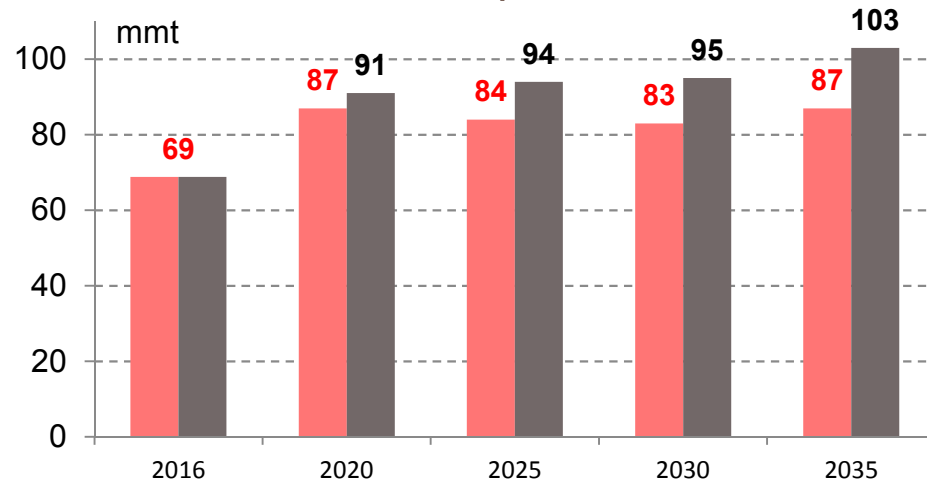
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- The formation of oil and gas complexes with the development of production, transport, and social infrastructure in Eastern Siberia and the Far East
- Energy exports will increase in the Asia-Pacific countries by 2-3 times by 2035
- Share of the Asia-Pacific countries in the structure of the Russian energy export will increase to 30–40% up to 2035
- Crude oil export will increase by 1.7 - 2.3 times to the Asia-Pacific countries up to 2035
- Natural gas export will increase by 5-9 times to the Asia-Pacific countries up to 2035
- Growth of LNG production, especially for Asia-Pacific, by 3-8 times up to 2035
- The creation of new coal production centers in the Republic of Sakha (Yakutia), the Republic of Tyva, the Trans-Baikal Territory and other regions of Siberia and the Far East, capable of providing 1.5 times more growth in coal exports

*\* the project is under consideration of the Government*

# Oil Production from East Siberia and Sakhalin Will Continuing to Grow

Crude oil production outlook in the East Siberia and Sakhalin up to 2035



■ Reference Scenario ■ Favorable Scenario

Source: FIEF

- In the Reference Scenario oil production from East Siberia and Far East is projected to rise from 69 MMt (1.41MMb/d) in 2016 to 87 MMt (1.76 MMb/d) in 2035.
- In the Favorable Scenario oil production from East Siberia and Far East is projected to rise from 69 MMt (1.41MMb/d) in 2016 to 103 MMt (2.10 MMb/d) in 2035

