

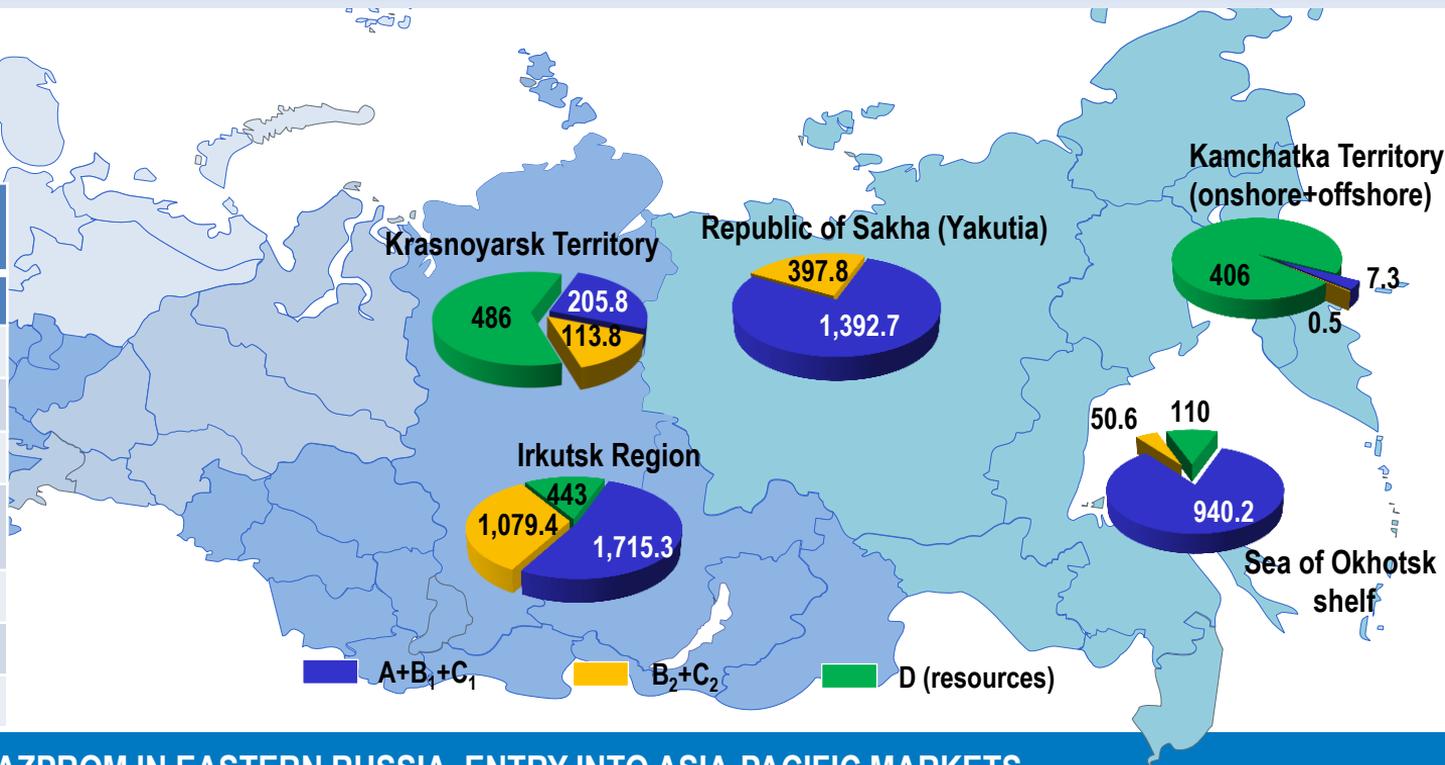
# GAZPROM IN EASTERN RUSSIA, ENTRY INTO ASIA-PACIFIC MARKETS

# Gazprom's Resource Base in Eastern Siberia and Russian Far East (as of January 1, 2019), bln m<sup>3</sup>

**Gas reserves** in Gazprom Group's licensed blocks in Eastern Siberia and Russian Far East:

**A+B<sub>1</sub>+C<sub>1</sub> – 4,260 bln m<sup>3</sup>; B<sub>2</sub>+C<sub>2</sub> – over 1,638.4 bln m<sup>3</sup>**

