

# **NOVATEK**

## **A Major New Player: Expanding Our Global LNG Footprint From 2018 to 2030**

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**Sberbank CIB - “Russia: The Inside Track” Conference**  
**Moscow**  
**22-23 May 2018**

# Why Invest to NOVATEK?

- World-class resource base – one of the largest globally
- Low-cost production – one of the lowest in the industry
- Close proximity to infrastructure – gas/liquids transportation & processing
- Experienced management team – excellent project delivery track record
- Exceptional financial results – among the highest returns on capital employed
- Strong FCF generation – self-funded investment program at any commodity price
- Capacity to grow shareholder returns – growth-oriented business model with balanced dividend policy
- Sustainable development principles – recognized by stakeholders
- Scalable LNG projects – create new market opportunities



**Creating  
Shareholder  
Value**

**Transforming into a Global Gas Company**

# Monetizing Our Resource Base (1Q18)

Yamal LNG  
(nameplate capacity  
– 16,5 mmtpa)



LNG

Yamal Trade

NOVATEK Gas & Power  
Asia

100% TO INTERNATIONAL MARKET  
BY SEA

1.0 bcm

PRODUCING FIELDS



Separation and  
treatment

Natural gas by pipeline

100% TO DOMESTIC MARKET

19.3 bcm

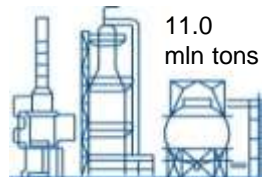
Unstable gas  
condensate by  
pipeline

Crude  
oil by  
pipeline

66%/34% TO  
DOMESTIC/  
INTERNATIONAL  
MARKET

1.1 mln tons

Purovsky Plant (nameplate capacity - 11 mmtpa)



11.0  
mln tons

Stabilization  
of gas  
condensate

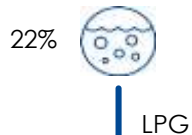
79%

Ust-Luga Complex (nameplate capacity - 6 mmtpa)



7.1  
mln tons

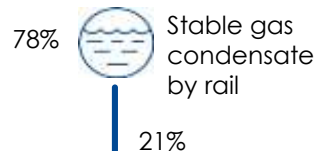
Fractionation  
of stable gas  
condensate



LPG

79%/21% TO DOMESTIC/  
INTERNATIONAL MARKET

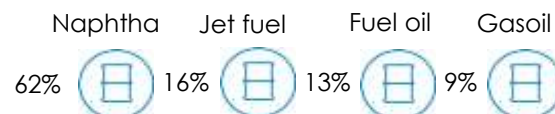
0.6 mln tons



21%

100% TO DOMESTIC MARKET

0.4 mln tons



62%

16%

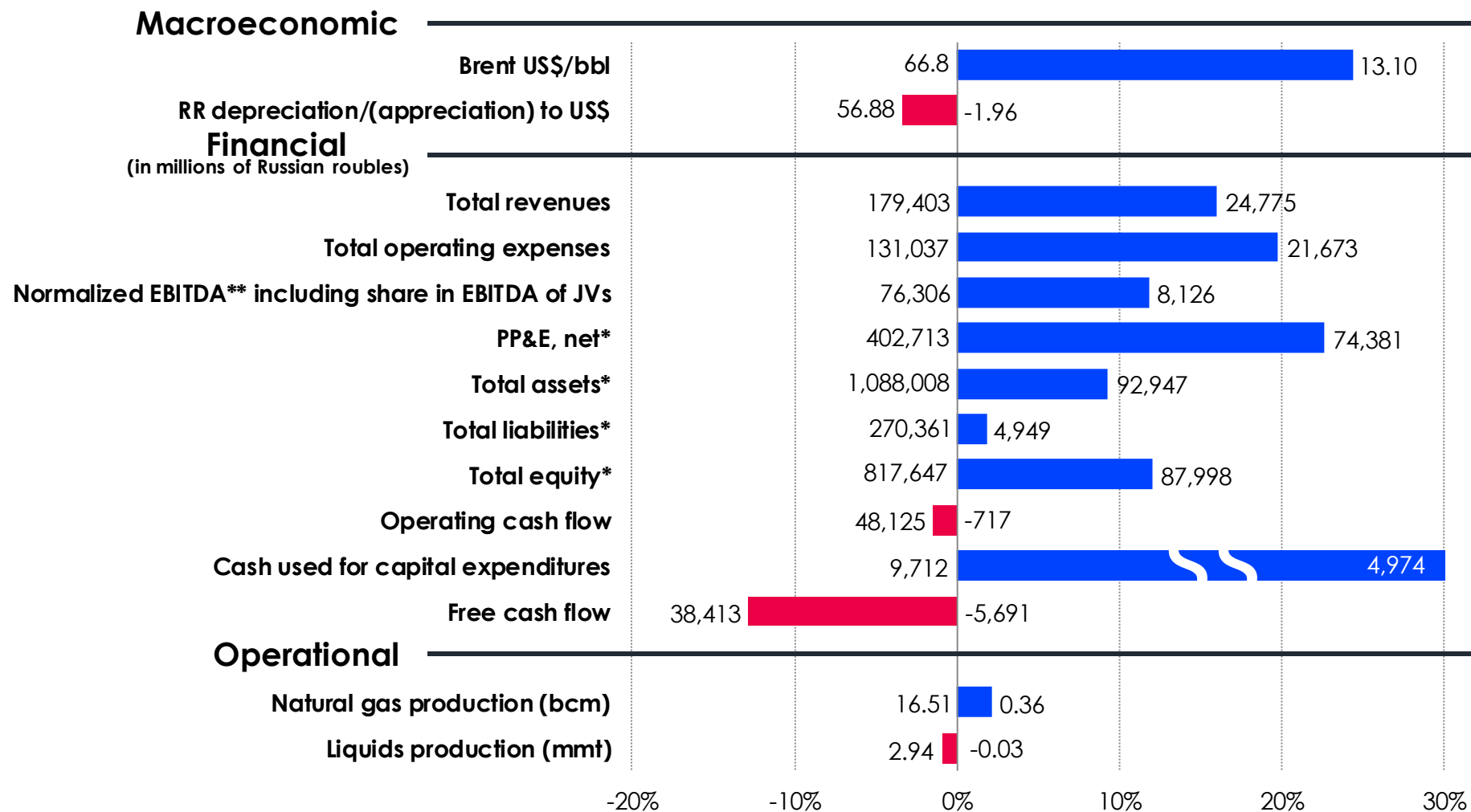
13%

9%

~100% TO INTERNATIONAL MARKET  
BY SEA

1.6 mln tons

# Performance Summary 1Q18/1Q17



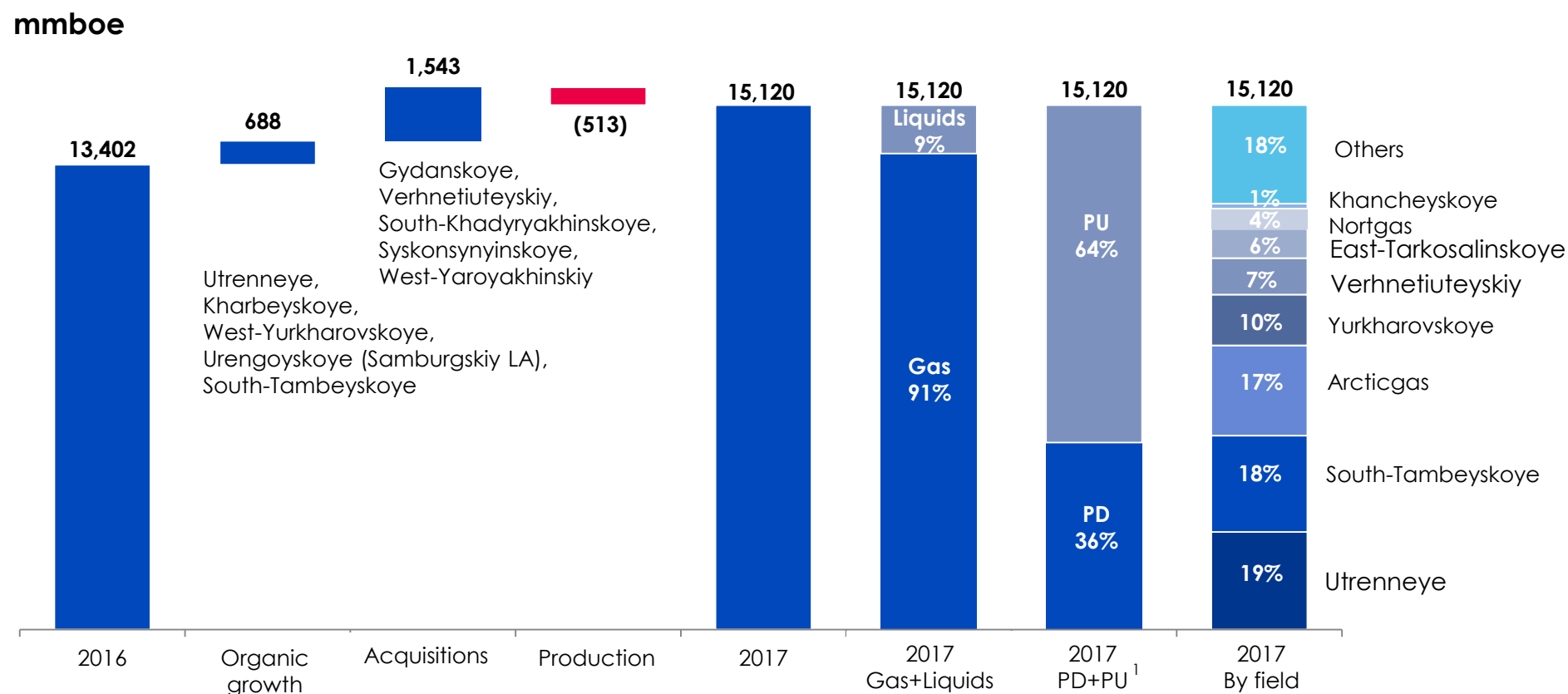
\* 31 March 2018 to 31 March 2017.