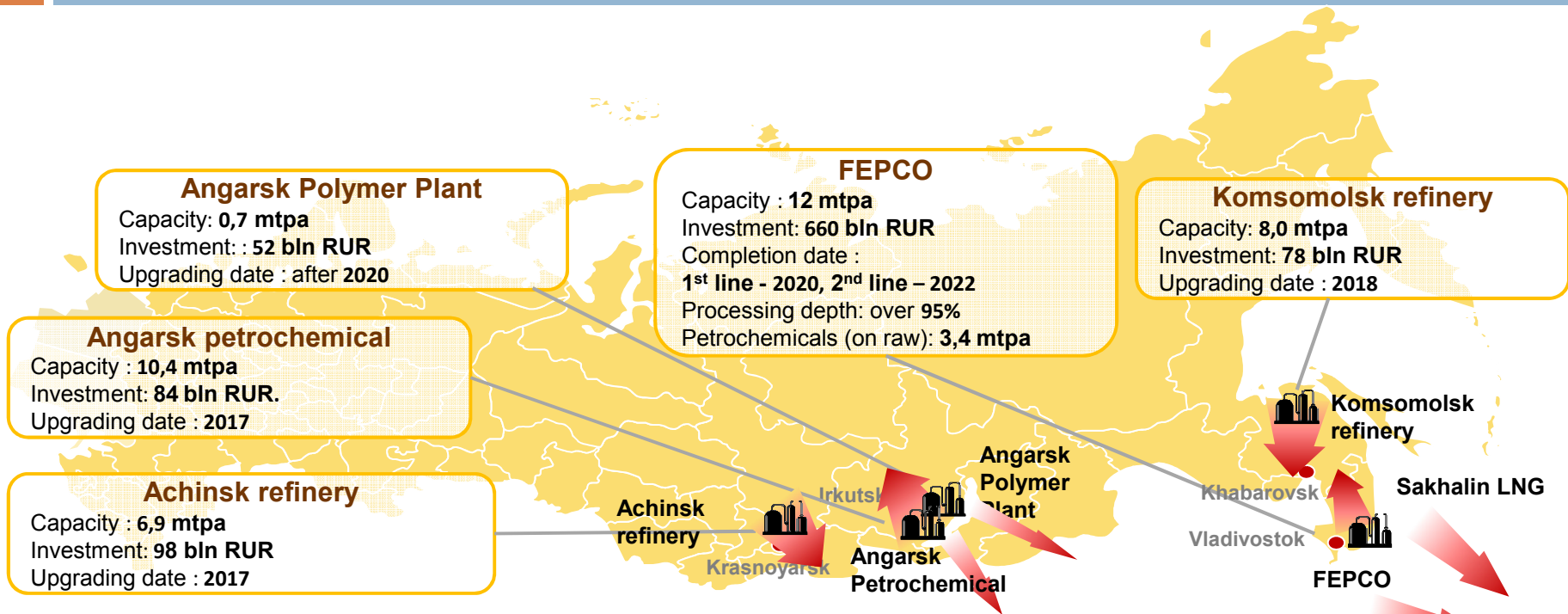
CAGR (Reference) – 1,23%

CAGR (Favorable) – 2,13%



## Russian Eastern Petrochemical Cluster

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- Petrochemical cluster develops, including in the framework of the Russian-Asian partnership
- The cluster will meet the growing demand for petrochemical products in Russia and in Asia-Pacific countries.

## New Gas Production Centers and Gas Pipelines Are Rapidly Evolving in the Eastern Russia

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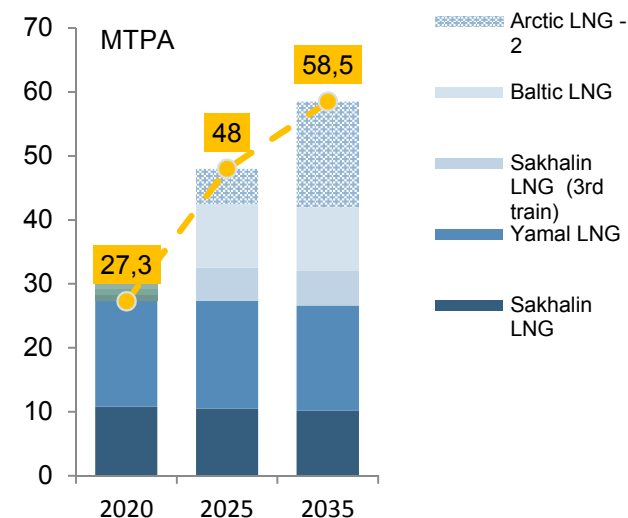


- The ABC1+C2 gas reserves within Gazprom's licensed areas in the Eastern Siberia and the Far East exceed 5 tcm
- Proposed projects by Gazprom could deliver more than 95 Bcm/y by pipeline to Asia, including 76 Bcm/y to China
- **But only Power of Siberia (38 Bcm/y) has the real prospective to be realized by the end 2019**

## Russian LNG Capacity Grows

Project	Participants	Project capacity, MTPA	Resource base	Commissioning	Challenges
Sakhalin LNG	Gazprom, Shell, Mitsui, Mitsubishi	10 (≥5×2)	Piltun-Astokhskoye, Lunskoye fields	2009	
Yamal LNG	NOVATEK,	16,5	South Tambey field	1 <sup>st</sup> phase - 2017	
	Total, CNPC, Silk Road Fund	(5,5×3)		2 <sup>st</sup> phase - 2018	
				3 <sup>st</sup> phase - 2019	
Sakhalin LNG (3 <sup>rd</sup> train)	Gazprom, Shell, Mitsui, Mitsubishi	5-5,5	Sakhalin-2		•competition with pipeline supplies for limited resource base
Baltic LNG	Gazprom (+Shell?)	10	Yamal region fields		•EU market orientation
Far East LNG	Rosneft, ExxonMobil, Sodeco, ONGC	5,0-10,0	Sakhalin-1		•it's possible to sell pipeline gas to Gazprom
Arctic LNG - 2	NOVATEK	16,5	Utrenneye and Geofizicheskoye fields		•access to technologies •unclear production cost
		(5,5×3)			

Russian LNG production outlook up to 2035 (Reference Scenario)



Source: FIEF

- The total volume of Russian LNG projects exceeds 79 Bcm/y
- Russian LNG projects have good economy profile and oriented to the Asia-Pacific market

# Silk Road and Eurasian Economic Union: Coordination Is Declared

The Belt & Road Initiative



Eurasian Economic Union



- May 2016, the leaders of Russia and China signed a joint declaration “on cooperation in coordinating the development of the Eurasian Economic Union (EEU) project and the (SREB)”
- Moscow and Beijing’s declared goal in combining the two projects was to build a “common economic space” in Eurasia, including a Free Trade Agreement between the EEU and China

## The Prospects for Energy Infrastructure Integration

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### The Northern Sea Route



### The Oil & Gas Integrated Infrastructure



### Asian Super Grid Project