Gazprom's licenses in Eastern Siberia and Russian Far East	
Location	Number
Sea of Okhotsk shelf	4
Kamchatka Territory	9
Republic of Sakha (Yakutia)	5
Irkutsk Region	5 <i>(incl. for one UGS facility)</i>
Krasnoyarsk Territory	13
Amur Region	2 <i>(for UGS facilities)</i>
<b>TOTAL</b>	<b>38</b>



## CHAYANDINSKOYE OIL, GAS AND CONDENSATE FIELD

### RESERVES

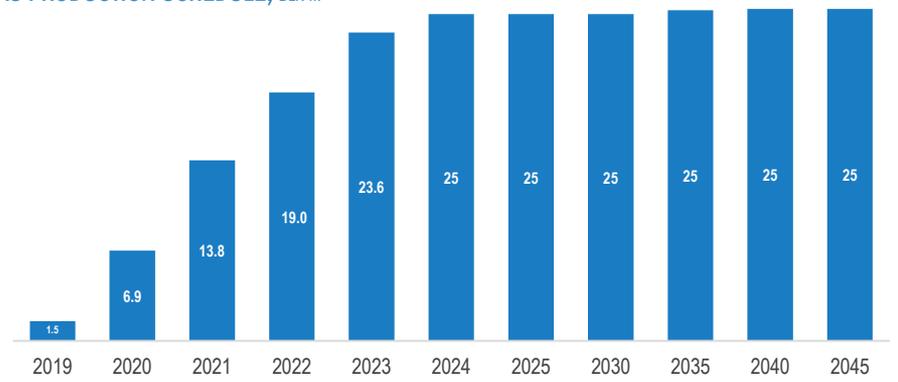
- 1,2 TRLN M<sup>3</sup> OF GAS
- 61.6 MLN T OF OIL AND CONDENSATE

### PLANNED GAS PRODUCTION

25.4 BLN M<sup>3</sup> PER YEAR

2019 COMMISSIONING DATE

GAS PRODUCTION SCHEDULE, BLN M<sup>3</sup>



## KOVYKTINSKOYE GAS AND CONDENSATE FIELD

### RESERVES

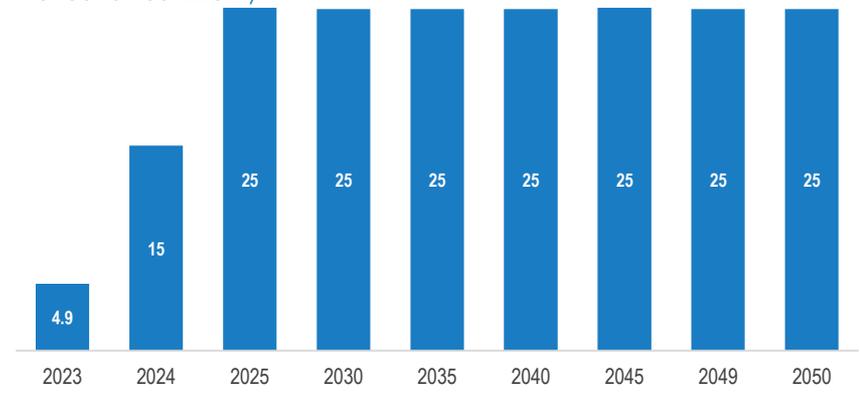
- 2.71 TRLN M<sup>3</sup> OF GAS
- 90.6 MLN T OF CONDENSATE