\*\* Excluding the effect from the disposal of interests in joint ventures.

Note: Number on the right is the absolute change, number on the left is the value for the reporting period, size of bar is % change

# SEC Proved Reserves

**Reserve replacement rate in 2017 – 435%,  
(134% on an organic basis)**

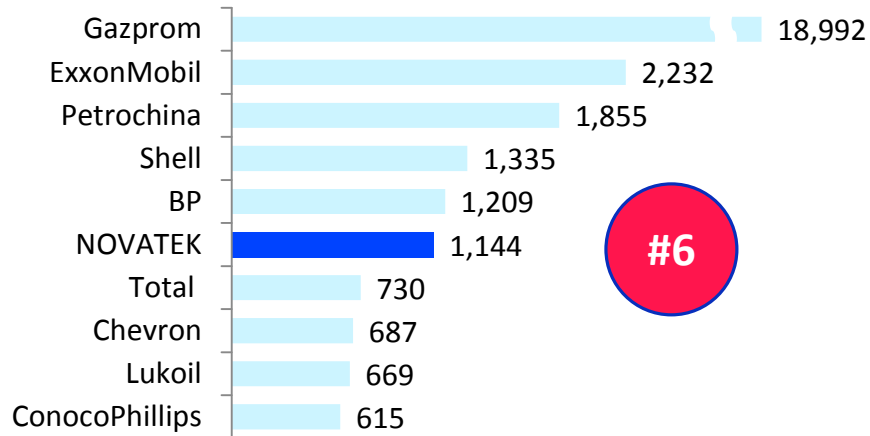


Note:

1. Proved developed and proved undeveloped reserves.

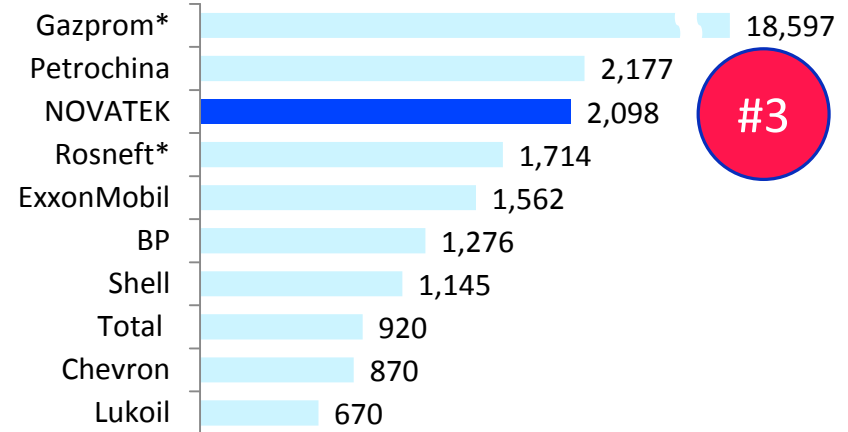
# Positions in the World – Top Ten

Proved gas reserves as at 31.12.10 (SEC), bcm



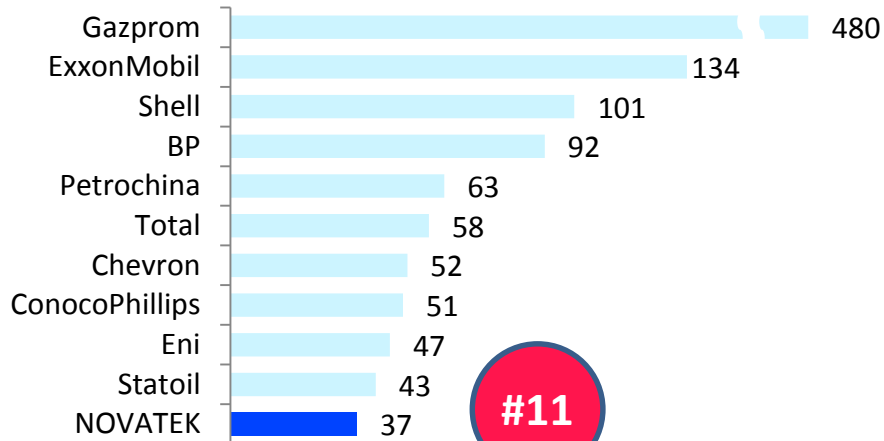
#6

Proved gas reserves as at 31.12.17 (SEC), bcm



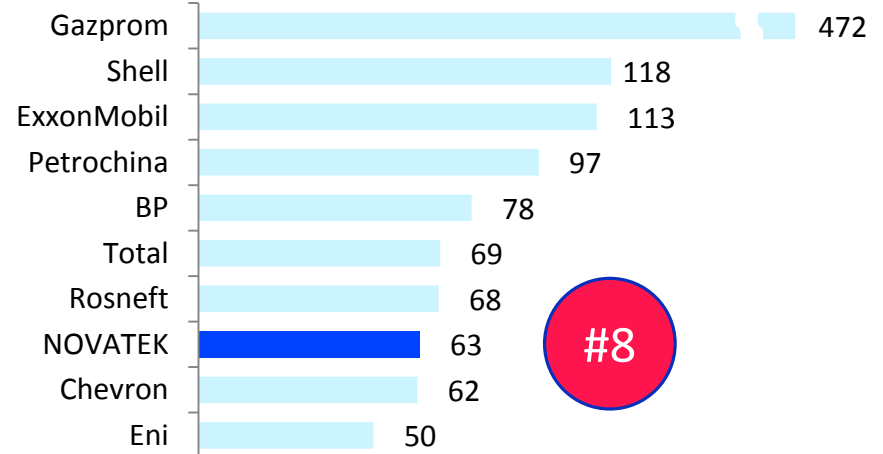
#3

Gas production in 2010, bcm



#11

Gas production in 2017, bcm

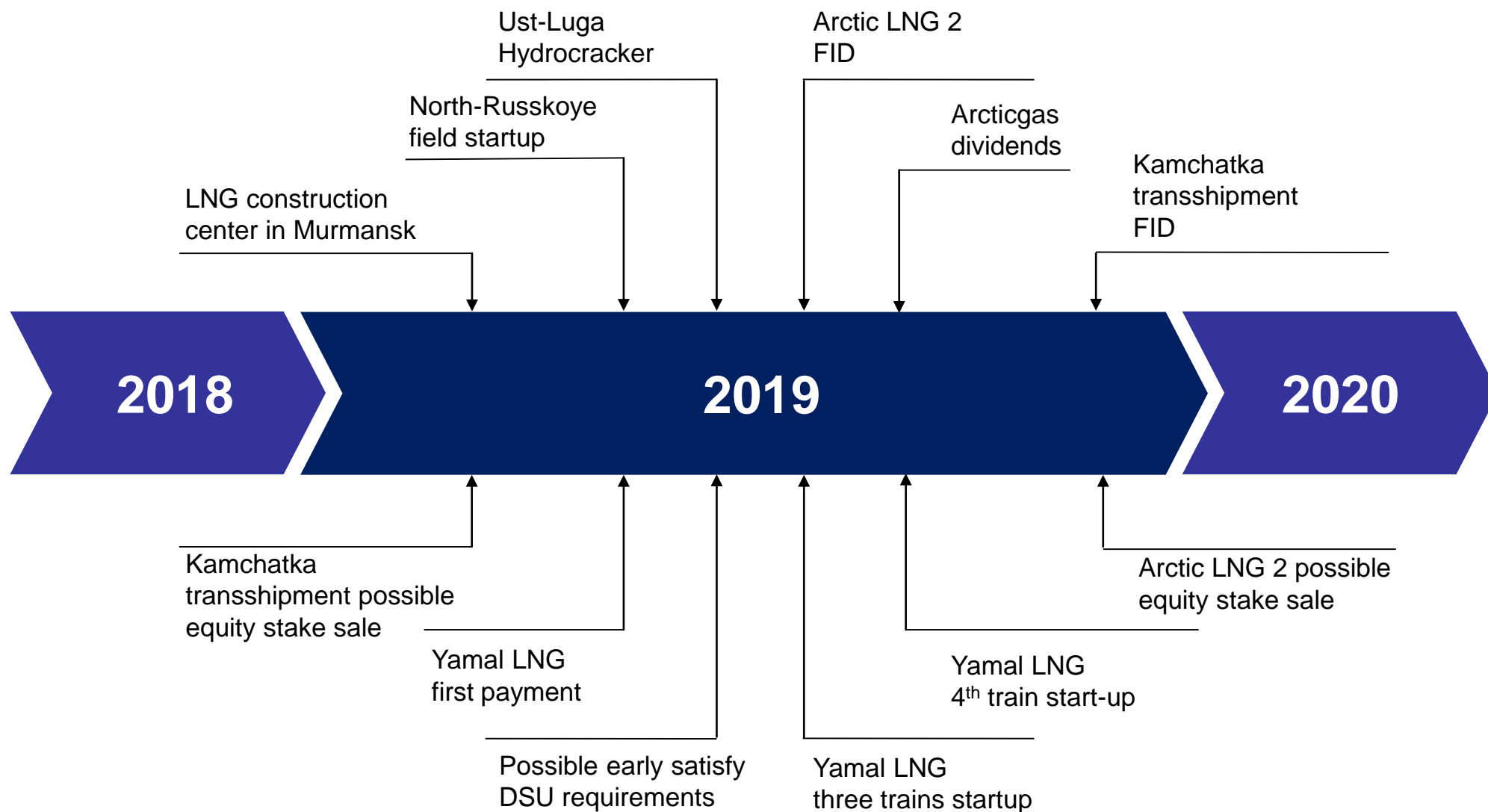


#8

\* As at 31.12.16

Source: Company data, Bloomberg

# Critical Year 2019: All Things Converge



# Key Questions to Answer

- How to successfully monetize over 3.3 trillion cubic meters of natural gas into commercially competitive LNG?
- How to reduce capital cost to a construct liquefaction plant in the \$650 million to \$750 million per million ton range?
- How to develop a viable logistical model to deliver LNG to key consumer gas importing regions?
- How to satisfy the changing dynamics of LNG trade?

