



Challenges in Asian Energy Market and the role of Russia

The 9th Japan–Russia Dialogue on Energy & Environment in Niigata

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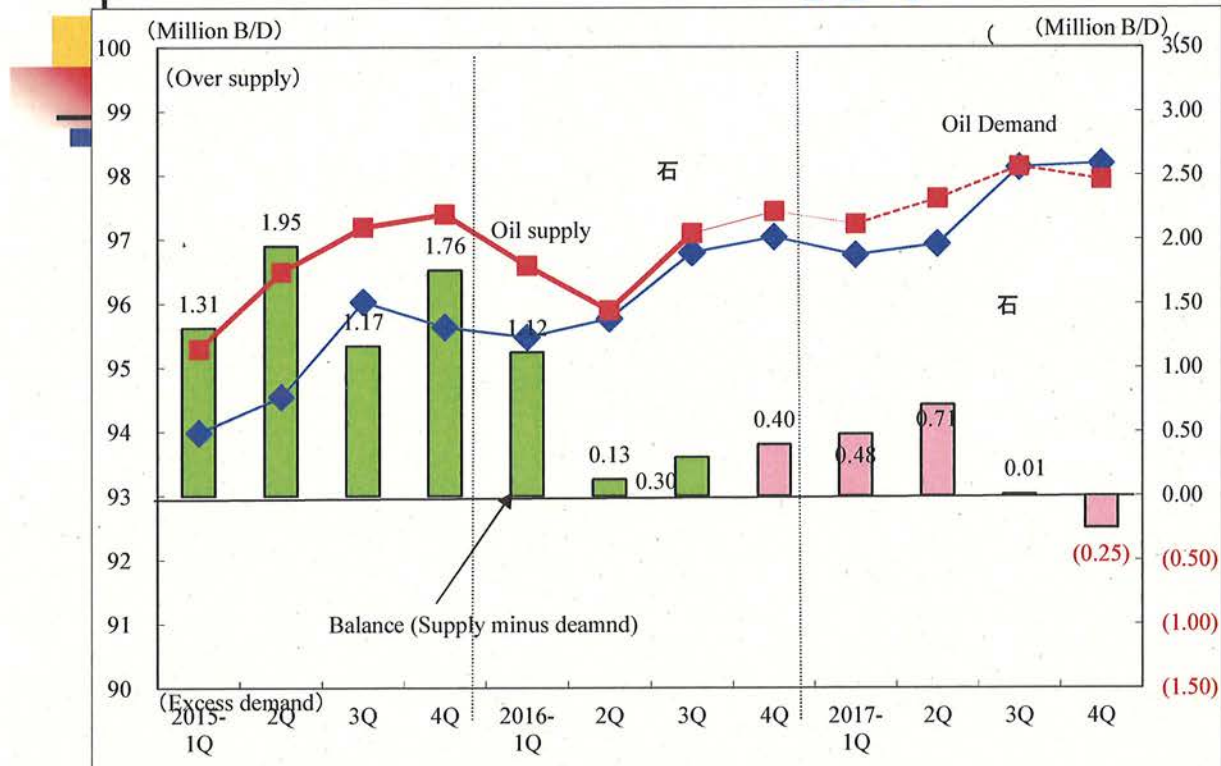
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Emerging landscape with regard to global energy market

- Volatile crude oil price
- Impacts of Unconventional Oil & Gas Development
 - Impacts of US Shale Gas Revolution
 - Impacts of US Energy Independence
- Growing energy demand in Asia and its implication to global energy security
- Emerging concerns for energy supply constraints
 - Geopolitical risks, resource nationalism and issues of market power
 - Ongoing “MENA crisis”, “Iranian crisis”, Ukraine crisis, etc.
 - Lack of timely investment in resource development
 - Importance of stability of energy transportation
- Environmental challenges for sustainability
 - Climate change and global environmental problems
 - Local and regional environmental problems
- Impacts of “March 11th” and Japan’s Energy Policy Review

Outlook for Oil Supply-Demand



Source: Outlook by the Author based on data from IEA "Oil Market Report"

