

# Progress of Mitsui's LNG Projects



July 8<sup>th</sup>, 2019  
Mitsui & Co., Ltd.

# Participation in Arctic LNG 2 Project in Russia

1. Project Overview
2. Development Concept
3. Advantages of the Project

# Project Overview

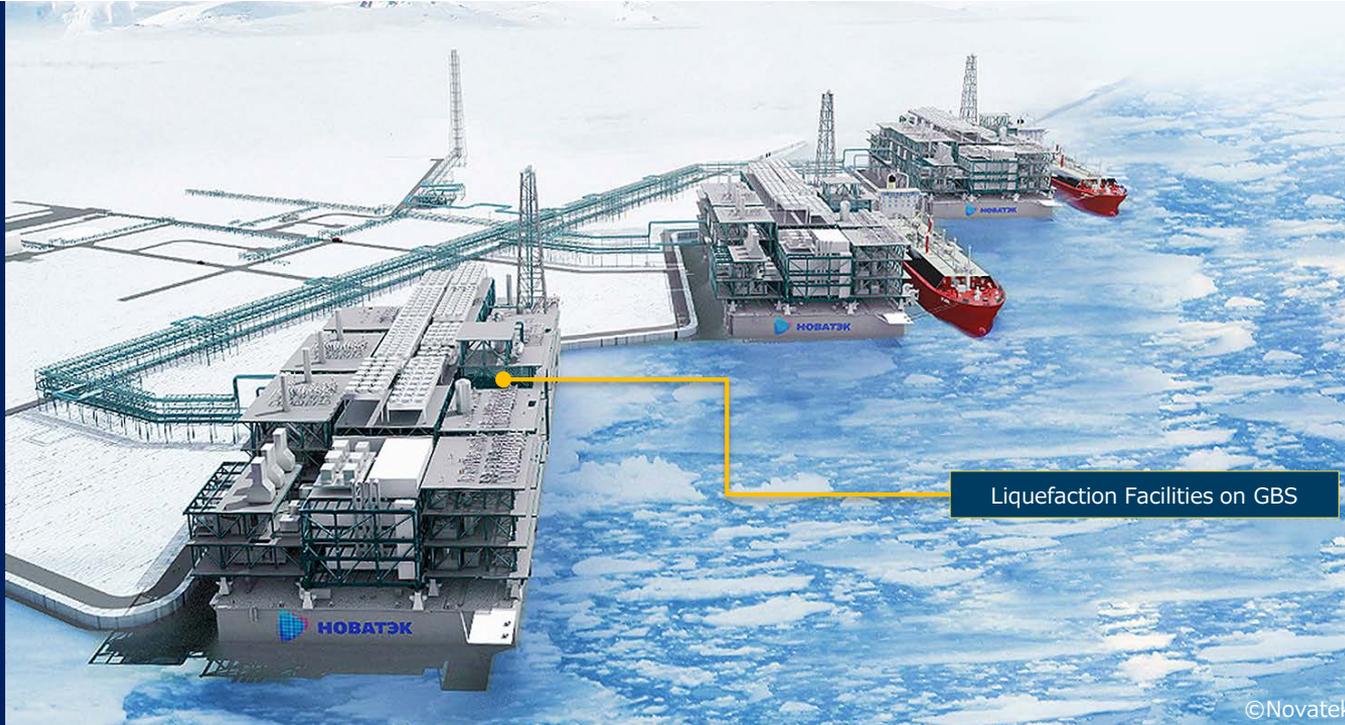
Site	Gydan Peninsula Yamalo-Nenets Autonomous District, Russian Federation	
Licensed Area	Utrenneye gas condensate field	
LNG Production Capacity	19.8 million tonnes / year (3 trains total)	
Project Company	Arctic LNG2 LLC	
FID timing	3Q, 2019 (Plan)	
Estimated Costs	21-23billion USD <sup>(1)</sup>	
Participants (After Mitsui's participation)	Novatek	60%
	TOTAL	10%
	CNPC	10%
	CNOOC	10%
	Japan Arctic LNG*	10%
	*Joint Venture of Mitsui and JOGMEC	

(1) Estimation of Novatek



© Novatek

# Development Concept



## Development Concept

- ◆ Upstream development of conventional onshore gas field.
- ◆ Liquefaction facilities on Gravity-Based Structure (GBS)
- ◆ Decrease of site work with Modular liquefaction facilities
- ◆ Construction of GBS and facilities modules in dedicated yards