✓ **Energy Affordability**

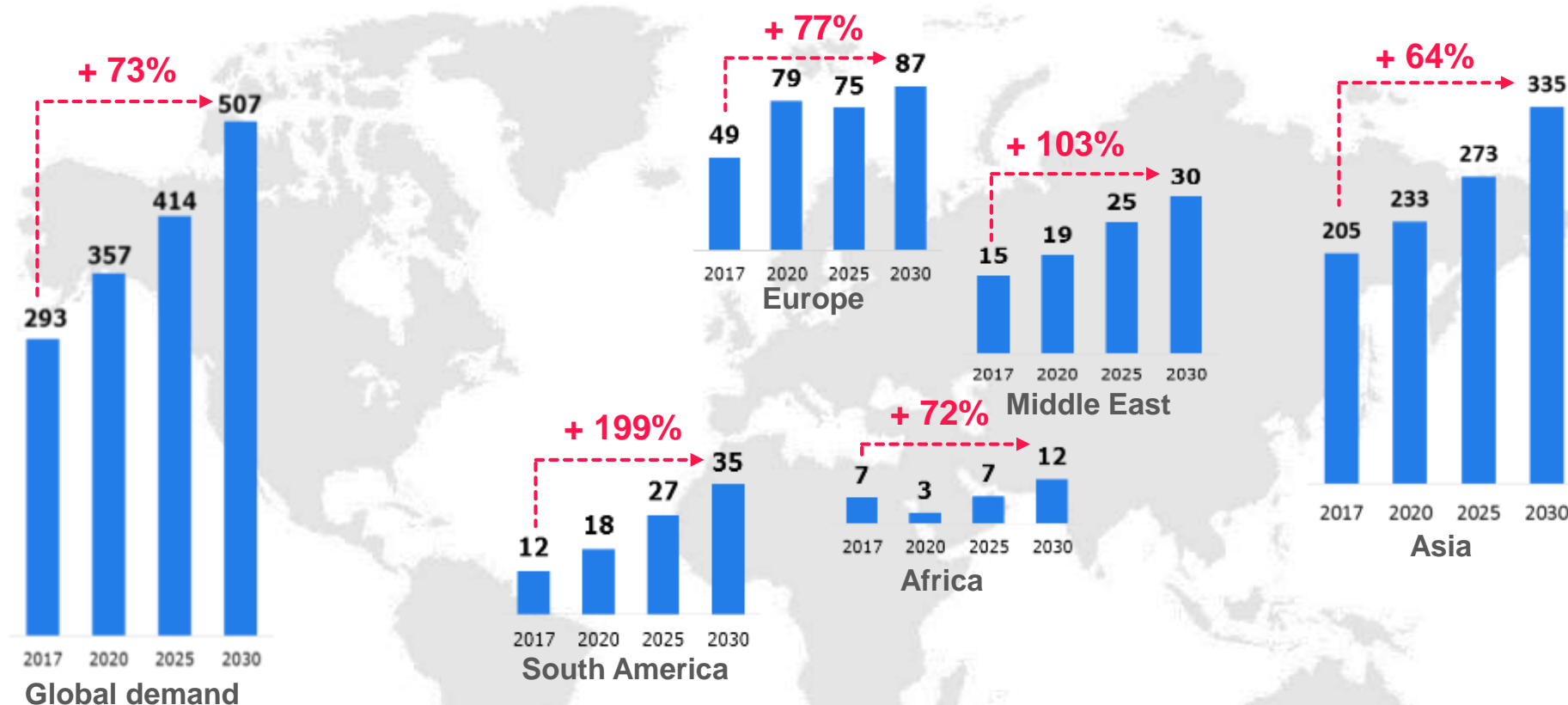
✓ **Energy Security**

✓ **Energy Sustainability**



# Global LNG Demand

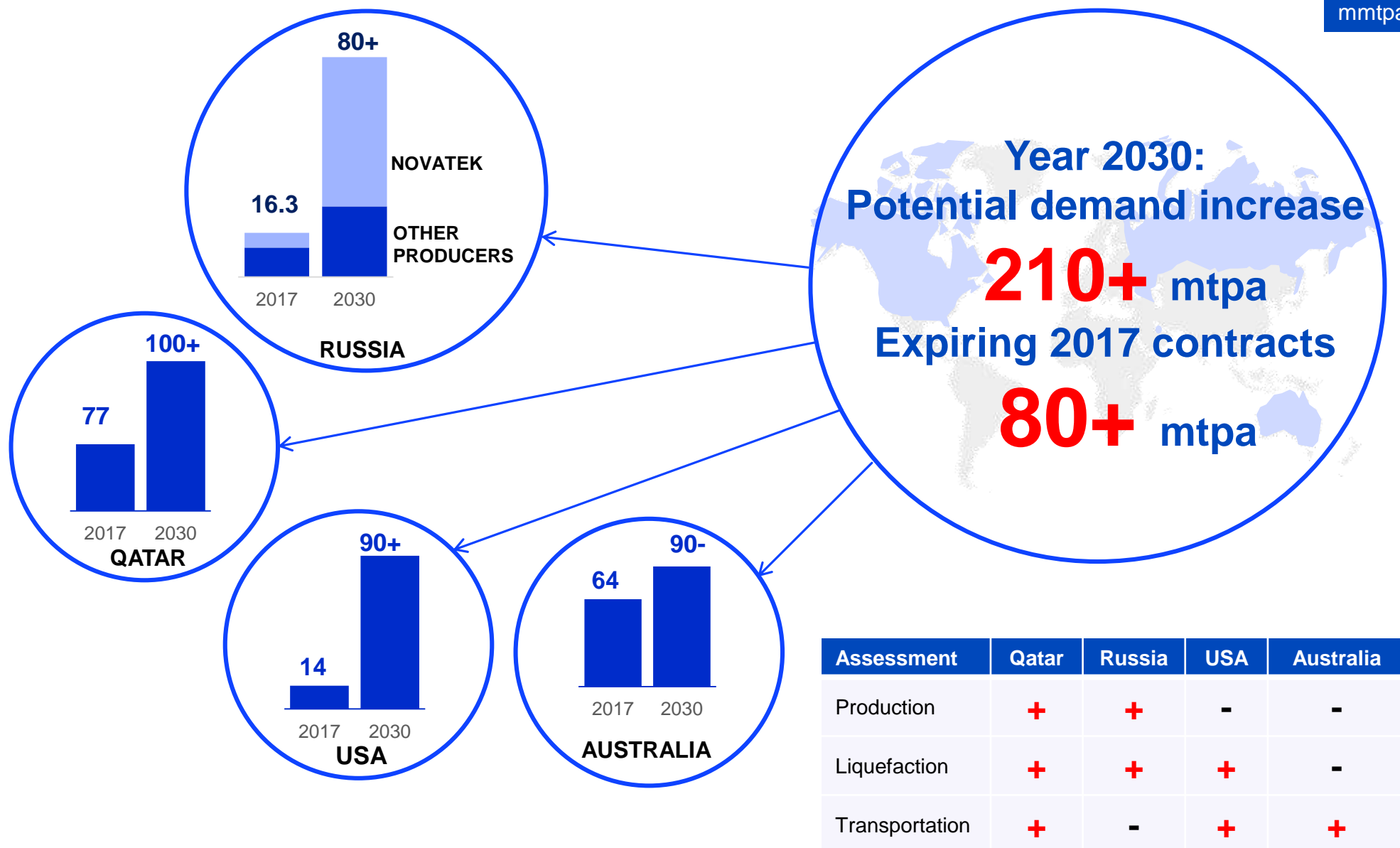
mtpa



**Asia and Europe will account for 79% of incremental LNG demand**

# Four Main LNG Production Centers

mmtpa

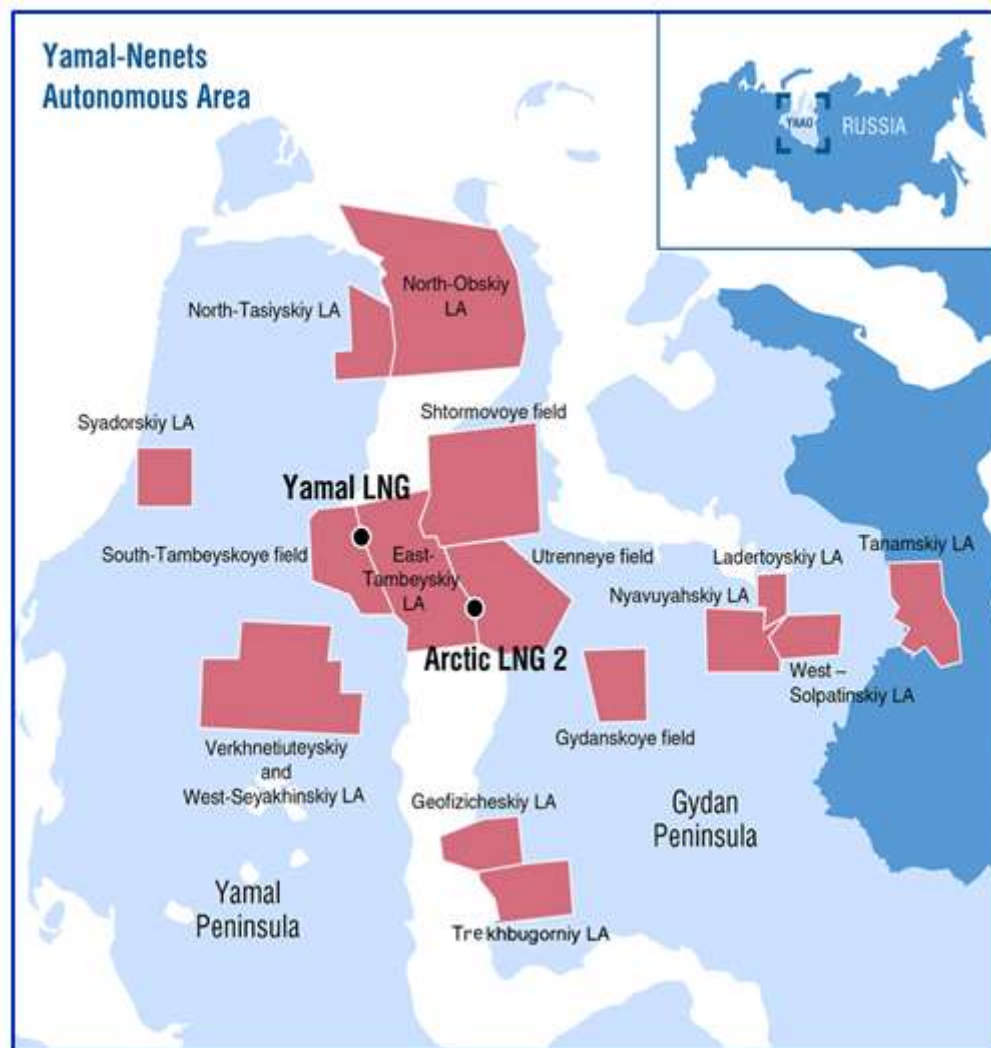


# Strengths in LNG Production



Resource base	<ul style="list-style-type: none"> <li>▪ Prolific conventional hydrocarbon resources located onshore in the Yamal and Gydan peninsulas and in the Ob Bay</li> </ul>
Costs	<ul style="list-style-type: none"> <li>▪ Low cost of production</li> </ul>
Experience	<ul style="list-style-type: none"> <li>▪ Experience in implementing large-scale LNG projects in the Arctic region</li> <li>▪ Experience in exploring, developing and marketing production in the Arctic climate</li> </ul>
Technologies	<ul style="list-style-type: none"> <li>▪ Develop new technology to construct GBS platforms for LNG trains</li> <li>▪ Pilot plant based on our proprietary technology for liquefaction of natural gas</li> </ul>
Logistics	<ul style="list-style-type: none"> <li>▪ Experience of transporting cargoes along the Northern Sea Route</li> <li>▪ Project of constructing transshipment facility in Kamchatka</li> </ul>

# Yamal and Gydan Reserves



PRMS Reserves at 31.12.2017	Gas, bcm 100% /share <sup>(1)</sup>	Condensate, mmt 100% /share <sup>(1)</sup>
<b>TOTAL for LNG:</b>	2,021 / 1,624	81 / 68

*including:*

South-Tambeyskoye	992 / 595	32 / 19
Utrenneye	1,029 / 1,029	49 / 49