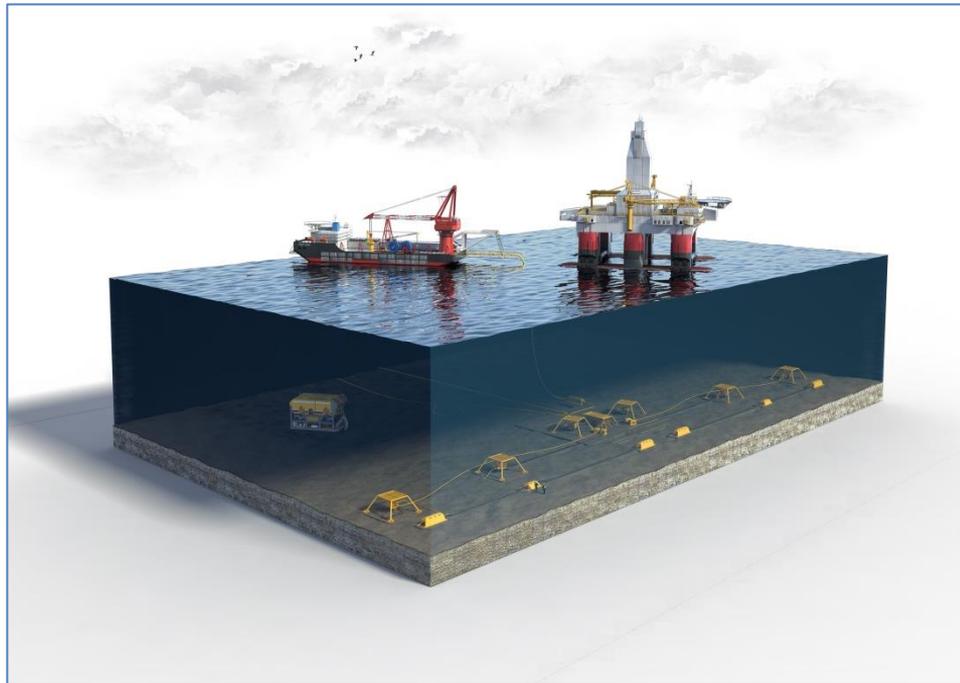
### PLANNED GAS PRODUCTION

25 BLN M<sup>3</sup> PER YEAR

DECEMBER 2022 COMMISSIONING DATE

GAS PRODUCTION SCHEDULE, BLN M<sup>3</sup>





Field was put onstream in **2014**

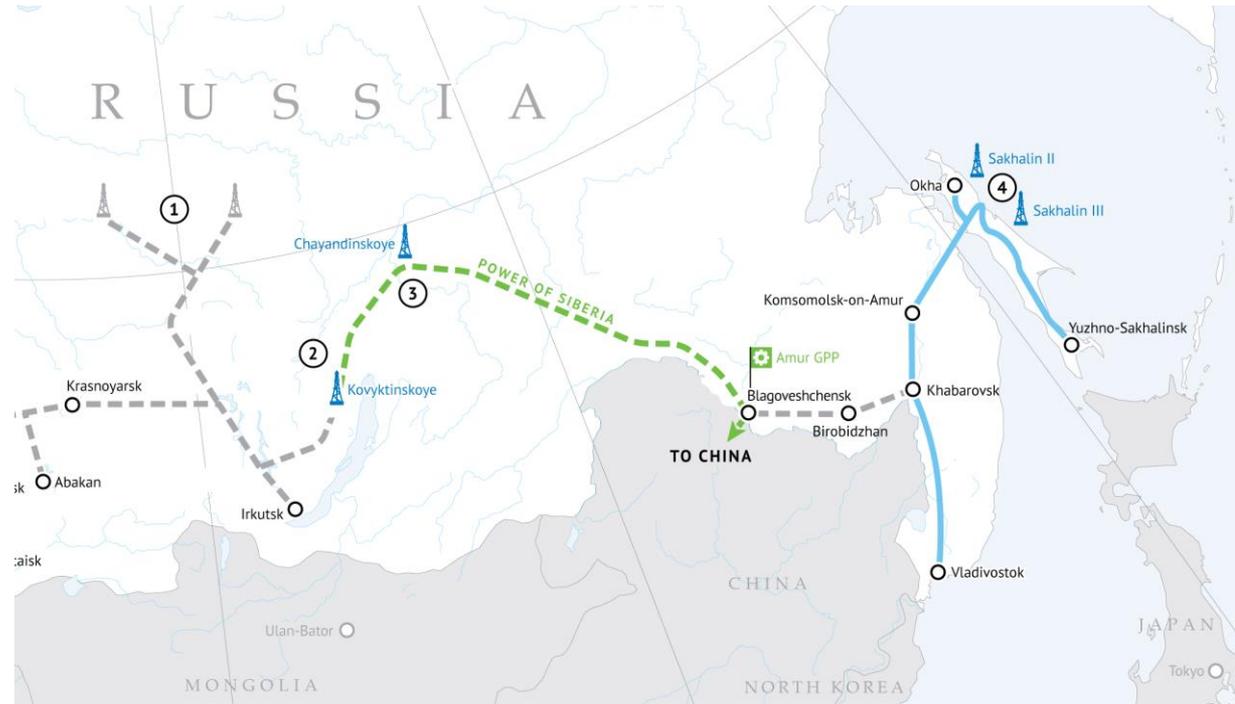
Planned gas production – **5.5** bln m<sup>3</sup> per year

