

# Outlook of natural gas utilization in Russia

**Kazumasa Miyazawa**  
General Manager, Natural Gas Div. IV  
Energy Business Unit II  
Mitsui & Co., Ltd.



The Eighth Japan-Russia Energy and Environment Dialogue in Niigata  
Nov 4<sup>th</sup>, 2015

## Agenda

1. Potential of Russian Far East
2. Sakhalin II Project
  - Project Overview -
  - Project History -
3. New LNG Projects in Russian Far East

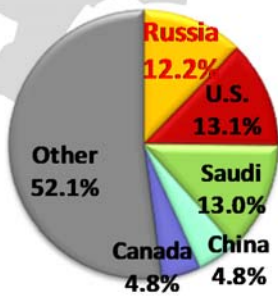
# 1. Potential of Russian Far East

## Proven Reserves as of 2014

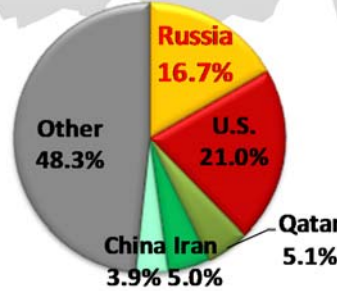
Source : BP Statistics, EIA, IEA, OECD/NEA



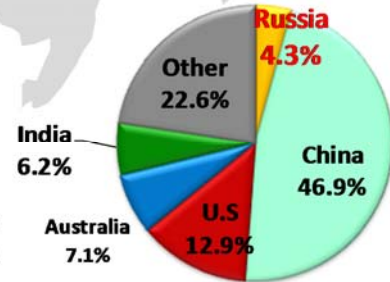
**Oil Production**  
Year 2014: 10.8 mil bbl/d



**Gas Production**  
Year 2014 : 20.4TCF



**Coal Production**  
Year 2014: 351.4mil tons



- ✓ With its vast resources, Russia is a key player in the global energy market.
- ✓ We recognize that development of offshore/Far East region and access to growing Asian energy market are Russia's key challenges.

Copyright © MITSUI & CO.,LTD. All rights Reserved.

\*As of 2013

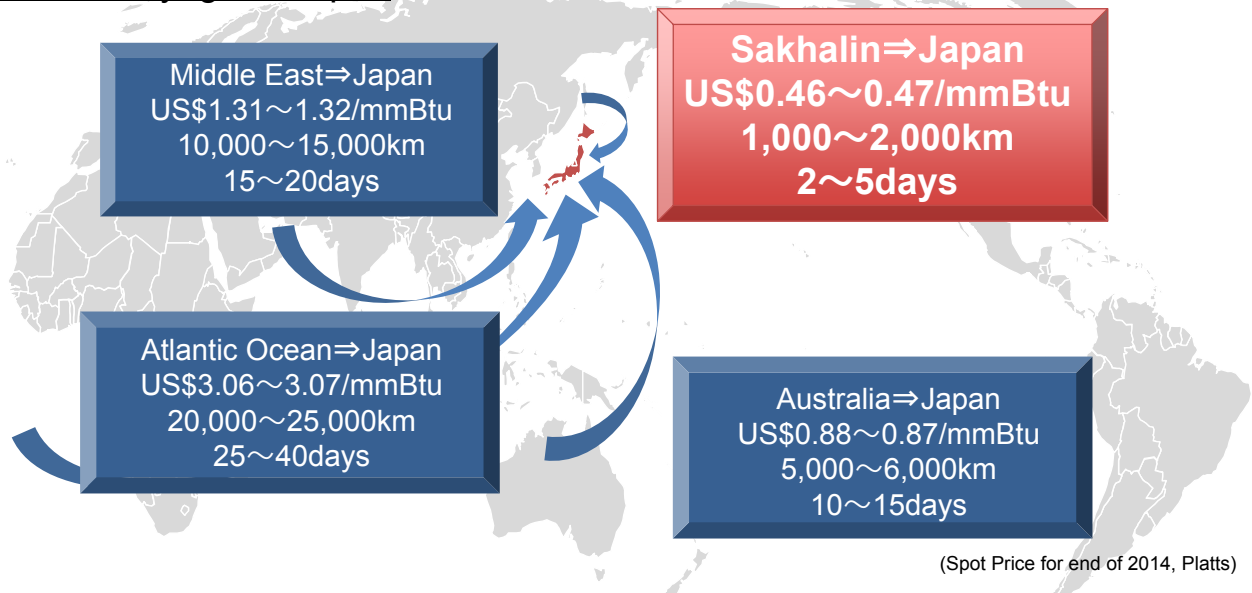


MITSUI & CO.

