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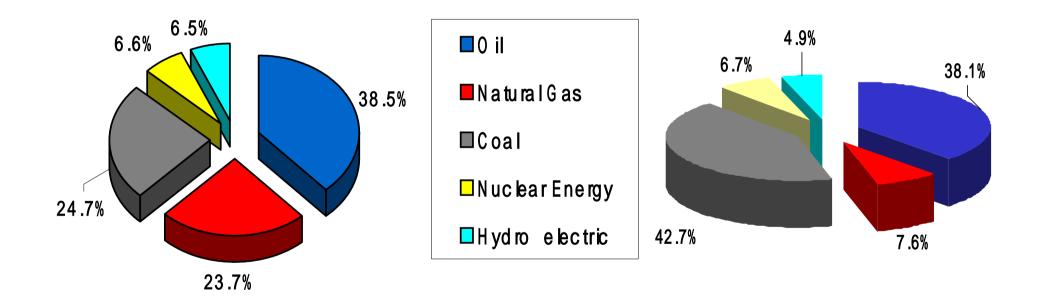
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Incheon LNG terminal

Status of Primary Energy Consumption



Primary Energy Consumption in 2002



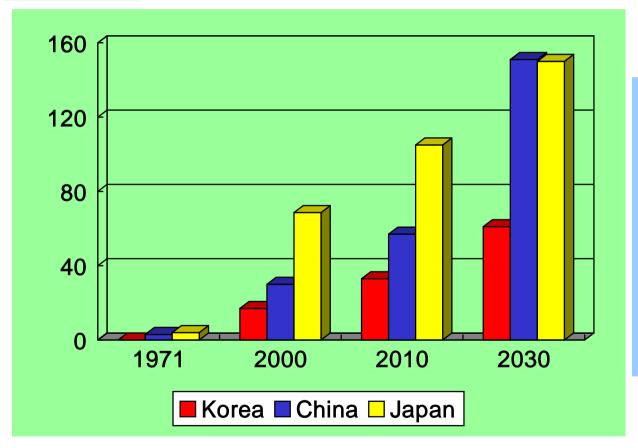
World North-East Asia

Natural Gas Consumption Forecast



NE Asian Natural Gas Consumption Projection

(Unit : Mtoe



Average Annual Growth

- Korea: 4.0%