Construction of **7** production wells completed:

- 2 wells connected to gathering system
- 5 wells to be connected

# Power of Siberia Gas Pipeline Chayandinskoye and Kovyktinskoye Fields

- LENGTH OF **POWER OF SIBERIA** GAS PIPELINE IS AROUND **3,000 KM**  
DIAMETER – **1,420 MM**  
PRESSURE – **9.8 MPA**
- ANNUAL EXPORT CAPACITY – **38 BLN M<sup>3</sup> OF GAS**
- **CHAYANDINSKOYE AND KOVYKTINSKOYE FIELDS** IDENTIFIED AS RESOURCE BASE FOR GAS SUPPLIES TO CHINA VIA **POWER OF SIBERIA** GAS PIPELINE
- CHAYANDINSKOYE FIELD IS OF PRIME IMPORTANCE FOR **YAKUTIA GAS PRODUCTION CENTER'S** DEVELOPMENT
- KOVYKTINSKOYE FIELD IS OF CENTRAL IMPORTANCE FOR **IRKUTSK GAS PRODUCTION CENTER'S** DEVELOPMENT



# Sakhalin – Khabarovsk – Vladivostok Gas Pipeline



Length of single-string pipeline – over 1,800 km  
Diameter – 1,200 mm  
Pressure – 9.8 MPa





## Propane and butane

- Planned LPG production at Amur GPP – up to 1.5 mln t per year
- Consideration is being given to possibilities for LPG processing within Russia, as well as to LPG exports to Asia-Pacific countries (Japan, China, South Korea)
- LPG will be transshipped at designated offshore and onshore terminals if LPG export option is chosen

## Liquefied helium

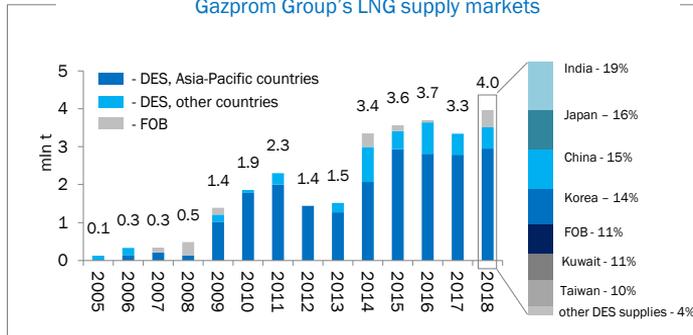
- Shipments in special helium tank containers
- Road transportation to logistics hub located near container ports
- Delivery of containers to buyers in ports
- Main sales markets: China, Japan, South Korea, Taiwan, and other countries
- Planned delivery volume – up to 60 mln m<sup>3</sup> per year