Potential PRMS reserves addition through 2030	Gas, bcm 100% /share <sup>(1)</sup>	Condensate, mmt 100% /share <sup>(1)</sup>
	1,599 / 1,493	102 / 95

(1) Includes NOVATEK proportionate share in JVs



# Arctic LNG 2

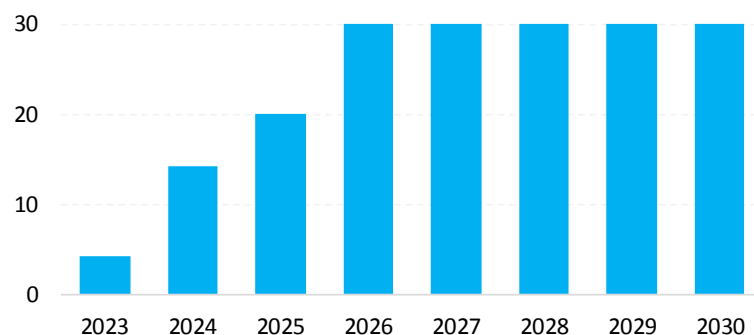


Utrenneye	Gas, bcm	Liquids, mmt
PRMS Reserves at 31.12.2017	1,029	49

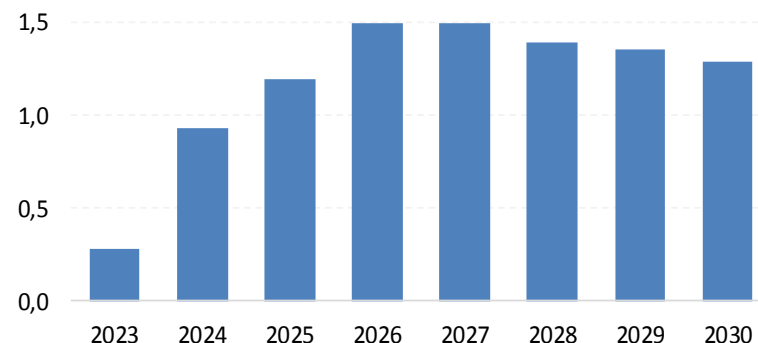
## Jurassic layers development may increase gas reserves by 40%

Concept	<ul style="list-style-type: none"> <li>Utrenneye feeder field for Arctic LNG 2</li> <li>New concept of LNG trains based on GBS platforms</li> <li>Three LNG trains at 6.6 mtpa each utilizing Linde liquefaction license</li> <li>GBS platforms built at LNG construction center (Murmansk)</li> <li>FEED in progress (expected completion late 2018)</li> </ul>
Advantages	<ul style="list-style-type: none"> <li>Tax concessions approved per RF legislation, the same as for Yamal LNG</li> <li>Optimize and reduce CAPEX per ton of LNG liquefaction</li> <li>Low cost, onshore conventional natural gas</li> <li>Leverage existing infrastructure</li> <li>Minimize environmental impact</li> </ul>

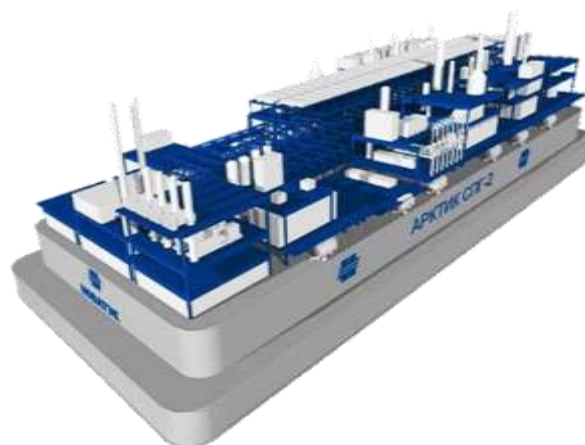
Natural gas production at Utrenneye field, bcm



Gas condensate production at Utrenneye field, mmt



# GBS LNG Plant Concept

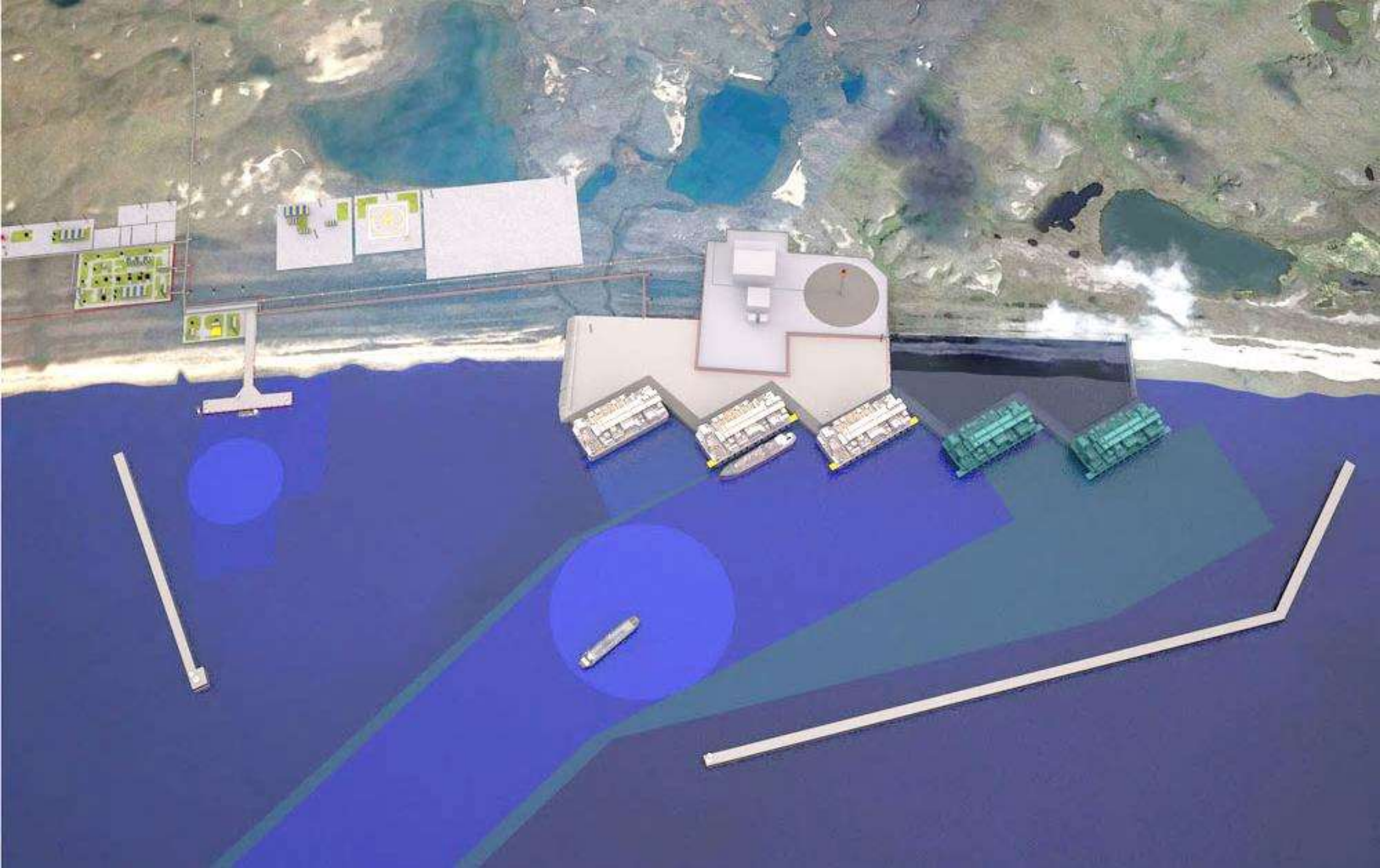


## Parameters for each GBS train

- GBS dimensions: 300 m x 152 m
- GBS weight: 440 thousand tons
- Overall LNG tanks volume: 213 thousand m<sup>3</sup>
- Mixed Fluid Cascade (MFC) process by Linde
- 4 gas turbine drives x 55 MW,
- 3 gas turbine drives the power plant 165 MW