## Production Start<sup>(1)</sup>

- ◆ 1<sup>st</sup> Train : 2023
- ◆ 2<sup>nd</sup> Train : 2024
- ◆ 3<sup>rd</sup> Train : 2025-26

(1)Estimation of Novatek

# Advantages of the Project

## Area utilizing ice-class LNG carriers



Murmansk  
Transshipment Terminal

Arctic LNG2

Kamchatka  
Transshipment Terminal

## Transshipment Terminals (Kamchatka/Murmansk)



- ◆ Integrated upstream development in the Yamalo-Nenets region based on competitive rich gas reserves
- ◆ Cost competitiveness based on optimized development concept
- ◆ Project location enables access to markets in Asia, Europe and other areas via Northern Sea Route

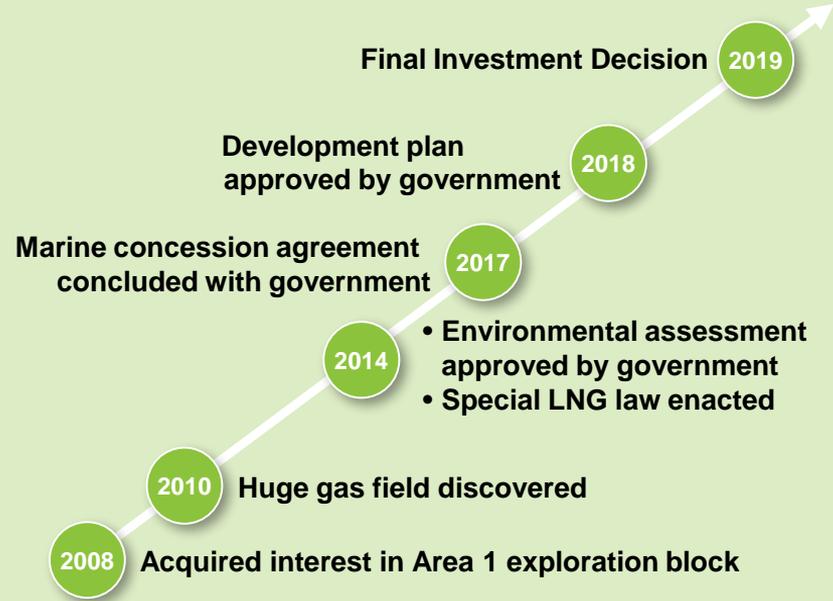
