



Asian Energy Issues – how to enhance security

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1 Objectives of National Energy Policy Today

- To secure national energy supply to meet domestic demand, in consideration of international energy resource imbalance
- To achieve global sustainable development (Energy, Environment and Economy are closely inter-related)



2 IEA/IEP (International Energy Agency/Program created in 1974) and its objectives & achievements

- To maintain and improve systems for coping with oil supply disruptions
- (Obligation to keep emergency oil stocks equivalent to at least 90 days of net daily oil imports, in order to jointly respond to oil supply emergencies or disruption)
- To diversify energy supply sources and develop alternative energies
- (Building best mix of energy supply and demand structure)



- To pursue environmentally acceptable/sound energy supply/ demand policies and activities
- Coordinate energy policies through review process among member countries
- To watch, get information on, and analyze, oil market
- To maintain dialogue between oil consuming countries and oil producing countries
- To reach out to non member consuming countries
- To encourage R&D activities in energy sector



3 Japan's experiences in promoting energy policy

*Increased emergency oil reserves in both private and public sectors

(From less than 60 days stock to more than 170 days stock)

* Changed the structure of energy supply and demand

(Shifted from oil-dependent to alternative energies: oil share dropped from 77% in 1973 to 50% in 2002 but increased dependency on Middle East)

*Intensified energy saving efforts

- Energy Saving Law: some 40% of improvement in the unit of IIP, during 40years, Law for Promotion of Effective Utilization of Resources: designation of 10 industries and 69 items, 50% of coverage of wasted materials •



*Trying to build circular economy and society

(Basic Law for Promoting the Creation of a Recycling-Oriented Society, its basic plan and implementing laws: recycling of containers and package, home appliance, construction materials, vehicles, etc.)

(Material flow improvement targets during 2000 to 2010: 40% in resource productivity, 40% in recycling rates and 50% in final disposal.)

*Exerting efforts to pursue sustainable development

- Basic Law on the Environment and its basic plan •

*R&D activities in energy sector

*Others including international cooperation



4 Recommendation for China's sustainable development by 3E project

*Energy saving efforts through policy intensification and industry activities

(Huge potential for energy saving in various sectors)

*Improvement of energy demand and supply structure

(Less dependency on coal, which is one of the reasons of China's low energy efficiency and environmental deterioration, and growth of alternative energy to replace fossil energies)

*Clean coal use in power generations and other key areas employing Clean Coal Technologies (CCT) such as desulphurization equipment

*Enhance energy security on oil by building emergency oil stock, increasing efforts to self-develop oil import sources, and promoting cooperation with Asian and other countries



- *Improve and establish public transport system and clean motorization

- *Intensify environmental monitoring and regulation

- *Regulatory reform to fully reflect energy and environmental costs, by using market mechanisms or regulatory measures, where appropriate

- *To create the formula for circular economy and society at the present development stage through master planning and necessary legislation and to establish the role of producers, consumers, local society, regional governments and central government in this formula

- *Cooperation in businesses and policy-making by foreign industries and countries



5 The situation in Asian countries

Increase in energy demand reflecting GDP growth and motorization especially in China and India

Increase in oil and gas import

Therefore increase in dependency on imported oil from Middle East and gas



(1) Facts and figures

*Supply and demand situation

(*Primary energy consumption)

(Oil, coal, gas and others)

(Final energy consumption)

(Power generation)

(CO2 emissions)

(Motorization)

(Oil and gas supply and demand)

(Non-commercial energy)



(2) Implications and Issues to address

- *Need to make efforts to pursue strong and appropriate energy policy
- * Need huge investment for the development of energy supply and infrastructure
- *Environmental challenge
- *Energy import and energy security
- *Improvement of domestic energy market and regulatory reform
- *International and regional cooperation



6 Common energy policies in EU

The formation of EU originated from energy related fields such as coal, steel and nuclear. (ECSC & URATOM)

Rome treaty did not address any energy policy goal.

EU achievements in energy fields have been rather poor in comparison to other fields of common policies such as agriculture, regional development, money/finance and so on.



The focus of developing common energy policies are the following three main issues now:

- (1) To ensure energy security reflecting growing external dependence on oil and natural gas
- (2) To facilitate closer integration of energy markets for improving industrial competitiveness



(3) To implement energy policies compatible to environment.


More concretely

- *Guarantee stable and economical energy supplies
- *Encourage energy saving policies
- *Encourage investment in renewable energies
(Agreed on a strategy for doubling the use of renewable energies from a current 6% to 12% by 2010)
- *International policy to secure oil from Middle East and gas from Russia
(EU as a signatory of European Energy Charter is promoting a dialogue with Russia and the Mediterranean countries.)
- *Liberalize European energy markets in particular for the gas and electricity sectors
- *Improve competition within the energy sector
- *Produce energy in compatibility with environmental protection, especially by decreasing CO₂ emissions



7 • Lessons to Asia from above experiences (Issues)

- Asia is less homogeneous than EU regions, consisted of:
 - *China and India type (Large increase in demand)
 - *Japan and Korea Type (Reaching maturity in demand with high dependency on energy imports)
 - *Indonesia and Malaysia type (Increase in demand with less self sufficiency)
 - *Others' type

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- Need to build consensus on energy field as the first step
 - * Exchange of information and experiences in energy situation and policy


 - *Promote cooperation and the transfer of good practices in the region

 - Self-exerted but concerted efforts to build best mix of energy supply/demand structure in accordance with the situation or condition of respective country/economy
 - *Energy Saving

 - * Development of alternative energies

 - *Diversify oil import sources

 - *Prepare for emergency

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- Joint effort to take concerted actions in particular for securing stable supply and responding to emergency or disruption •
 - How to address Asian Premium and Energy Security as a region
 - Dialogue between oil importers and exporters to keep s stable international market
 - Environmentally friendly energy policy to cope with global environmental problem



(Fora)

- * Bi-lateral talk on energy policy and talks and schemes through FTA or EPA
- * Multi-lateral talk such as ASEAN+3, APEC or other forum including India where necessary
- * Dialogue among IEA members and non-members
- * How to coordinate with other international frameworks such as IMO (International Marine Organization)
- * Coordination between national, regional, and international schemes to cope with the global feature of energy issues
- * Possibility to create “Asian Energy Program”

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