# 1. Potential of Russian Far East

## Average LNG freight rate and distance/voyage to Japan

※mmBtu=Million British Thermal Unit  
1mmBtu≒19 kg



(Spot Price for end of 2014, Platts)

The Russian Far East is geographically close to Japan.

Copyright © MITSUI & CO.,LTD. All rights Reserved.



MITSUI & CO.

## 2. Sakhalin II Project

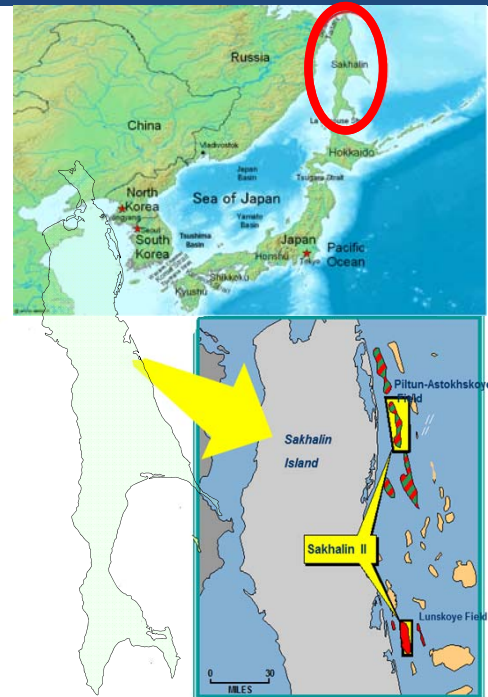
### - Project Overview -

- Operating Company  
Sakhalin Energy Investment Company Ltd.
- Shareholder

Gazprom	50.0% + 1 share
Shell	27.5% - 1 share
<b>Mitsui &amp; Co.</b>	<b>12.5%</b>
Mitsubishi Corp.	10.0%
- Start of Production

Crude Oil	1999
LNG	2009
- LNG Production Capacity  
9.6 mil MT per annum (4.8 mil MT x 2 train)
- Actual Production (Year 2013)

Crude Oil	42 mil bbl
LNG	11 mil MT



**The first LNG project in Russia**  
**The first offshore development in Russia**

Copyright © MITSUI & CO., LTD. All rights Reserved.



## 2. Sakhalin II Project

### - Project History -

Oil shocks in the '70s ⇒ Need for diversifying energy supply sources

- 1984 : FSU government discovered oil/gas prospects offshore Sakhalin
- 1986 : Mitsui & McDermott commenced a joint feasibility study (FS)
- 1991 : FSU government announced international tender for FS of 2 fields (Piltun-Astokh, Lunskeye)  
Mitsui/Marathon/McDermott formed consortium
- 1992 : **Mitsui/Marathon/McDermott concluded FS agreement with Russian Government**  
Shell (Sep) and Mitsubishi (Dec) also joined and a 5 company consortium was formed (then Sakhalin Energy [SE] was established)
- 1994 : **Russian Government and SE concluded Sakhalin II PSA**

- ◆ With newly joined partners, Mitsui developed project framework in order to realize/commercialize Sakhalin II
- ◆ Mitsui carried out groundwork with Russian Government in order to conclude the first PSA in Russia