Concept of the future plant	<ul style="list-style-type: none"> <li>▪ Construct LNG trains based on gravity-based structures (GBS)</li> <li>▪ GBS platforms will be fabricated and assembled at LNG construction center</li> </ul>
Implementation stage	<ul style="list-style-type: none"> <li>▪ Pre-FEED stage completed; FEED stage commenced in Q2 2017</li> <li>▪ FEED stage will define optimal layout of the LNG train</li> <li>▪ FEED estimated to be completed by the end of 2018</li> </ul>
Advantages of the chosen concept	<ul style="list-style-type: none"> <li>▪ Reduce construction and logistical costs as main LNG equipment is built and installed at the LNG construction center</li> <li>▪ High local content; reduced construction schedule risks; and minimized external risk exposure</li> <li>▪ Minimize scope of work in the Arctic area</li> </ul>

**GBS LNG concept will significantly reduce overall liquefaction cost**









# Factor Analysis: Lowering Liquefaction Costs

1	Landscape preparation, including land works, piles and thermal stabilizers installation	x
2	Construction of living modules	x
3	LNG train modules logistics, including the construction of special vessels for large scale modules	x
4	Logistics and testing of large scale modules	x
5	Construction in Arctic climatic conditions	x
6	Yards supervision	x
7	Contingency costs	x
8	Decrease of cost of metal construction, pipelines and infrastructure due to localization	✓
9	Increase of LNG train capacity	✓

x - not required and will lead to cost reduction  
 ✓ - will lead to cost reduction

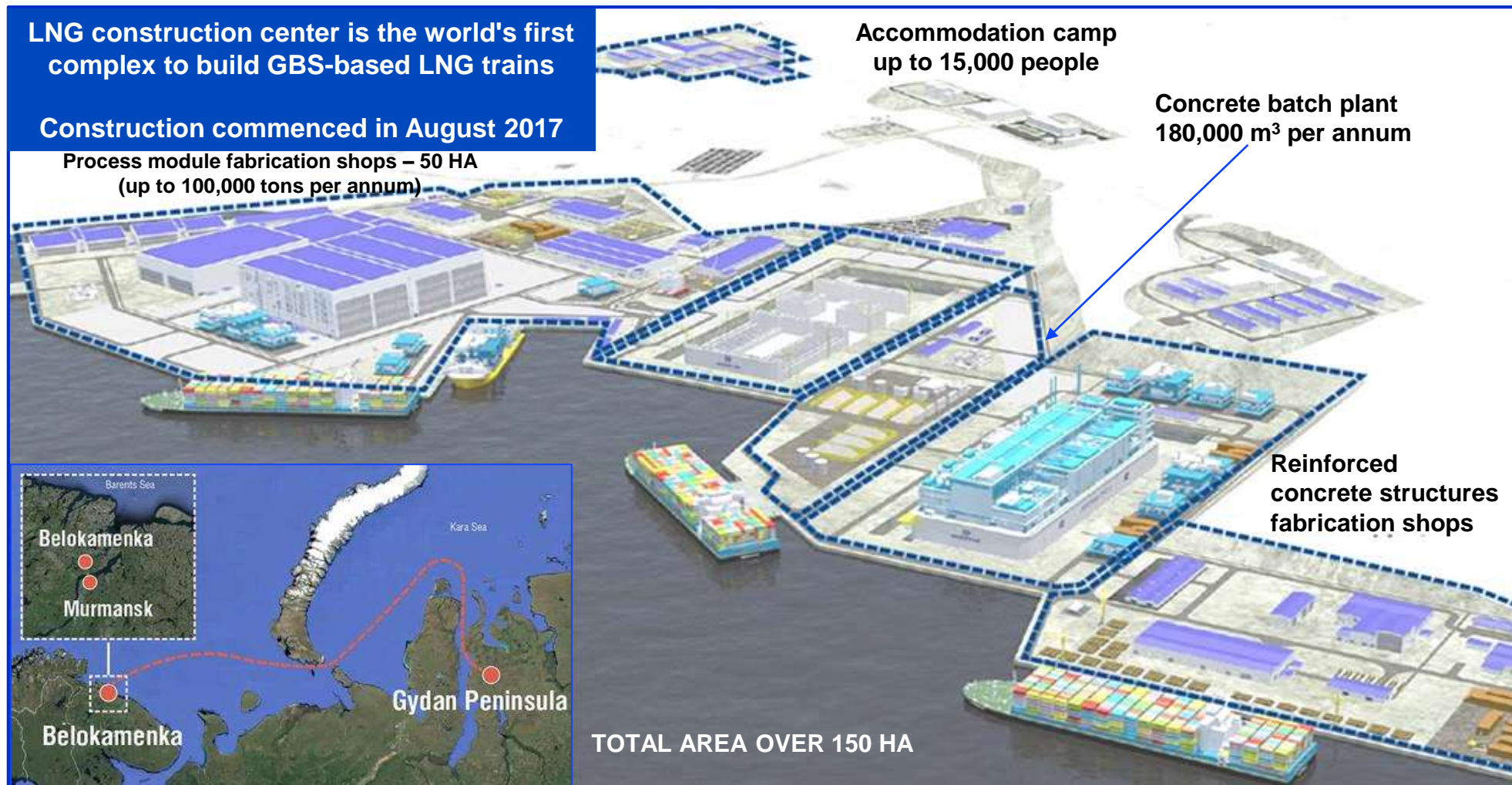
**Targeted decrease of  
 Arctic LNG 2 plant construction  
 cost compared to Yamal LNG by  
 at least**

**30%**

**Additional costs reduction potential through the  
 scalable construction of GBS platforms**



# LNG Construction Center: Develop LNG Expertise



LNG construction center to provide scalable construction of LNG trains on GBS platforms

# LNG Transshipment Complex: Kamchatka Peninsula

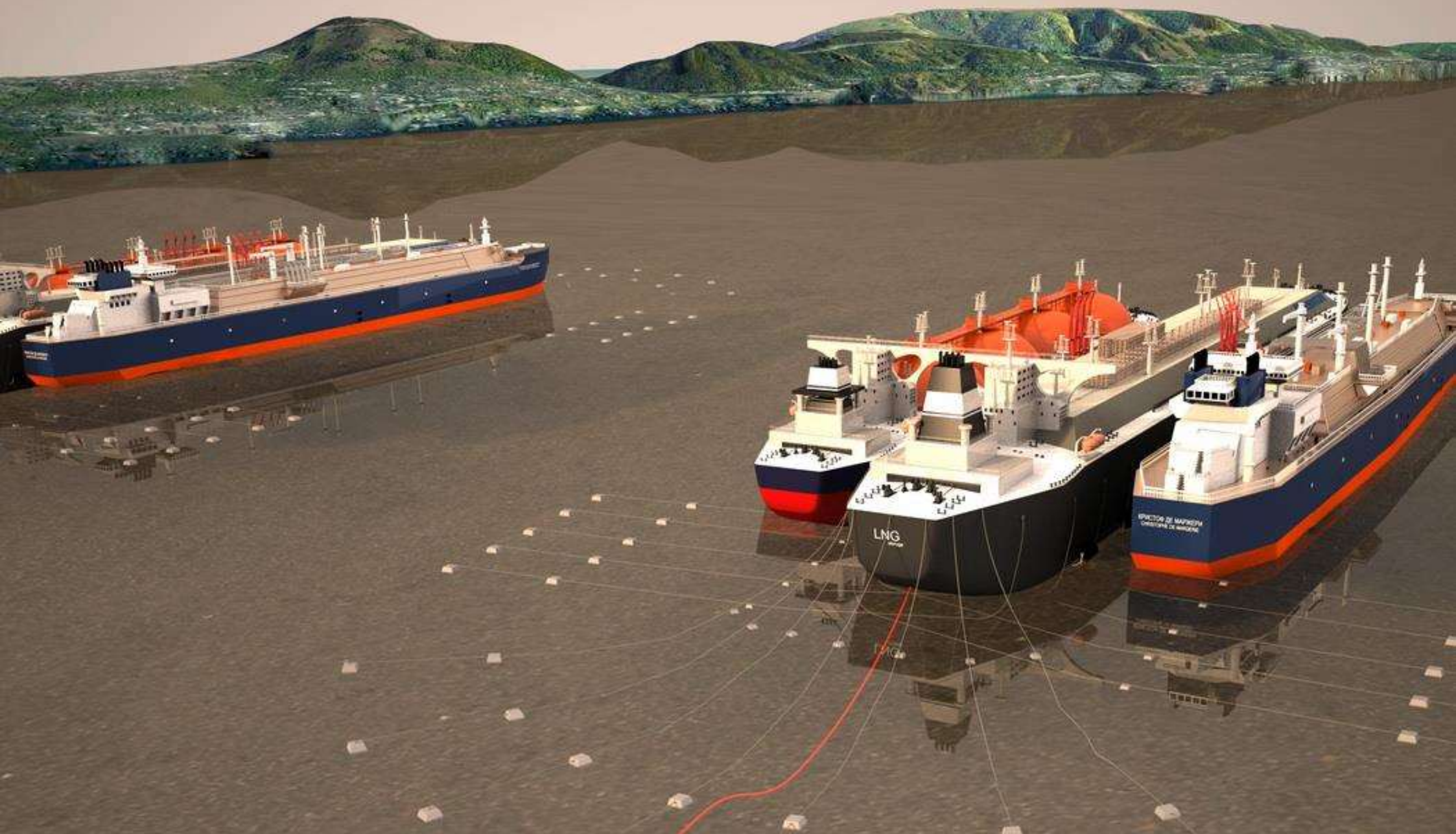
<b>Planned transshipment capacity</b>	<ul style="list-style-type: none"><li>▪ 20 million tons per annum</li></ul>
<b>Location</b>	<ul style="list-style-type: none"><li>▪ In close proximity to Petropavlovsk-Kamchatskiy</li><li>▪ 4,000 nautical miles from Sabetta</li></ul>
<b>Concept</b>	<ul style="list-style-type: none"><li>▪ Moored LNG storage ship</li><li>▪ Option to sell FOB Kamchatka</li></ul>
<b>Project status</b>	<ul style="list-style-type: none"><li>▪ Pre-FEED to be completed by year-end 2017</li><li>▪ FEED to be completed in 2018</li><li>▪ Launch – 2022 and 2023</li></ul>