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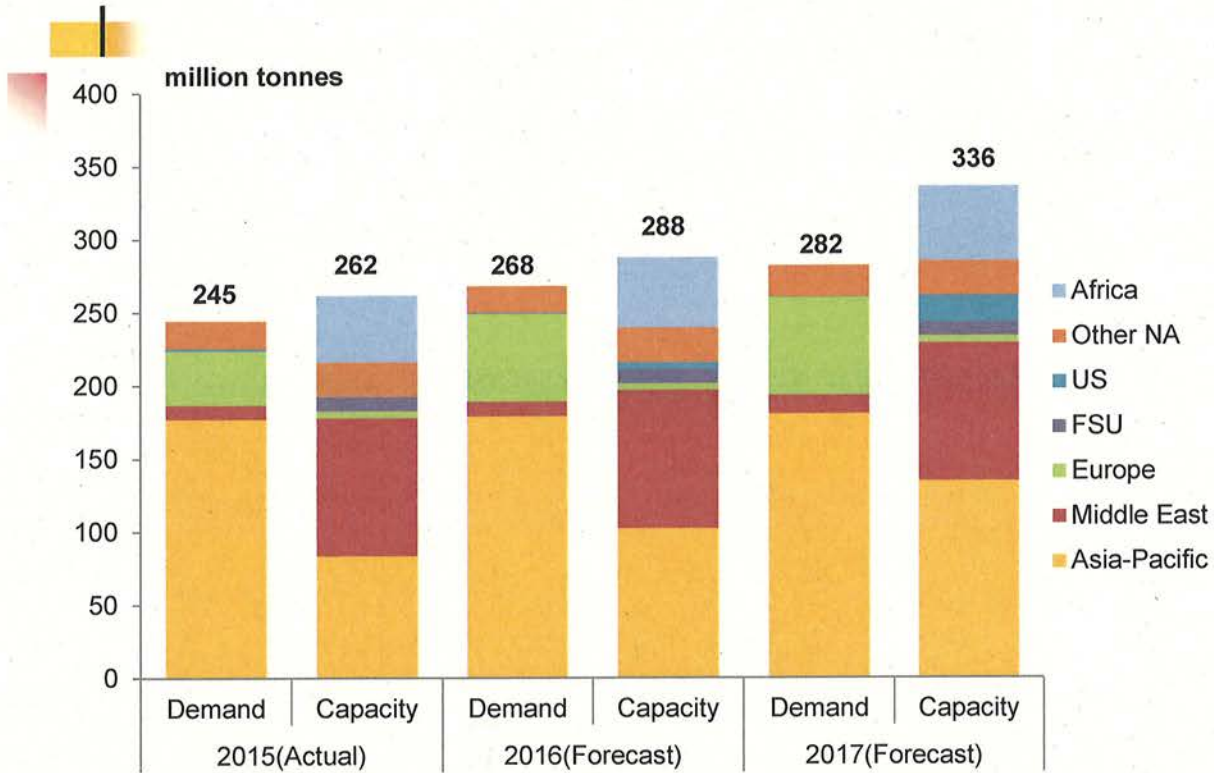
Outlook for Near-Term Global Oil Market

- **Current price level likely to remain in the near term due to prevailing over-supply situation.**
- **The impact on the production of high-cost oil (US shale, etc.) is emerging, but full scale impacts will be felt later this year.**
- **But US LTO production may be resilient and start to pick up again if oil price goes beyond a certain level.**
- **What can be a "surprise"?**
 - **OPEC decision?**
 - **Supply disruption in oil producer countries?**
 - **Economic downside risks?**
- **Current price level is not sustainable for mid-term. Market may head for 70-75\$ in 2020.**

