Toward Establishing Effective Framework for Northeast Asia Energy Cooperation

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I. Energy Issues in NEA(I): Main Problems

- **High increase & huge energy demand in the region**
  - High demand increases in China

- **Increases in energy import dependency from outside of region (ME)**
  - Big energy importers: China, Japan, Korea
  - Russia’s export marker: Still Europe, not yet Asia

- **Limited cross-border energy transportation infrastructure**
  - Neither pipeline nor electricity power grid systems
  - Separated individual energy system for each country in the region

- **Rivalry in energy diplomacy and energy hegemony competition**
  - Conflicts between multilateral vs bilateral relationships

- **Political uncertainty: Territorial disputes; Korean peninsula issue**
I. Energy Issues in NEA(II): Recent Circumstances

- **International Financial Crisis**
  - Russian energy asset value decrease $\Rightarrow$ Financing problems for investment

- **Recent earthquake and tsunami in Japan**
  - Nuclear power generation ↓, then Natural gas ↑
  - Regional energy market demand-supply becomes unstable

- **Shale gas revolution in the US**
  - LNG export potentials form the US increase
  - Less incentive for gas importers to import Russian gas

- **Korean peninsular security issue**
  - Military conflicts and Nuclear issue in North Korea
II. Main Necessities of NEA Energy Cooperation (I)

- **Improve Energy Security**
  - Diversification of energy resources and import sources
  - Higher emergency preparedness to external shocks
  - Integrated energy infrastructure and energy storage
  - Lowering negotiation costs by purchase alliance
  - Partnership of overseas energy development projects

- **Reduction of Political Tension and Enhancement of Regional Stability**
  - Improve the political conflict through promoting of regional energy projects and economic-interest-first approach
  - Reconciling economic interest and political interest
  - Easing military tension through more affordable energy access
II. Main Necessities of NEA Energy Cooperation (II)

- **Expand Scale of Energy Industry**
  - Expand development scale of resources through effective technology transfer
  - Create and specialize new business activities in energy projects as new economic-growth-machine in the region

- **Establish New Oil & Gas Market**
  - Secure a stable oil and gas demand
  - Exploit and export oil/gas resources from East Siberia & Far East
  - Spill-over effects from expanded energy markets
  - Provide initial momentum to the future regional economic integration
III. Impediments to NEA Energy Cooperation

- **Economic Impediments**
  - Differences in national policy focus, legal and institutional system
  - Heterogeneous economic system and energy market
  - Uncertainty in investment and market conditions in transitional economies: Huge initial investment requisition

- **Political and Institutional Impediments**
  - Contentious relations among the NEA countries & Inter-Korean tension
  - Lack of mutual trust among the countries
  - Lack of leadership and political commitment
IV. Potential NEA Energy Cooperation Projects (I)

**Petroleum**

- Projects
  - Joint strategic oil stockpiling
  - FTA for oil products
  - Sharing refinery/upgrading facilities
  - Sea-lane transportation security for crude oil

- Benefits
  - Enhancing energy security capability
  - Reducing investment requirements
  - Improving regional oil market efficiency

*NEA Common Oil Market in the Long Run*
IV. Potential NEA Energy Cooperation Projects (II)

- **Natural Gas**
  - Projects
    - Development of natural gas field in Russian East Siberia and Far East: Irkutsk, Yakutia, Sakhalin, Krasnoyarsk
    - Construction of cross-border pipeline networks
  - Benefits
    - Diversification of energy sources (from coal and petroleum)
    - Establishment of environmentally friendly energy system

- Integrated Oil & Gas Regional Supply System in NEA
Gas Pipeline Network in Northeast Asia

- Proposed & existing gas pipeline
- Possible future gas pipeline
- LNG export
- Gas production centre
- Possible future gas centre
- LNG Export Terminal

The map shows the gas pipeline network connecting Russia, Japan, Korea, and China, with key cities and production centres highlighted.
IV. Potential NEA Energy Cooperation Projects (III)

- **Electricity**
  - Projects
    - Development of power plants: Hydro in Russian Far East
    - Cross-border power interconnection grids:
      - < ROK-DPRK-ROK>, < Russia - Japan >
      - < Russia - China - DPRK – ROK - Japan >
    - Joint storage of spent fuels: Nuclear
  
- Benefits
  - Resolving plant siting problem: Korea, Japan
  - Efficient power production/supply system

- Integrated Regional Power Grid System in NEA
V. Energy Cooperation Framework in NEA(I)

- **Main Economic Principles of the Framework**
  - Recognition of sovereign rights of the Member States
  - Development of free and fair trade
  - Market-oriented investment promotion & protection
  - Improve environmental protection
  - Addressing special needs and collaboration in emergencies

- **Voluntary and Non-binding Participation**
  - Induce all six NEA countries’ participation
  - Develop incentive mechanism for all NEA countries

- **Open Regionalism to Non-NEA**
  - Induce some interests from US, EU, Energy Organization
  - Avoid international isolation and conflict with WTO
V. Energy Cooperation Framework in NEA(II)

- Intergovernmental Collaborative Mechanism (UN/ESCAP)
  - DPRK, Mongolia, ROK and Russia (members); China (observer); Japan (reluctant to join)
  - SOC constitutes the leading decision-making and governing body
  - Pursue the coordination of energy security policies and legislation of the countries in Northeast Asia by 2020
  - 1st SOC Meeting (2005. 11, Ulaanbaatar), 2nd(Khabarovsk, Russia), 3rd(Jeju, ROK)… 7th (Gyeongju, ROK), 8th (2012. 12, Ulaanbaatar)
  - WG-Coal (2010-12): NEA Coal Industry Report
V. Energy Cooperation Framework in NEA(III)

- **Intergovernmental Collaborative Mechanism 2020 Vision:**
  - Increase the supply of energy in NEA, reducing dependence on energy imports from outside the region;
  - Optimise the economy and efficiency of the supply and use of energy
  - Minimise the environmental impact through an improved energy mix

- **Main Roles of the NEA Energy Cooperation Framework:**
  - Establish communication channel for coordinating cooperation activity
  - Reconcile mutual competition among big energy consumer countries
  - Develop cross-border trading infrastructure more smoothly by identifying reciprocal benefits
VI. Creation of NEA Energy Cooperation Environment

❖ **Short-term Measures**
  - Establish policy dialogue channel between governments
  - Encourage business dialogue and participation
  - Develop information exchange and sharing mechanism
  - Promote joint research for effective implementation of cooperation projects
  - Enlarge capacity building projects

❖ **Long-term Measures**
  - Creation of institutionalized frameworks for multilateral regional energy cooperation: Energy Charter, Regional Energy Community
  - Introduction of policy coordination functions: Institutional arrangement
  - Address on the intra-regional financing mechanism establishment