## ASIA-PACIFIC REGION REMAINS IN FOCUS FOR GAZPROM GROUP

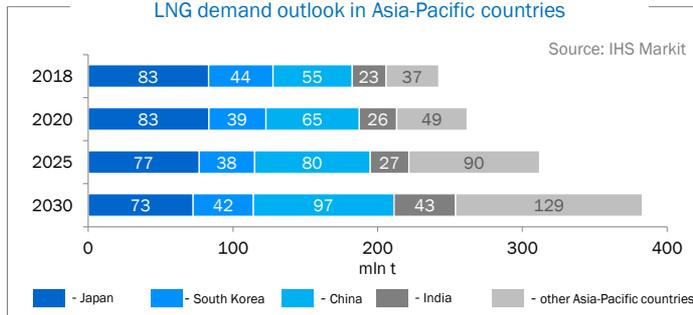
In 2018, **Asia-Pacific** markets accounted for **over 70%** of **Gazprom Group's LNG deliveries**.

We plan to further ramp up **LNG supplies** to Asia-Pacific markets both via our **LNG projects** carried out locally and from our **LNG trading portfolio**.

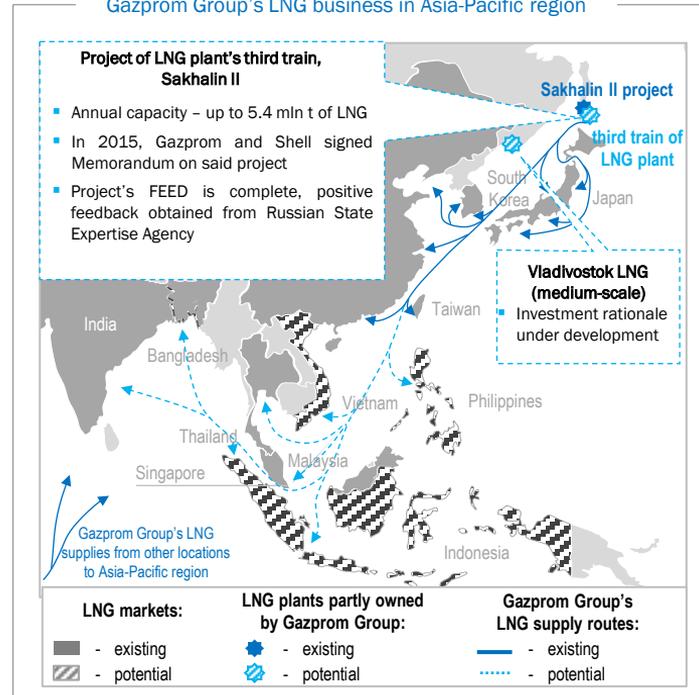
Gazprom Group's LNG supply markets



LNG demand outlook in Asia-Pacific countries



Gazprom Group's LNG business in Asia-Pacific region



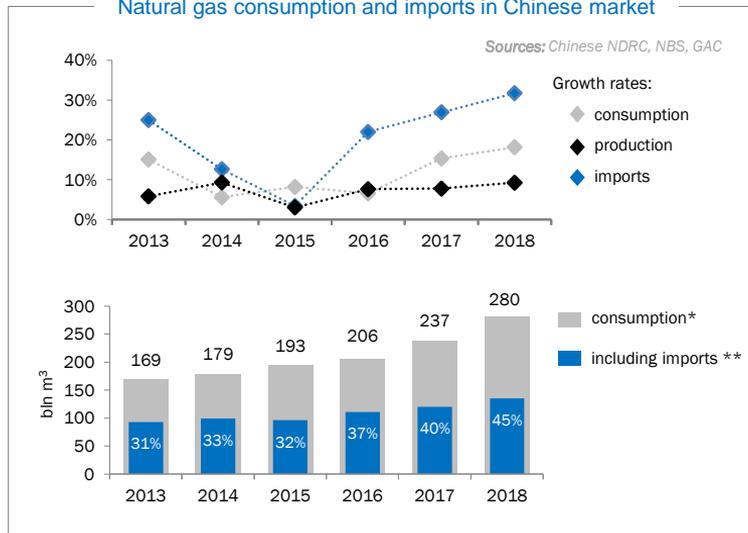
## Pipeline gas supplies from Russia to China via eastern route will commence on December 1, 2019.

