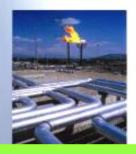
etter energy better world better energy better world

better energy better world



Cooperation on Gas Industry between Russia and Korea

Dec. 17, 2004





- I. Korean Gas Market
- II. Cooperation Projects between Russia and Korea
- III. Stronger Cooperation in the Future



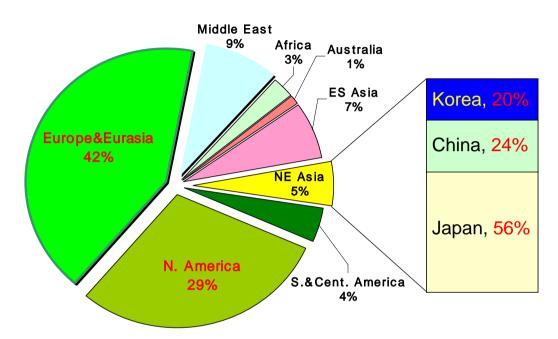
Natural Gas Consumption

World Total : 2591 bcm

NE Asia Total : 136 bcm

- Korea : 26.9 bcm- Japan : 76.5 bcm- China : 32.8 bcm

* Russia : 405.8 bcm



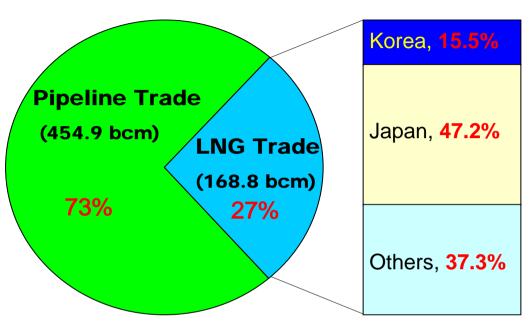
Source: bp 2004 Statistical Review of World Energy

- 🔵 Korean Natural Gas Demand: 20% of NE Asia's
- Annual Increase of Korean Natural Gas Demand('01~'25): about 3.9%
- Prospect of Korean Natural Gas Demand in 2025 : about 50 bcm



Natural Gas Import

- World Trade : 623.7 bcm
 by Pipeline : 454.9 bcm
 - by LNG : 168.8 bcm
- NE Asia Total : 106 bcm
 - Korea : 26.2 bcm Japan : 79.8 bcm
 - China : bcm



Source: bp 2004 Statistical Review of World Energy

- Korea is the 6th largest Natural Gas Importing Country.
- Korean LNG Import covers about 16% of World LNG Trade.



Natural Gas Import & Supply Facilities

- **LNG Based Supply System**
 - 3 terminals and 2,500 km national grid
- **Two Options for Importation**
 - LNG or Pipelined Natural Gas(PNG)
- Intention to Implement PNG Project
 - diversification and security of energy sources