# Mozambique Area 1 LNG Project

1. Exploration Block & Development History
2. Development Overview
3. Artist's Rendering
4. Features

# Exploration Block & Development History

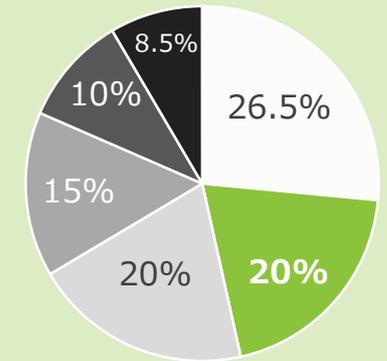


## Development History

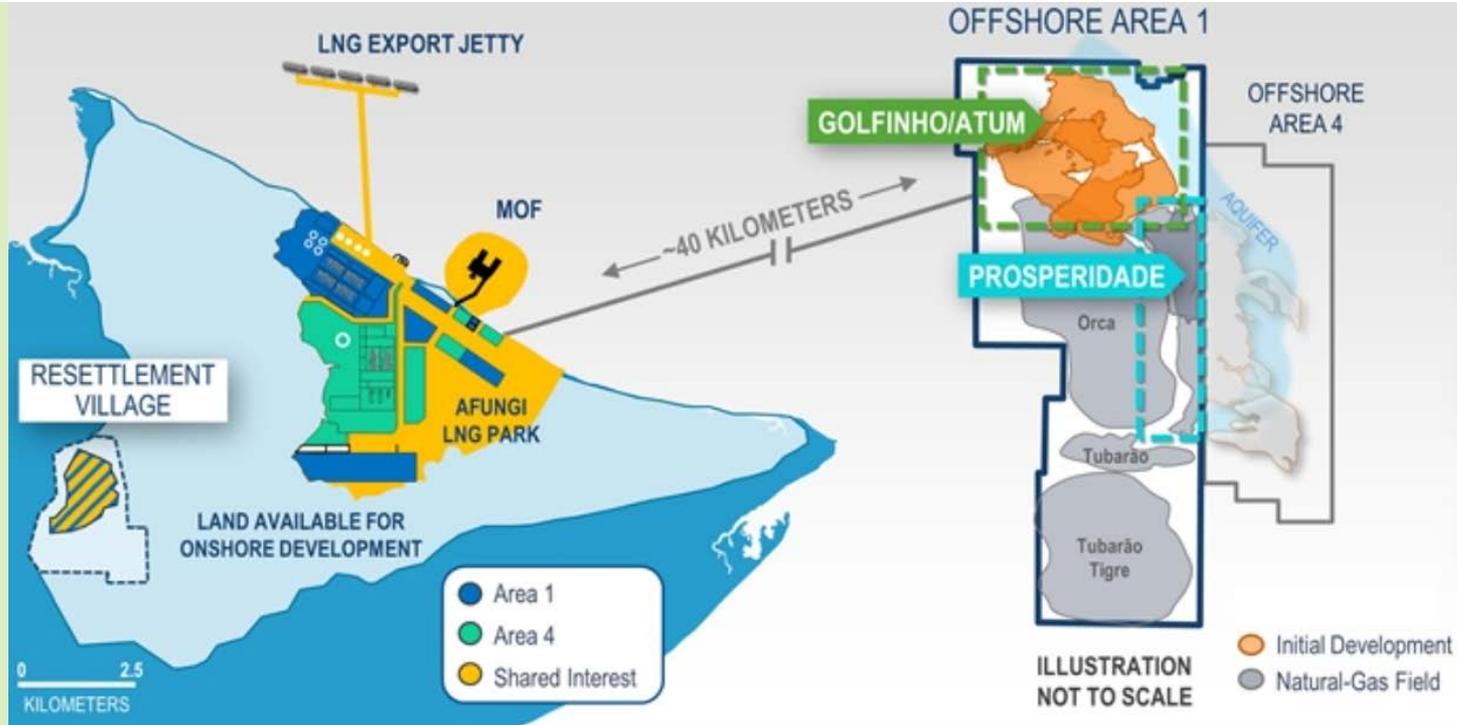


## Ownership

- Anadarko
- ONGC/Oil India
- Bharat
- Mitsui E&P
- ENH
- PTTEP



# Development Overview



# Artist's Rendering

- ◆ **LNG Production Volume :**  
12 million tons / annum  
(2 trains)
- ◆ **LNG Storage Capacity :**  
360,000 m<sup>3</sup> (2 tanks)
- ◆ **Total Development Costs :**  
Approx. US\$ 23 billion
- ◆ **Production Start :**  
CY 2024