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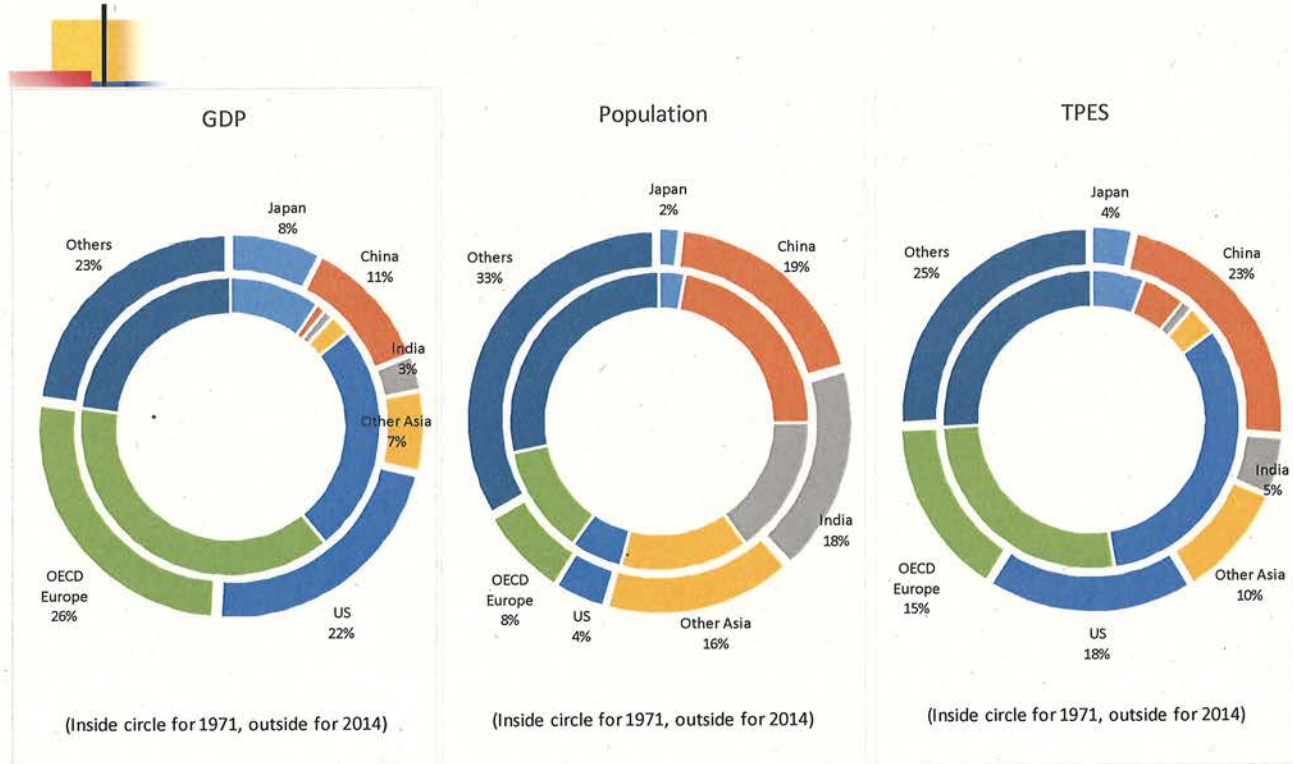
Global LNG Supply-Demand Balance