## 2. Sakhalin II Project

### - Project History -

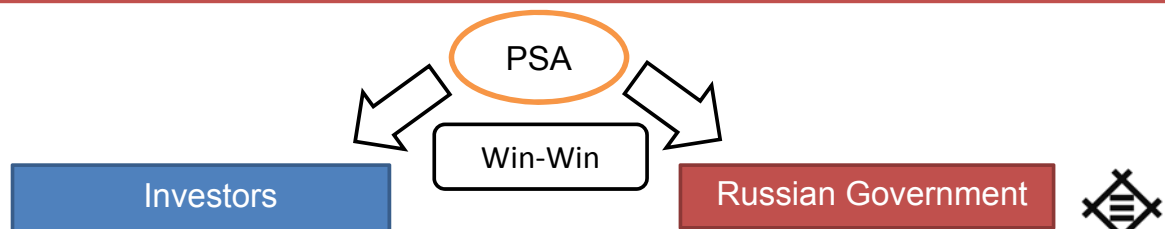
#### ◆ Meaning of Production Sharing Agreement(PSA)

##### Foreign Investors

- PSA provides solid legal basis for sound investment environment and adequate return for the risk of oil and gas development.

##### Russian Government

- PSA attracts the foreign investors, which could bring technologies, finances and other necessary capabilities in order to enhance production of oil and gas in Russia.



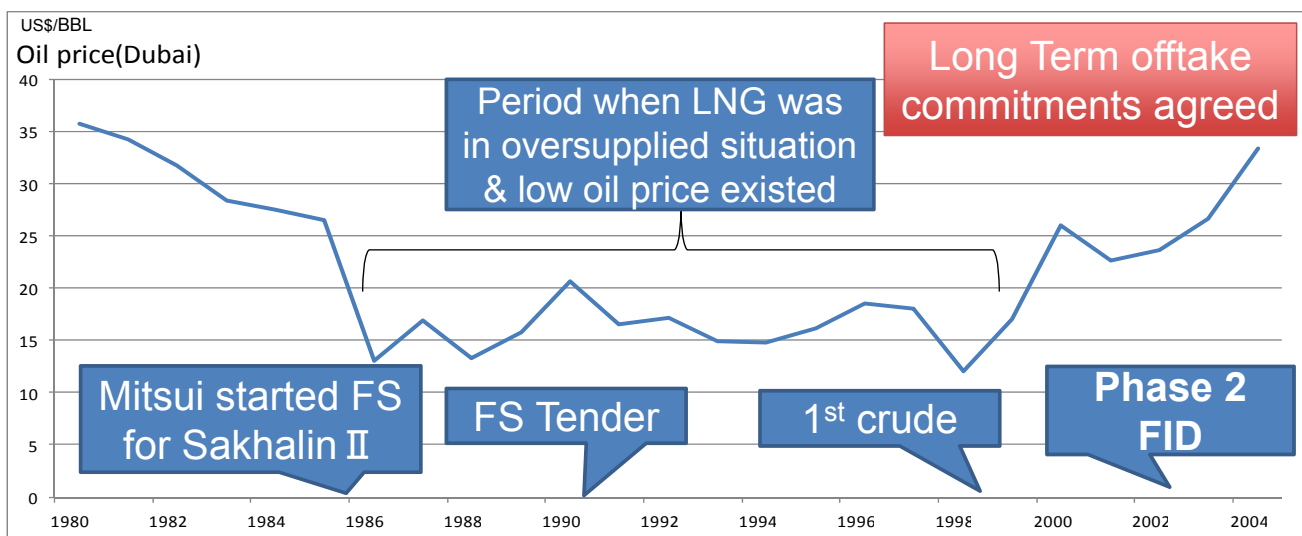
Copyright © MITSUI & CO.,LTD. All rights Reserved.



## 2. Sakhalin II Project

### - Project History -

#### Final Investment Decision (FID) of Sakhalin II Phase 2



Reference : IMF - Primary Commodity Prices

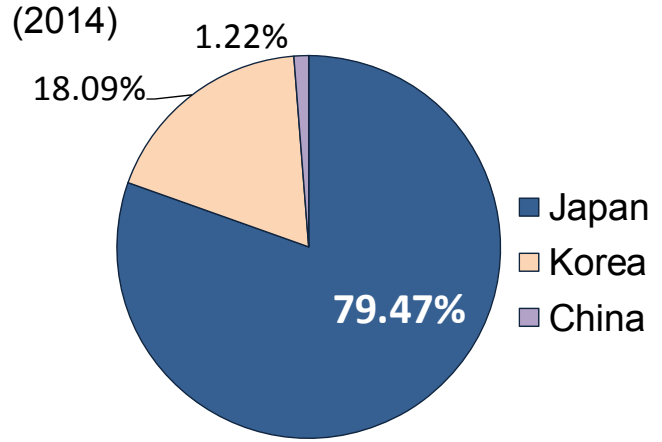
Copyright © MITSUI & CO.,LTD. All rights Reserved.



