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Issues of Energy Policy

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1. Need for Technology Assessment/ Governance

- Technology assessment (TA) refers to institutions and practices which support problem-definition (agenda setting) for the development of technology and society by anticipating societal impacts/ implications of emerging/ re-emerging technologies
- Technology have many implications (benefits economic/ security/ environment, risks, and value related judgments) for society including international dimension- society has to perform an assessment incorporating various implications - framing

cf. Uncertainty over risks (negative impacts) and benefits

cf. Distributive implications

- A wide range of actors has come to be involved as a detector in technology governance, in reaction to the numerous social implications of technology in specific societal contexts need for communication and participation/ involvement in technology gogernance
- Need for distance for opening up scope of discussions as a precondition for decision/ strategy making
 - cf. Relations between science advisor and strategy headquarter

2. Need for Transition Governance

- linkage with demand side measures

- Policy needs to be connected to concrete use communities (sectoral policy network of energy users)
- The transition management tries to utilize innovative bottom-up developments by coordinating different levels (niches, regimes, landscape) of governance and fostering self-organization, generating cycles of learning, giving special attention to co-evolution, where different subsystems are shaping but not determining each other
- Concrete methods and strategies for TM can be different depending on institutional and cultural contexts
- Who will play role as coordinator (ex. for demand response) in decentralized system?
- "Tipping point" in the transition process

cf. Inter-regional grid connection issues for renewable in Japan - grid between Northern part of Japan and Tokyo areas

3. Roles of Policy Instruments- need for synchronization

- R&D funding
- Regulatory support ex. FIT
- Reforming regulations institutional infrastructure
 - cf. safety regulation for decentralized energy
 - cf. nuclear safety regulation
- Importance of "Expectation" in market energy pricing, possibility of regulation
 - Importance of demand side measures
 - Local agreement offshore wind firm, nuclear

4. International Dimensions

Possibilities of regional cooperation: common interests as users and importers - storage/ reserve, sea lane protection (Malacca, Pirates off Somalia), nuclear safety...

cf. role of ERIA and EAS (East Asia Summit)

Security implications of nuclear technology for US- Japan relationship

5. Human Resource Development

- Need for Increased literacy among the stakeholders
 -> priority setting
- Need for technical and institutional (including reguatory) infrastructure
- Need to create and develop global leaders for social design and management
 - Understanding Interdisciplinary implications
 - Participation in practical international projects in global context
 - Management capability with specialized knowledge