Source: Prepared by IEEJ



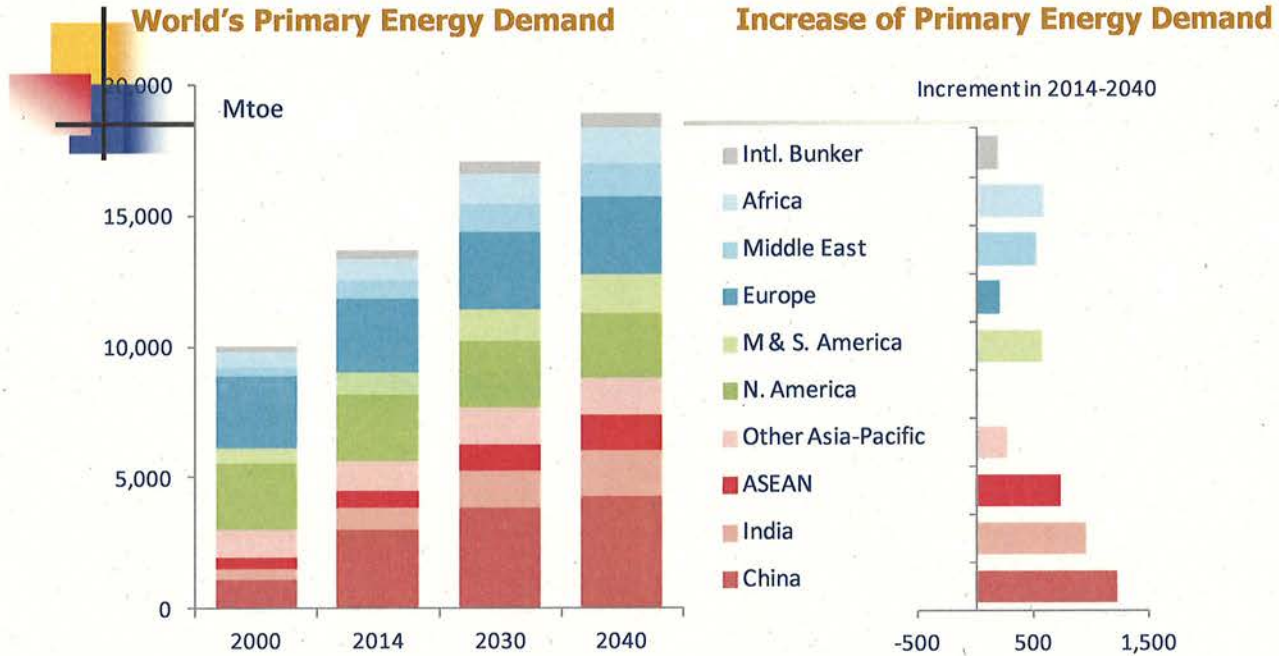
Asia, as a Gravity Center of the World



Source: Prepared from various statistics from World Bank, UN and BP



Energy Market Shifts towards Asia

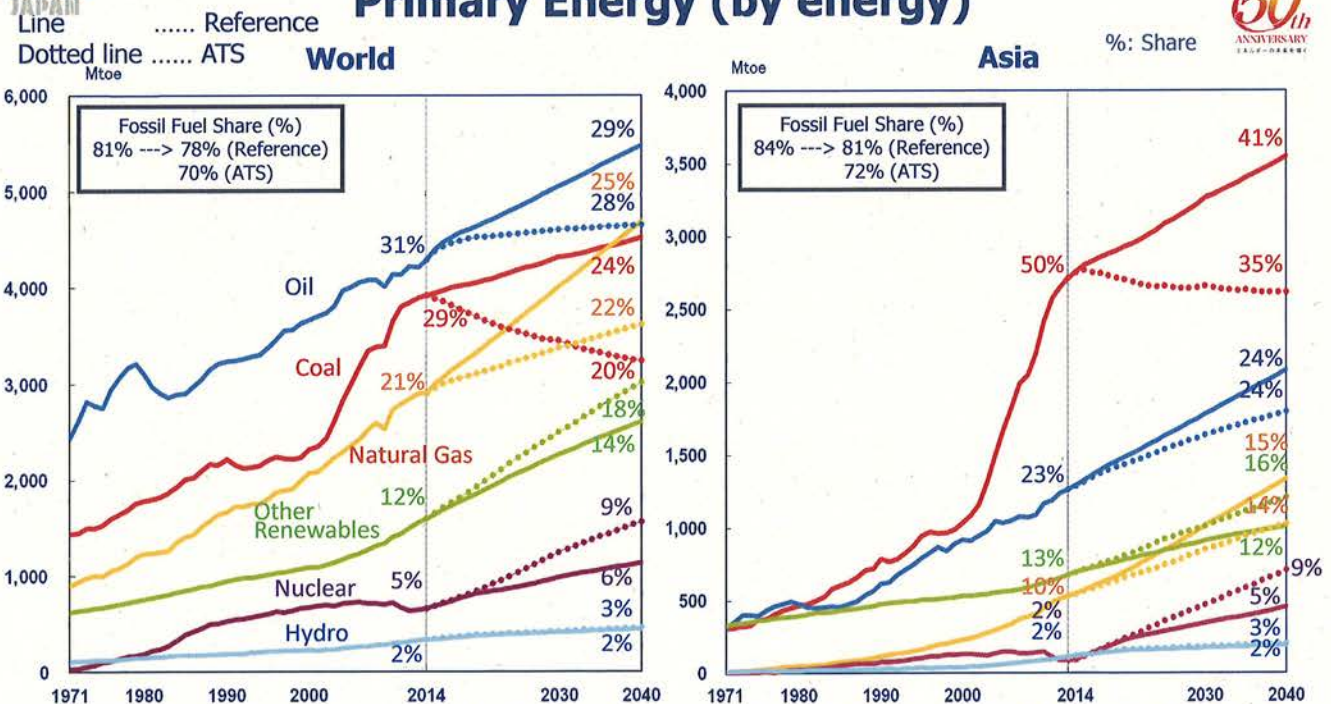


- ✓ Global energy demand increases by 1.4 times and 60% of the growth comes from Asia. Asia is the final destination for around three quarters of oil, gas and coal traded inter-regionally.
- ✓ ASEAN has the third largest demand growth, after China and India.

Source: IEEJ, "Asia/World Energy Outlook 2016"



Primary Energy (by energy)



- ✓ Oil remains the most important fuel in the global energy mix for both Reference and ATS, even though the demand levels off in 2030's in the latter scenario.
- ✓ In Asia, coal demand keeps the largest among primary fuels, even though declining largely in ATS.
- ✓ Fossil-fuel dominates the both global and Asian energy mix, with 70% share even in ATS, although reducing from today's level.