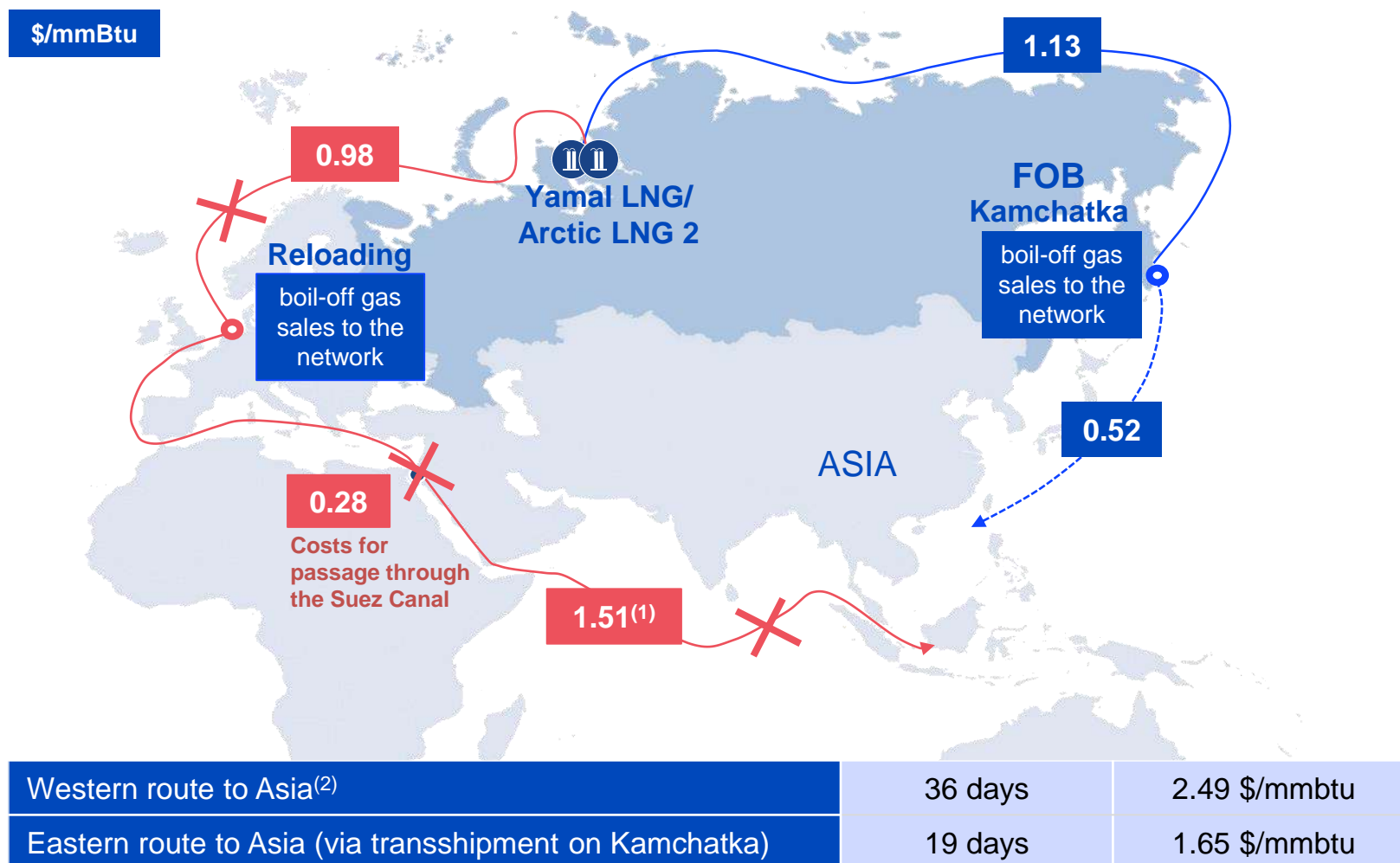


# Yamal LNG Sales Cargoes

Shipped inception to 1Q18: 20 cargoes\*



# Future LNG Project Logistics



- Decrease costs by ~ 0.8 \$/mmbtu for volumes delivered via the Suez Canal
- Increase LNG sales volumes due to lower boil-off gas volumes from the shorter transport distance
- Direct access to premium markets and full control of the supply chain

(1) Including costs for passage through the Suez Canal

(2) NOVATEK



# ARC7 Ice-Class LNG Tankers



CAPACITY  
**170,000 m<sup>3</sup>**

LENGTH  
**299 m**

WIDTH  
**50 m**

HEIGHT  
**60 m**

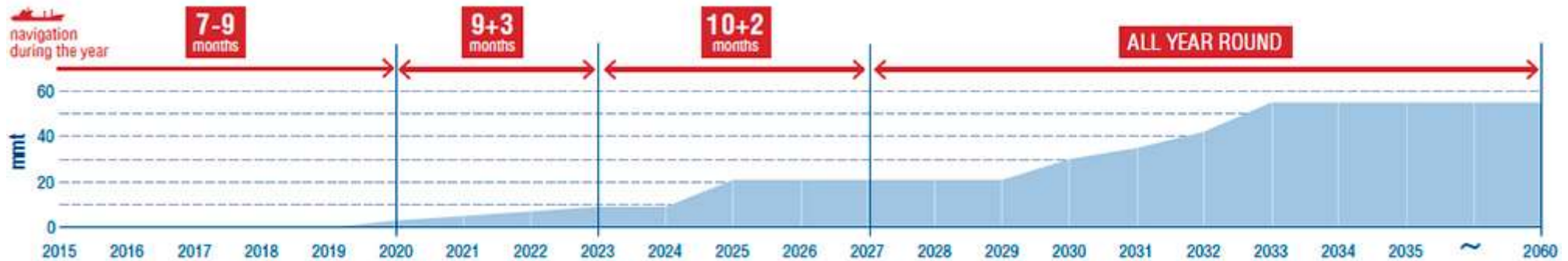
POWER  
**45 MWt**

DISPLACEMENT  
**144,000 t**



# Northern Sea Route Navigation

## LNG transit via Northern Sea route subject to icebreakers commissioning



LK-60 nuclear icebreaker (60 MW)



LD-type icebreaker (120 MW)



ARC 130-type LNG-fueled icebreaker  
(21 MW, 40 MW, 60 MW)

## Icebreaking fleet is being renewed: three new icebreaker types are being designed

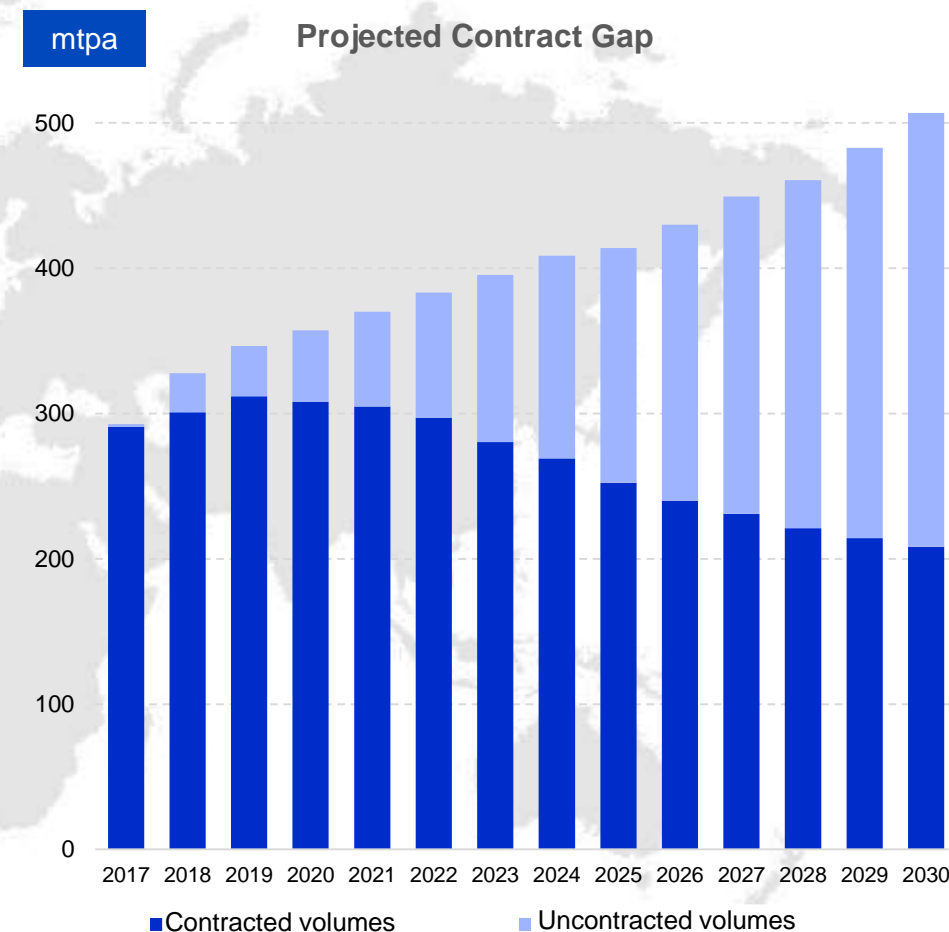
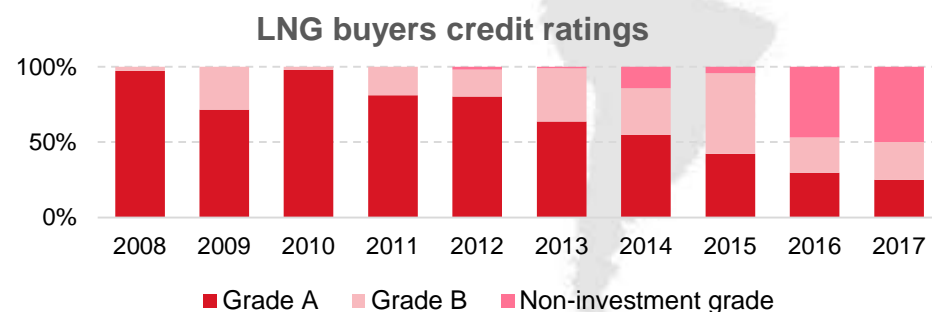
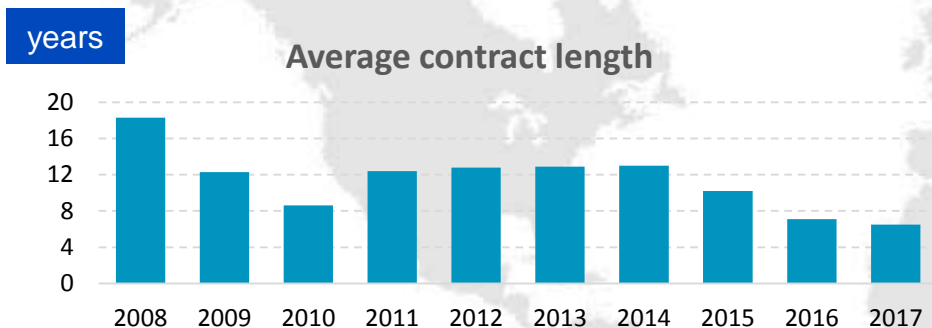
### LK-60 nuclear icebreakers:

- The ARKTIKA nuclear icebreaker was put afloat on June 6, 2016 (to be brought into operation in 2019)
- The SIBIR nuclear icebreaker was put afloat on September 22, 2017 (to be brought into operation in 2020)
- The URAL nuclear icebreaker (to be brought into operation in 2022)

**The LD nuclear icebreaker** – development of design documentation is underway.  
Expected completion date – December 2017

**ARC 130-type LNG-fueled icebreaker** – at the design stage

# LNG Contract Profiles

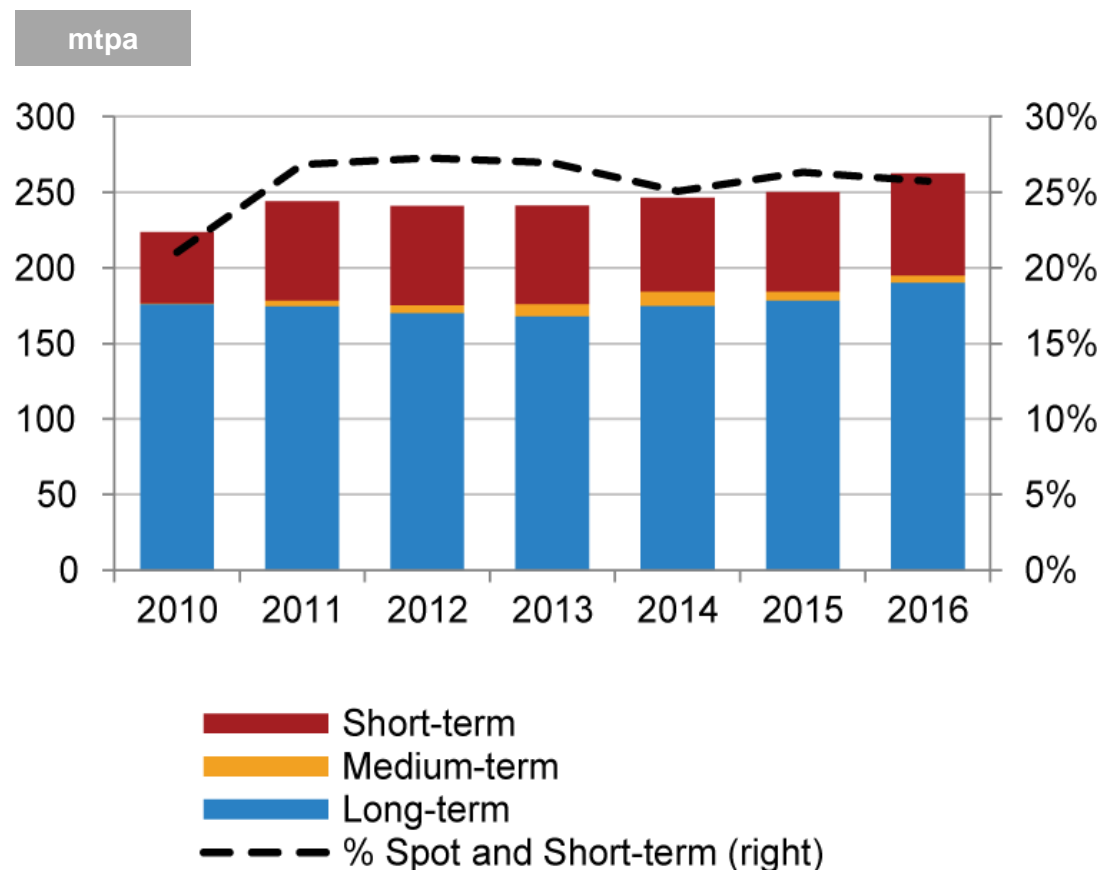


**Expiring contracts create marketing opportunities for low costs and flexible LNG supplies**

# LNG Pricing at Old and New Paradigm

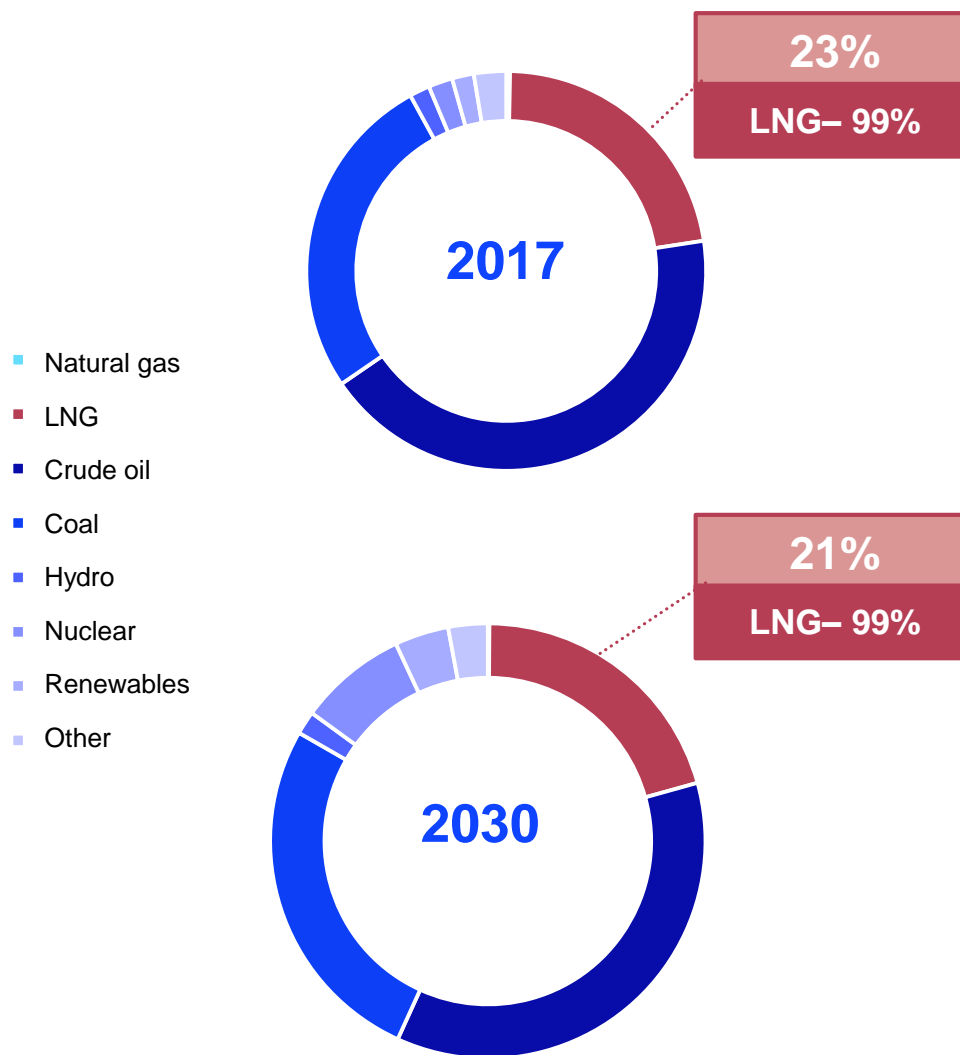
Terms	Old	New
Duration	average 20 years	average 10 years
Formula and indexation	oil linked	mixed: oil, gas, hub
Flexibility	limited	by offtake, direction, usage
Volumes	large (2-3 mtpa)	small - medium (0.5-1.5 mtpa)
Price level	Europe and Asia arbitrage	no arbitrage