We are getting ready to start pipeline gas deliveries to China under Sales and Purchase Agreement with CNPC for gas to be supplied via eastern route and also looking into other promising areas of cooperation with Chinese partners.

\* Difference of gas consumption and gas imports corresponds to volume of domestic production added to volume of natural gas in storage, volume of losses and statistical margin of error. Gas consumption data for 2018 are based on Chinese NDRC statistics concerning gas supplies to China's market (domestic production and imports).

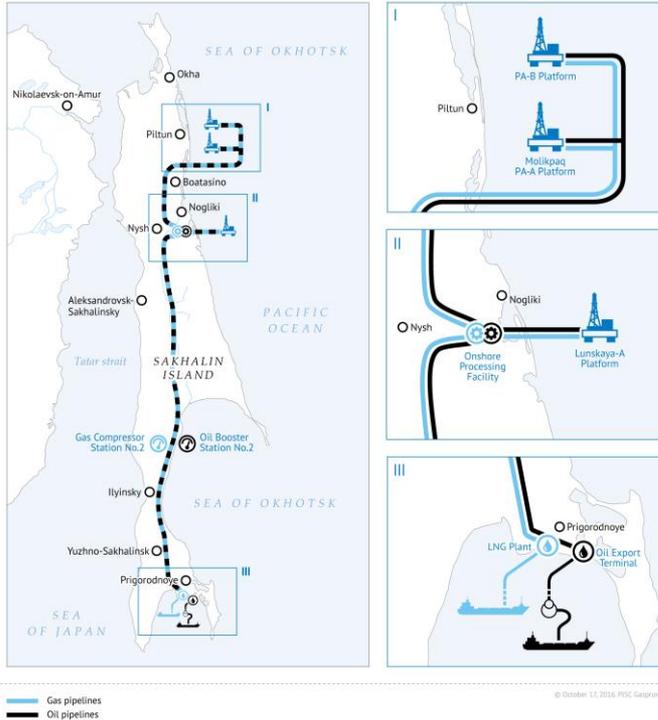
\*\* With reference to gas consumption-to-imports ratio.

Natural gas consumption and imports in Chinese market



### Current and potential areas of cooperation with Chinese partners

<p>PIPELINE GAS SUPPLIES</p>	<p>LNG SUPPLIES</p>	<p>GAS EXPLORATION AND PRODUCTION IN THIRD COUNTRIES</p>	<p>UNDERGROUND GAS STORAGE</p>	<p>GAS-FIRED POWER GENERATION</p>	<p>NGV FUEL AND SMALL-SCALE LNG</p>	<p>SCI-TECH COOPERATION</p>
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Sakhalin II project includes development of Piltun-Astokhskoye and Lunskeye oil, gas and condensate fields in Sea of Okhotsk under Production Sharing Agreement between Sakhalin Energy and Russian Government

2018 results:

- Gas production – **18.2 bln m<sup>3</sup>**
- LNG production – **11.4 mln t**
- Oil production – **5.6 mln t**

In April 2019, Sakhalin Energy celebrated its 25<sup>th</sup> anniversary.

Over years of its existence, SEIC has exhibited excellent operating performance:

- LNG production – over **100 mln t**
- Oil production – around **70 mln t**