Source: IEEJ, "Asia/World Energy Outlook 2016"



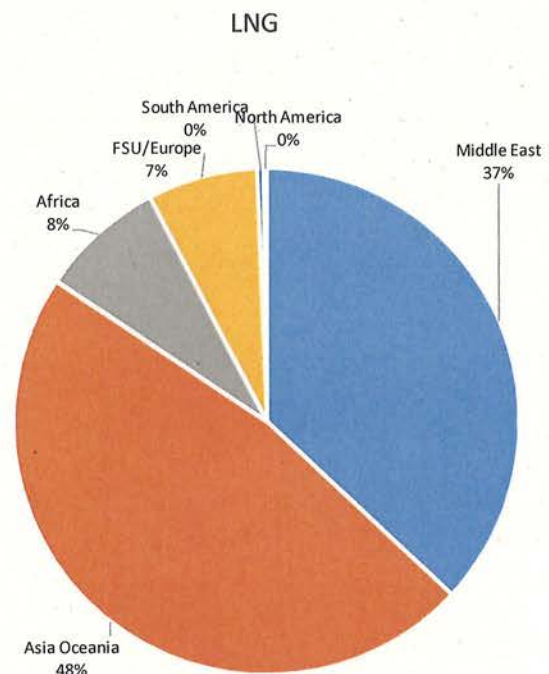
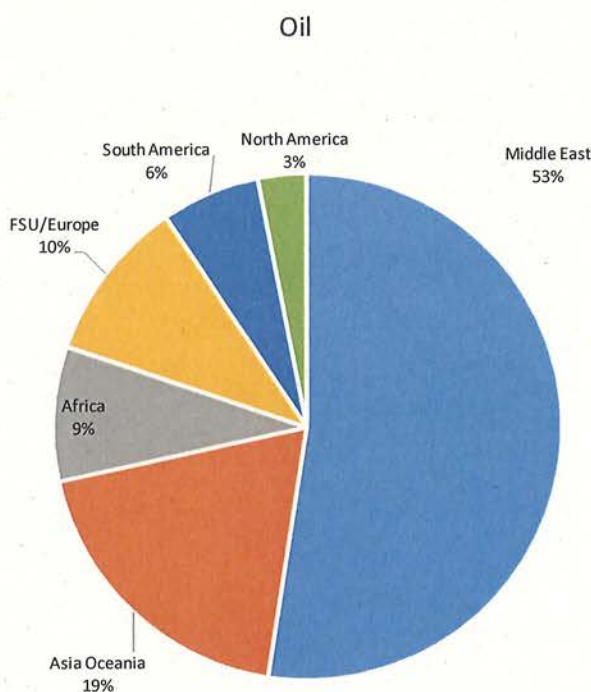
Asia's Challenges for "3E+S"



- Rising import dependence and energy security
 - High oil import dependence. Gas import dependence rising
 - High Middle East dependence, Sea-lane dependence
- High coal dependence and environment loads
 - Challenges for both climate change and pollution problems
- Need for energy market reform
 - Japan leads the way. Reform for both energy market and NOCs
- Challenges for nuclear power program
 - Impacts of Fukushima. Ambitious nuclear power program in China, India, etc, with challenges for safety and public acceptance