- China: 5.1%

- Japan : 2.5%

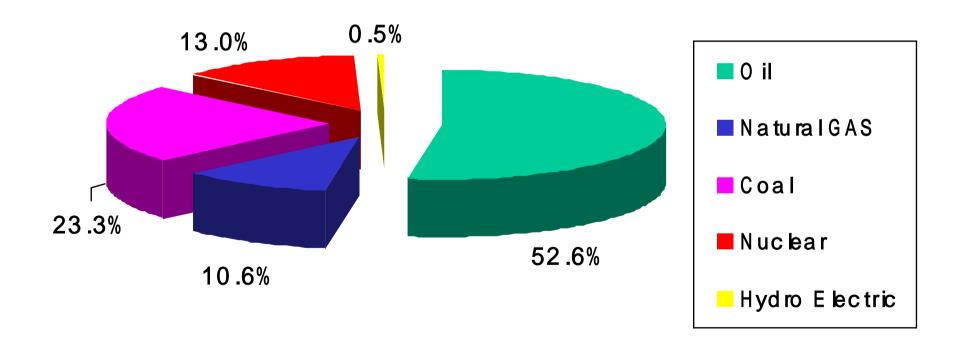
- North-East Asia: 2.8%

^{*} Source : World Energy Outlook 2002, IEA/EIA

Status of Primary Energy Consumption in Korea



Korean Primary Energy Consumption in 2002

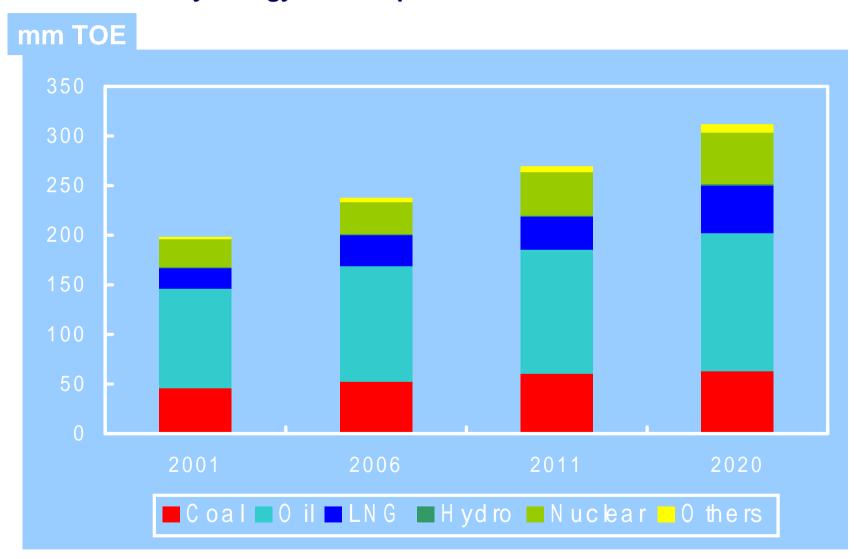


Korea Gas Corporation

Primary Energy Consumption Forecast



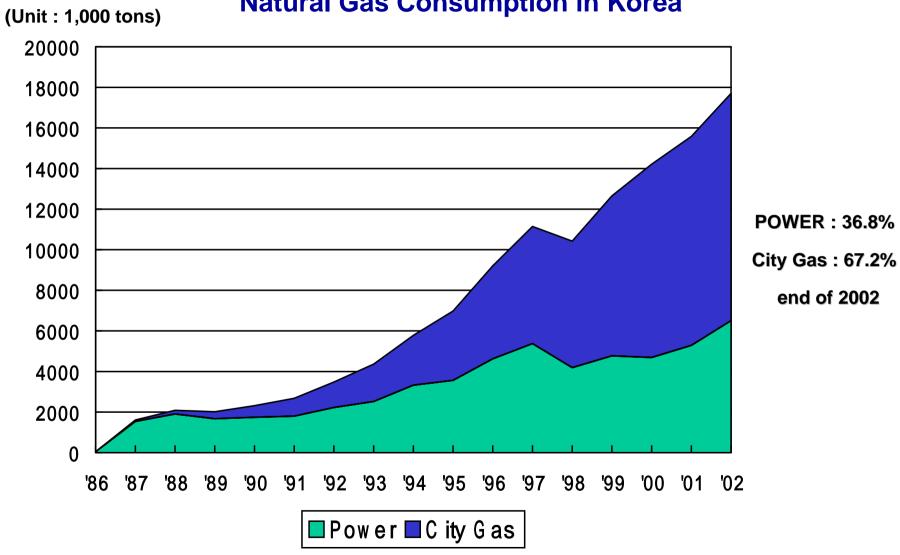
Primary Energy Consumption Forecast in Korea