KOGAS Facilities Pipeline + LNG Receiving Terminal





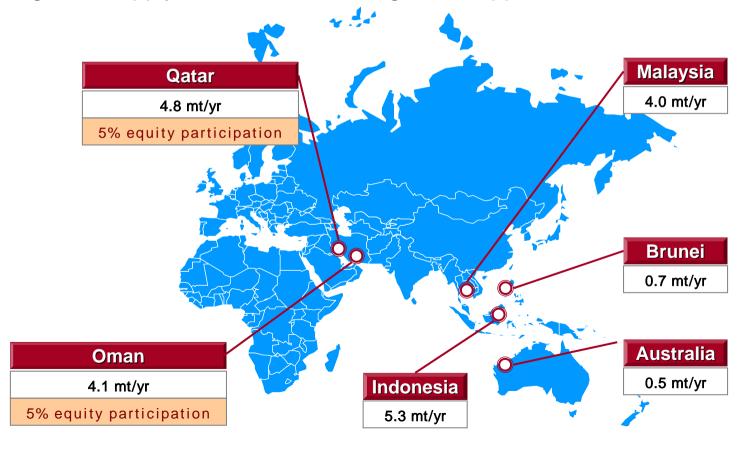




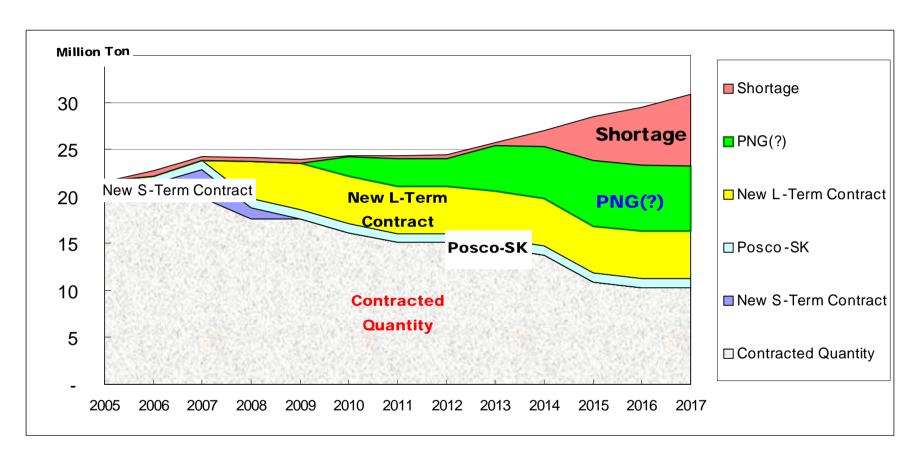


Natural Gas Importing Sources

Long-term supply contracts with nine global suppliers in six countries







KOGAS is under Negotiation on the New Long-Term LNG Contract

- This Contract will cover the required quantity, 550 mmtpa, after 2008.
- Additional Long-Term Contract is necessary for the shortage after 2010.



KOGAS Policy to Import Natural Gas

Diversification of Supply Sources

Security of Stable Long Term Supply

- Competitiveness against Alternative Sources
 - Price & Flexibility of Supply Conditions

Joint Investments for Mutual Benefits



2. Cooperation Project

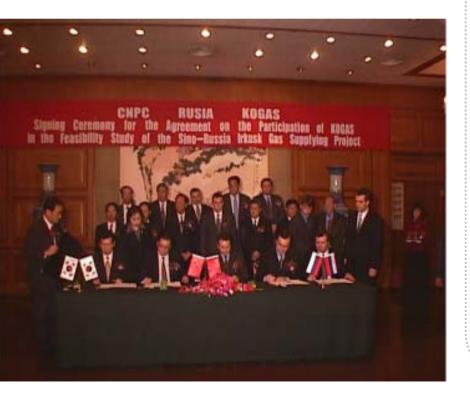


Irkutsk PNG Project









🔵 <u>Major Milestones & Status</u>

Nov. '00 : An Agreement

Nov. '03 : IFS Completion

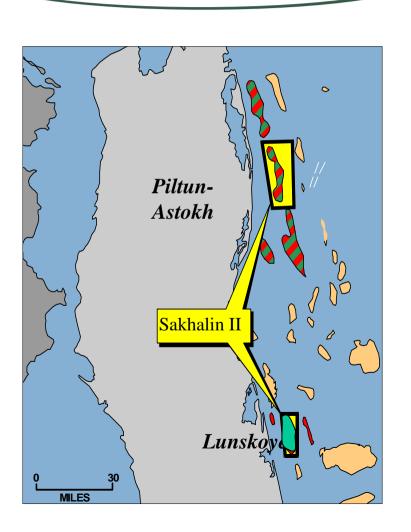
The target delivery was 2008.

- Chinese and Korean Government are in a positive position to approve the IFS Report after Russian Government's Approval.
- Russian Government is under review on the IFS report and stated that "official announcement on this project will be made at the end of this year."

2. Cooperation Project



Sakhaline-2 LNG Project



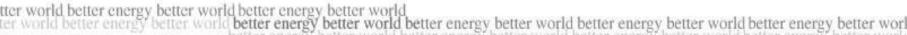
Major Milestones & Status

- Aug. '04 : ITB Issued
- Sep. '04 : SEIC Joined at Bidding
 - * SEIC : Sakhalin Energy Investment Company
- SEIC is considered as one of the prospective suppliers for the required natural gas demand after 2008.
 - It is under Negotiation Stage.
- If the bidding is finished successfully for SEIC, it will be the first gas cooperation project between Russia and Korea.

etter energy better world better energy bett

better energy KOGAS





Way Forwards to Implement Projects



No Cross Border Infrastructure

- Long Distance from the Fields to Market and Huge Investment Cost
- No Experience for Cross-Border Project



Requirement of a Large Scale Export Volume

- Multi-lateral Cooperation to Secure a Stable Market



Development of Sustainable Engine to implement Joint projects

- Strong Government Support
- Harmonization between Supplier and Importers

Possible Roles of KOGAS



Advanced Gas Market to develop the Gas Fields

Joint Preparation of the Comprehensive Program to realize the Projects

■ **Joint Investment** with Russian Partners for Potential Projects

KOGAS is ready to cooperate with Russian Partners to implement the Joint Statement agreed in the Summit meeting held on Sept. 21, 2004.

Stronger Cooperation Relation



Between Russian Gov' and Korean Gov'

- Conclude the Gas Cooperation Agreement as soon as possible
 - * It was agreed last Sept. that the Agreement will be concluded in the near future.
- Activate the Committee for Energy and Natural Resources

Between

KOGAS and Gazprom

- Activate the Cooperation Partnership between two companies based on the existing Agreement
- Strengthen the Gas Cooperation as the Authorized Companies in the Agreement between two countries

Between

KOGAS and Russian Energy Companies

- Exchange the Energy related Information
- Develop the Cooperation Programs on Gas Projects and Related Businesses

- ✓ Strengthen the Gas Cooperation between Russia and Korea
- ✓ Facilitate the Successful Gas Trade between two countries



Thank You!!!