# 2. Sakhalin II Project

## - Project Overview -

### Project Significance for Russia and Far East Asia



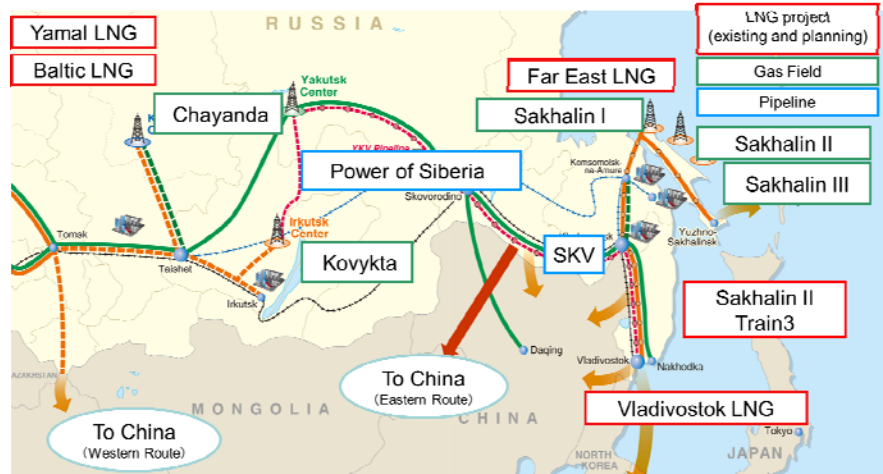
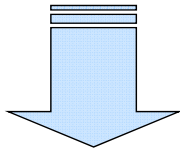
Source: Sakhalin Energy Corporate Website

- ✓ Stable supply of LNG from Sakhalin II remains important for Japan and Korea.
- ✓ Support from the Russian Government is strong.



# 3. New LNG Projects in Russian Far East

Need for Far East Regional Development for Russia

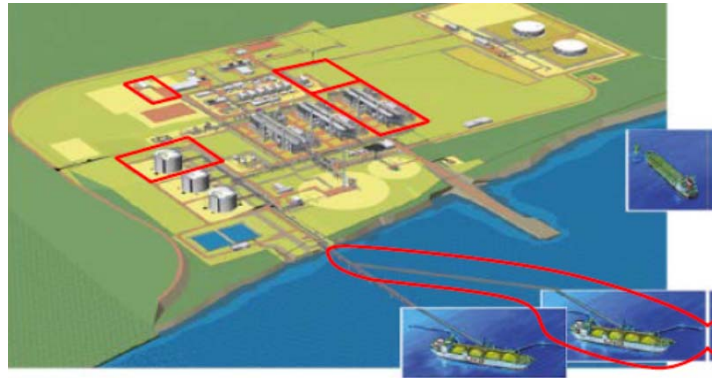


- Securing stable energy supply source with proximity
- Diversifying energy supply sources to Pacific region countries
- Contribution to the economic development of Russian Far East



## 3. New LNG Projects in Russian Far East

### Sakhalin II Train 3



#### Advantages:

- ✓ Cost competitiveness. Use of existing facilities, adoption of the same design as those of Train 1 & 2.
- ✓ Utilizing the knowledge acquired from the experience of Train 1 & 2 constructions.
- ✓ Track record of Train 1 & 2. Trust from stakeholders (LNG buyers, lenders, etc.)

Mitsui continues to support stable supply of Sakhalin 2 LNG, including the Train 3 expansion and hopes to create new business in Russian Far East.



360° business innovation.



MITSUI & CO.