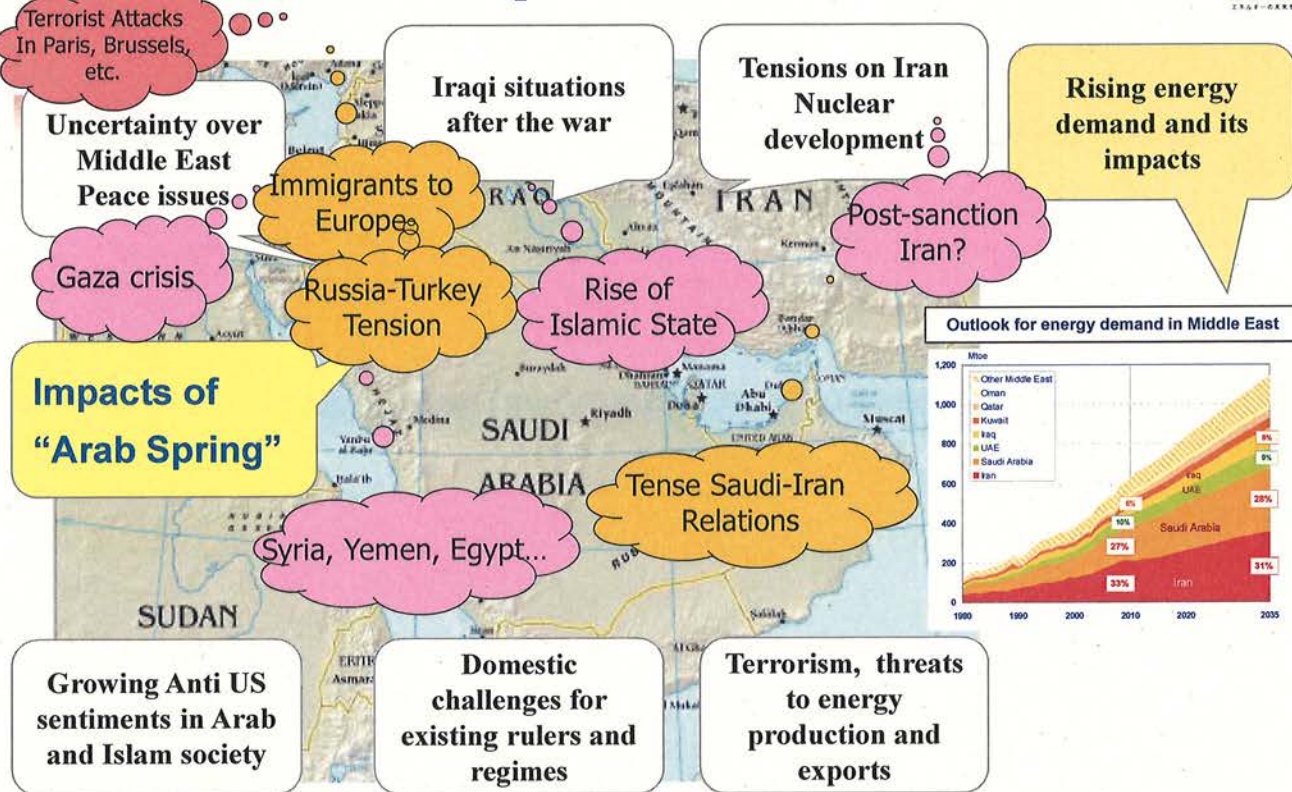


Asia's Middle East Dependence (2015)





Instability in the Middle East



Source: Prepared by IEEJ



Challenges for Japan's Energy Policy

- Re-start of nuclear power
- Achieving Best Energy Mix Target
- Energy Market Reform
- Security of Supply for Fossil Fuels
- GHG emission reduction target

Russian Energy Resources and the World

The importance to the world energy market

- Huge resource potential, possible to meet global energy demand growth in the future
- Production from existing major oil and gas fields face long-term stagnation/decline
- Importance of supply growth in new/frontier fields/areas
- Long term supply growth possible, but uncertainty remains
- Importance of “Demand security” in Europe and expectation for Asian market (Japan, China, Korea, etc.) as a new and growing market
- Various initiatives for enhancing access to Asian market are underway/considered

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Importance of cooperation between Asian consumers and Russia (as a producer)

Consumer and producer need each other because:

- Growing economic and energy relations
- Importance of both Asian countries and Russia in global economy
- Asian consumers (Japan, in particular) :
 - needs energy supply security, based on new reality after Fukushima
 - may provides a stable/reliable market
- Russia (as a producer) :
 - needs energy demand security, based on new reality in Europe and Asia
 - may provides stable/reliable supply
- Both sides need sustainable development, economic growth/diversification

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Possible Areas for Energy Cooperation

- Complement “supply and demand security”
- Joint Efforts to Increase Energy Supply Capacity
- Promotion of Energy Conservation
- Cooperation in Alternative Energy Development (renewable energy, nuclear power, etc.)
- Cooperation in Environmental Protection
- Facilitate and Enhance Mutual Trust and Information Sharing through Improvement in Dialogue
- Etc.

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Summary



- Energy is essential to human existence, social and economic development and civil life for every country including Japan and Russia
- Emerging multiple and serious risks/threats to global energy security and sustainability
- Japan and Asian consuming countries have to address serious energy challenges
- Russia, an important energy market players to fill the expected gap between energy supply-demand in Asia and World
- Asian consumers and Russia, facing new/emerging political, economic and energy market realities, can complement each other
- Regional energy cooperation should be pursued in a way to promote mutual, regional and global benefits, taking into account the surrounding political, economic and energy market realities

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