Status of Natural Gas Consumption



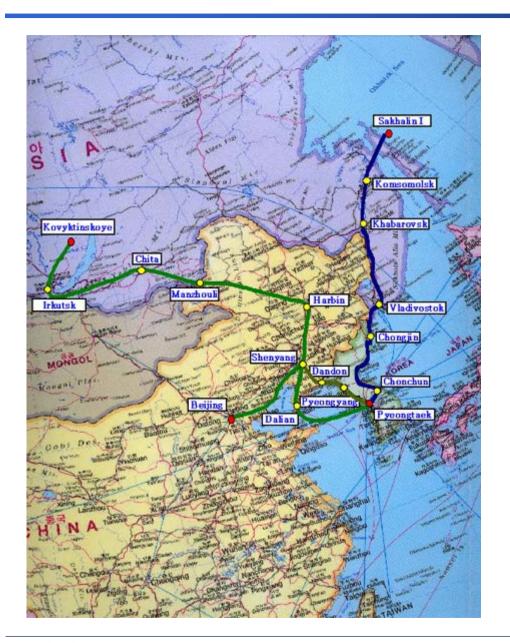




^{*} Source: KOGAS statistical review of management 2002, KOGAS

PNG Projects in NE Asia





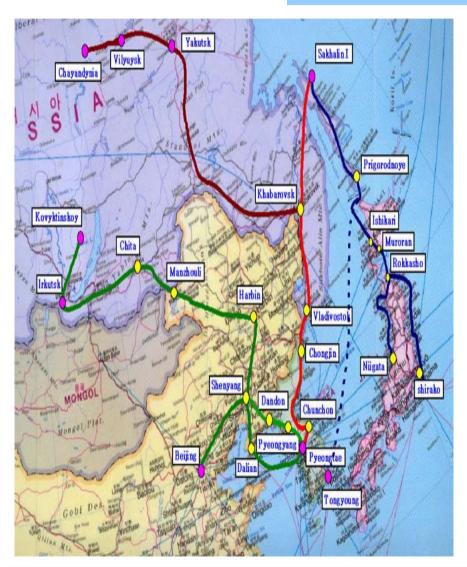
IRKUTSK PNG Project

- ☐ Pipeline route from Russia to China has determined.
 - Kovytka Manzhouli –Harbin Shengyang
- ☐ Pipeline route from China to Korea has two options :
 - Shenyang Dandong –
 Pyeongyang Pyeongtaek
 - 2) Shenyang Dalian –Yellow sea Pyeongtaek
- ☐ IFS Completion
 - ➤ Dec. 2002 : Completion each party's IFS in its own country
 - Mar. 2003 : The summary IFS report of each expert group
 - Oct. 2003 : The comprehensive general IFS report

PNG Projects in NE Asia



Sakhalin Project



- ☐ The nearest gas reserves to NE Asian Gas Market
- Reserves : Oil(700 mil. tons), Gas(2.5 TCM)
- Project Status
 - Sakhalin-1 Project
 - ExxonMobil(30%), SODECO(30%), ONGC(20%), Rosneft(8.5%), SMNG(11.5%)
 - Investment (\$12 Bil), PSA (Jun. 1996)
 - Sakhalin-2 Project
 - Shell(55%), Mitsui(25%), Mitsubishi(20%)
 - Investment (\$10 Bil.), PSA (Jun. 1994)
 - Sakhalin-3 Project
 - ExxonMobil(33.3%), Rosneft&SMNG(33.3%), TexacoChevron (33.3%)
 - Investment (\$10 Bil.), PSA (April 1999)
- Natural Gas Transportation (2 options)
 - PNG : Sakhalin-Khabarovsk-North Korea (about 2,362km Length)
 - LNG: LNG Terminal in in Prigorodnoye (about 2.5 days of LNG carrier voyage)

PNG Projects in NE Asia



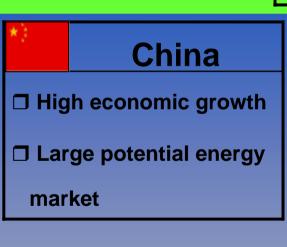


Sakha Project

- ☐PFS in 1994 by Korean consortium & Russia
- Not economically viable to
 - The lack of infra-structure
 - The construction of pipeline through permafrost area
 - The large initial delivery volume of gas due to high development cost

Energy Status in North East Asia





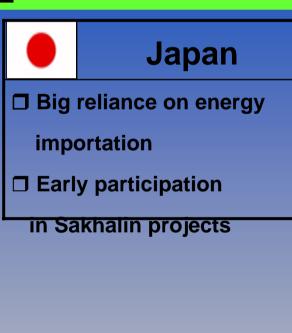


☐ Big reliance on energy

☐ Diversifying energy supply

importation

sources



Obstacles to Energy Cooperation



- Instability in Politics & Economy
- Existence of diplomatic & military conflict
- Difference in economic & political system
- Incapability for raising finance of a large scale

Conclusion



- Diversifying energy supply sources
- Developing energy transportation infrastructure
- Accelerating development of natural gas industry & natural gas market
- Strengthening cooperation among NE Asian countries

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Thank you!

