Towards a Northeast Asian Energy Partnership

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Oil Production 2001
Oil Reserve as of 2001

Middle East OPEC: 69%
Other OPEC: 14%
Former USSR: 7%
US: 3%
China: 2%
Other non OPEC: 5%

Energy Consumption 1990, 2000

Sources: IEEJ "Handbook of Energy & Economic Statistics in Japan"
Energy Consumption / GDP

- **Japan**: 0 toe/M US $, 0 toe/M US $ (1990, 2000)
- **China**: 1,600 toe/M US $, 1,400 toe/M US $ (1990, 2000)
- **ROK**: 400 toe/M US $, 300 toe/M US $ (1990, 2000)
- **Russia**: 1,800 toe/M US $, 1,600 toe/M US $ (1990, 2000)
- **USA**: 1,200 toe/M US $, 1,000 toe/M US $ (1990, 2000)

Sources: IEEJ “Handbook of Energy & Economic Statistics in Japan”

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CO₂ Emission 2000

- **Japan**: 200 Mt-C
- **China**: 800 Mt-C
- **ROK**: 100 Mt-C
- **Russia**: 400 Mt-C
- **USA**: 1,800 Mt-C

Sources: IEEJ “Handbook of Energy & Economic Statistics in Japan”
**CO₂ Control measures (1)**

**Supply Side**
- Increased use of non-fossil energy sources
  - Increased use of nuclear and natural gas for power generation
  - Increased use of renewable energy for power generation
  - Efficiency improvement of thermal power generation
  - Reduction of transmission and distribution line losses

**Improved efficiency of power facilities**
- Hydroelectric, geothermal, solar, wind power generation
- Combined cycle power generation and high-efficiency coal thermal power generation
- High-voltage transmission

**需求侧**
- Energy conservation
  - PR activities aimed at energy conservation
  - Development and diffusion of highly efficient energy-saving appliances
  - Enhanced utilization of untapped energy sources
- Load leveling
  - Promotion of load management
  - Heat recovery from river water, waste incineration facilities and substations
  - Regenerative heat pumps
  - New Tariff Systems
Common Concerns among NEA Countries (1)

The Importance and Necessity of

1. Stable energy markets
   → reduced volatility in oil markets
   → long-term contracts of natural gas
   → security of energy supplies (infrastructures)

2. Reliable energy trading partners

3. Reducing the environmental damage from energy usage

Common Concerns among NEA Countries (2)

1. Poor indigenous energy endowment

2. Increasing energy import dependency

3. Too much dependent on Mid-East oil

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How to realize sustainable development in Northeast Asia
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Priorities of the Northeast Asia’s Energy Strategy

1. achieving a balanced energy structure
2. energy savings: supply side and demand side
   - the massive potential for China
3. diversification of energy import markets
   - the use of Siberian and Central Asian gas
4. Introduction of competitive environment in the electricity and gas sector
5. Enhancing the transfer of advanced energy technologies
   - how to finance?

The Energy Dialogue among Northeast Asian Regions : Why?

⇒ Geopolitical Importance
   - Development of Northeast Asian Relations
   - Enlargement of EU and NAFTA
⇒ Energy Security
⇒ Perception of Risk in Investing in Foreign Countries
⇒ Environmental Issues : Local and Global
What the Dialogue is? : A process among equal partners

From : setting out the common interests of Northeast Asia in the energy sector

Through : recognition of the complementariness of the each energy markets

And : identification of the potential seeds for cooperation in the energy field

⇒ to improve energy security and energy efficiency in NEA ⇒ First Step to Energy Community