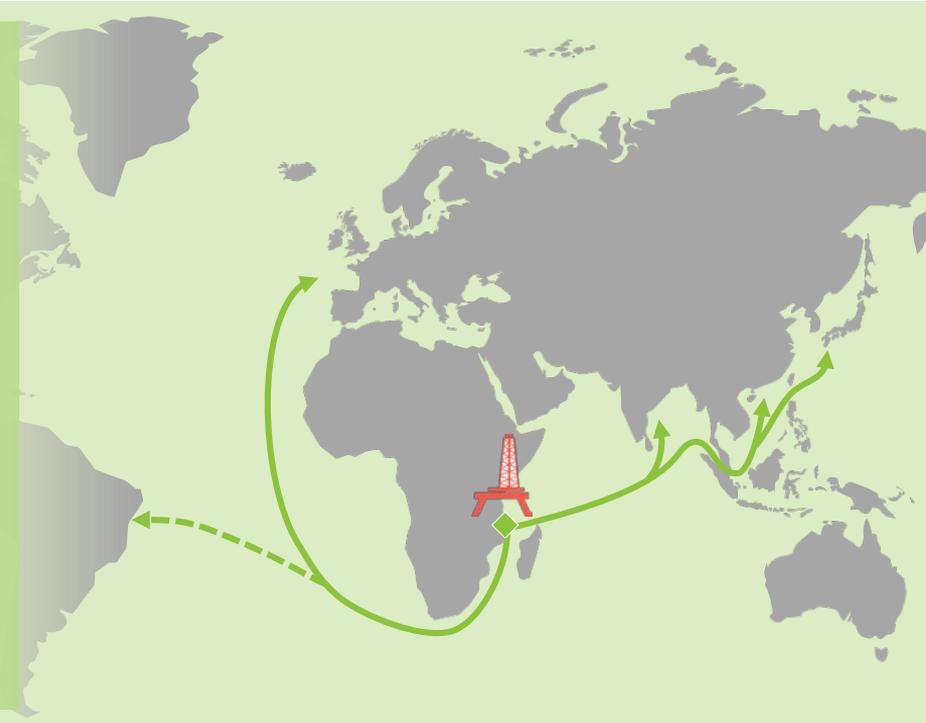


# Features

- ◆ One of the world's largest natural gas reserves (75 trillion cubic feet)
- ◆ Located in East Africa, a new supply source
- ◆ Strategic location provides access to markets in the Far East, Asia, Europe, Central and South America, and others
- ◆ Strong support from the Mozambique government

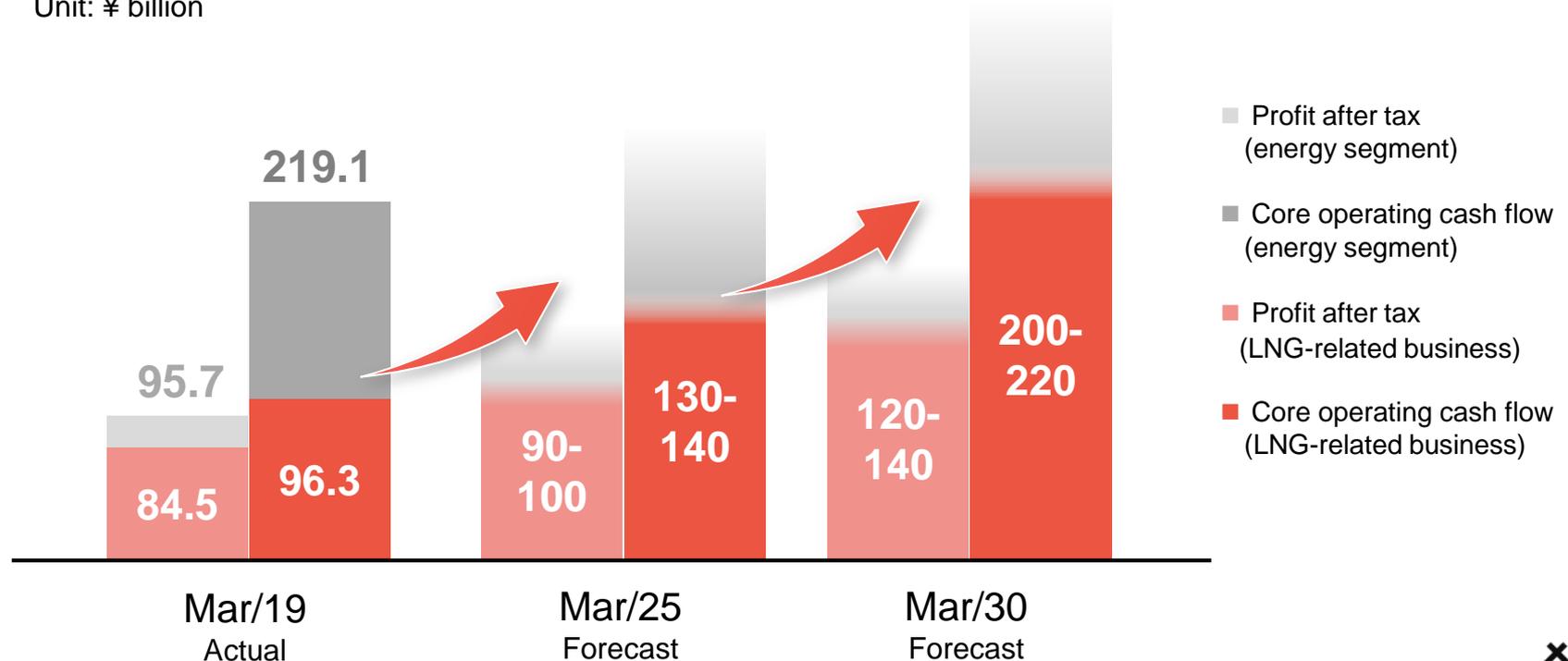
LNG sales destination	Annual sales volume (million tons)
Tokyo Gas & Centrica	260
Shell	200
JERA & CPC	160
CNOOC	150
EdF	120
Bharat	100
Pertamina	100
Tohoku Electric Power	28

Total of over  
**11m** tons



# Quantitative Forecast

Unit: ¥ billion



360° business innovation.



MITSUI & CO.