LNG trading by the contract length



# LNG demand: Japan

## Gas share in total energy balance



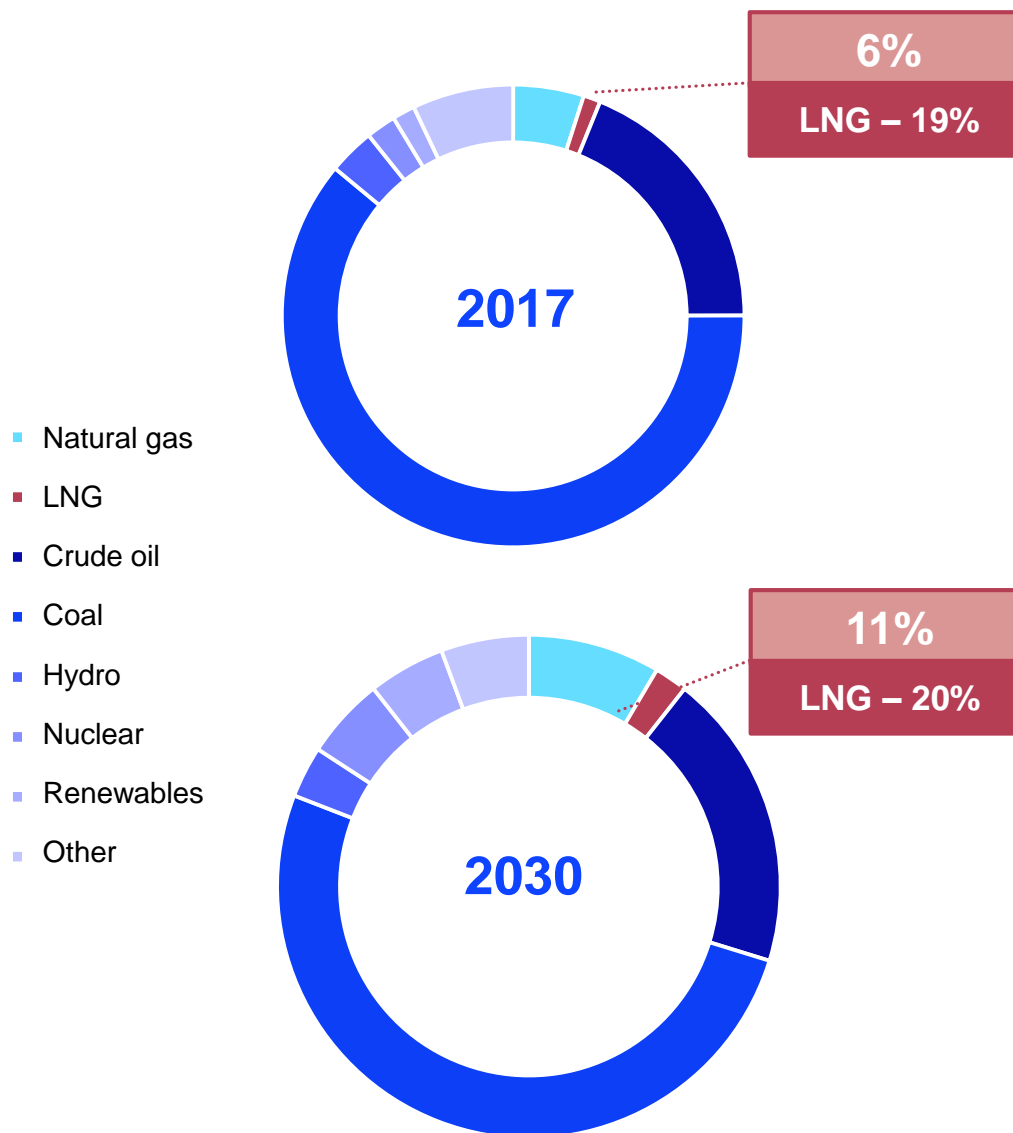
2017	2030
LNG consumption <b>81</b> mtpa	LNG consumption <b>71 - 85</b> mtpa
<b>JAPAN GAS DEMAND DRIVERS:</b> <ul style="list-style-type: none"> <li>■ Nuclear energy uncertainty</li> <li>■ Aging population</li> <li>■ Increase in renewables</li> <li>■ Expiring LNG long-term contracts replacement</li> <li>■ Developed port infrastructure</li> </ul>	

The map illustrates Japan's LNG import strategy and regasification capacity. Key elements include:

- Import Routes and Lead Times:**
  - Yamal LNG / Arctic LNG (RUSSIAN FEDERATION):** 36 days (dashed red line).
  - LNG NOVATEK Kamchatka (LNG FOB):** 12 days (solid red line).
  - QATAR:** 17 days (solid blue line).
  - MOZAMBIQUE:** 18 days (solid blue line).
  - MALAYSIA:** 7 days (solid blue line).
  - AUSTRALIA:** 9 days (solid blue line).
  - USA:** 25 days (solid blue line).
- Regasification Capacity (2016):** A circular inset map of Japan shows 25 regasification facilities with a total capacity of 200 mtpa.
  - Facilities:** Kuroishi LNG (Satellite), Ishikari LNG, Hakodate, Nihonkai (Niigata), Joetsu, Naoetsu Phase 1, Himeji Expansion I&II, Himeji I&II, Mazushima LNG, Mazushima LNG (Exp.), Hatsukaichi, Tobata, Hibiki LNG, Fukuoka (Hakata), Nagasaki, Oita, Yanai, Sakaide, Kawagoe, Sodeshi, Futtsu, Sodegaura, Sodegaura (Exp.), Hitachi Phase 1, Shin-Sendai, Sendai - Shin Minato Works, Hachinohe LNG, Hachinohe LNG (Satellite), Yufutsu (Satellite), Chita LNG, Chita Kyodo, Chita Midorihamma Works, Yokaichi LNG Center, Yokaichi Works, Negishi, Higashi-Ongishima, Ongishima (Exp.), Sakaide, Kawagoe, Yanai, Oita, Nagasaki, Fukuoka (Hakata), Tobata, Hatsukaichi, Mazushima LNG, Mazushima LNG (Exp.), Himeji I&II, Himeji Expansion I&II, Naoetsu Phase 1, Joetsu, Nihonkai (Niigata), Hakodate, Ishikari LNG, Kuroishi LNG (Satellite).

# LNG demand: China

## Gas share in total energy balance



2017	2030
LNG consumption 30 mtpa	LNG consumption 67 - 120 mtpa
<b>CHINA GAS DEMAND DRIVERS:</b> <ul style="list-style-type: none"> <li>“Green” policy</li> <li>Population and economy growth</li> <li>Indigenous gas production uncertainty</li> <li>Increasing gas usage</li> </ul>	

# LNG Strategic Goals

Low cost provider of LNG	<ul style="list-style-type: none"> <li>▪ Low upstream costs</li> <li>▪ Low liquefaction costs</li> <li>▪ Competitively priced LNG at all key-consuming markets</li> </ul>
Adopt LNG marketing strategy	<ul style="list-style-type: none"> <li>▪ Flexible duration terms</li> <li>▪ Flexible pricing formulas</li> <li>▪ Flexible volume sizes</li> <li>▪ Flexible destination clause</li> </ul>
Build Kamchatka transshipment terminal	<ul style="list-style-type: none"> <li>▪ Establish Russian hub price</li> <li>▪ Provide shorter delivery time to reach perspective LNG market</li> <li>▪ Attractive for potential partners</li> </ul>
Scalable LNG projects	<ul style="list-style-type: none"> <li>▪ Adopt projects to market demand</li> <li>▪ Opportunity to create fully integrated projects (upstream, liquefaction, transport, marketing)</li> </ul>
Lower logistic costs	<ul style="list-style-type: none"> <li>▪ Build new tankers with lower costs</li> <li>▪ More efficient usage of NSR with longer navigation period</li> <li>▪ Lower usage of icebreakers</li> <li>▪ Use reloading terminals (Kamchatka, Zeebrugge etc.)</li> </ul>

✓ Energy Affordability

✓ Energy Security

✓ Energy Sustainability



















# Disclaimer – Forward Looking Statement

Matters discussed in this presentation may constitute forward-looking statements. Forward-looking statements include statements concerning plans, objectives, goals, strategies, future events or performance, and underlying assumptions and other statements, which are other than statements of historical facts. The words "believe," "expect," "anticipate," "intends," "estimate," "forecast," "project," "will," "may," "should" and similar expressions identify forward-looking statements. Forward-looking statements include statements regarding: strategies, outlook and growth prospects; future plans and potential for future growth; liquidity, capital resources and capital expenditures; growth in demand for our products; economic outlook and industry trends; developments of our markets; the impact of regulatory initiatives; and the strength of our competitors.

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- changes in the balance of oil and gas supply and demand in Russia, Europe, and Asia;
- the effects of domestic and international oil and gas price volatility and changes in regulatory conditions, including prices and taxes;
- the effects of competition in the domestic and export oil and gas markets;
- our ability to successfully implement any of our business strategies;
- the impact of our expansion on our revenue potential, cost basis and margins;
- our ability to produce target volumes in the event, among other factors, of restrictions on the Company access to transportation infrastructure;
- the effects of changes to our capital expenditure projections on the growth of our production;
- inherent uncertainties in interpreting geophysical data;
- commercial negotiations regarding oil and gas sales contracts;
- changes to project schedules and estimated completion dates;
- potentially lower production levels in the future than currently estimated by our management and/or independent petroleum reservoir engineers;
- our ability to service our existing indebtedness;
- our ability to fund our future operations and capital needs through borrowing or otherwise;
- our success in identifying and managing risks to our businesses;
- our ability to obtain necessary regulatory approvals for our businesses;
- the effects of changes to the Russian legal framework concerning currently held and any newly acquired oil and gas production licenses;
- changes in political, social, legal or economic conditions in Russia and the CIS;
- the effects of, and changes in, the policies of the government of the Russian Federation, including the President and his administration, the Prime Minister, the Cabinet and the Prosecutor General and his office;
- the effects of international political events, including changes in the foreign countries' and their governments' policy towards the Russian Federation and Russian companies;
- the effects of technological changes;
- the effects of changes in accounting standards or practices; and
- inflation, interest rate and exchange rate fluctuations.

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We do not make any representation, warranty or prediction that the results anticipated by such forward-looking statements will be achieved, and such forward-looking statements represent, in each case, only one of many possible scenarios and should not be viewed as the most likely or standard scenario.

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