



Introduction to Session 4 of APERC Annual Conference

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1. APEC ESI
2. Evolution of Energy Security Concept
3. World Energy Governance Today
4. APEC OGSII
5. Possible Next Steps?

1. APEC ESI

- Energy security has been one of the policy imperative for most countries since the oil crises in 1970s.
- APEC as a regional organisation has been also concerned with energy security.
 - **Energy Security Initiative (2001)**
 - ✓ In September 2000, APEC Senior Officials considered what action APEC could take to respond to oil price volatility, and directed the EWG to analyse the situation and make recommendations on ways to strengthen regional energy security.
 - ✓ The EWG developed the APEC Energy Security Initiative, which was endorsed by the EWG in September 2001, and by APEC Economic Leaders in October 2001.
 - ✓ ESI is quite broad as almost all energy issues are linked with energy security including energy data, energy efficiency and renewable energy.

2. Evolution of Energy Security Concept

- From the Oil Crises in 1970 to the launch of APEC ESI in 2001, energy security was understood by its classical meaning.
 - ✓ Main objective: Oil customers' interest by stable supply of oil
 - ✓ Main threat: Foreign states' hostile behavior (a geopolitical risk)
- After those days, the core meaning of energy security (=the stability of energy supply) itself remains unchanged.
- However, since the beginning of the 21st Century, three major incidents have changed and expanded the definition of energy security:
 1. The September 11 attacks in 2001
 2. The Russia-Ukraine gas dispute during 2005-2006
 3. Hurricane Katrina in 2005

2. Evolution of Energy Security Concept

1. The September 11 attacks in 2001

- Violent non-state actors (VNSA) or **terrorists** can be threat to energy security
- In addition to oil trade, **electricity supply system** has come to be considered a potential target for terrorist attacks.
- **Cyber attack** as a new form of threat.

2. The Russia-Ukraine gas dispute during 2005-2006

- Natural gas has become another major fuel to be guarded.

3. Hurricane Katrina in 2005

- Natural disasters such as Hurricane Katrina were recognized as a threat to energy security
 - Natural disaster ≠ a geopolitical risk
- ⇒ A completely new category of threat was added.

2. Evolution of Energy Security Concept

- Other development
- Energy Security in **Coal** Supply
 - Besides oil and gas supply security, coal too faced supply disruption in the past.
 - Despite abundances of coal around the world, nearly 80% of coal import in APEC came from Australia (41%), Indonesia (29%) and Russia (9%)*. ** UN Comtrade 2017*
 - A few South East Asia economies faced coal shortages in 2009-10 because of flooded mines in Australia and Indonesia.
- Energy Security in **Renewables**
 - As world is pushing for higher RE in energy mix, it poses another challenged in securing energy supply because of its intermittency (back-up and/or storage).

3. World Energy Governance Today

- A “Cold War” type bipolar system (IEA vs OPEC) prevailed the world after 1970s.
 - IEA: developed countries as major oil importers/consumers
 - OPEC: major oil exporters/suppliers
- A multilayered energy governance system has emerged since the beginning of 21st Century.
 - IEA (focusing oil for developed countries), IRENA (renewable energy), IAEA (nuclear energy), OECD/NEA (nuclear energy for developed countries)
 - OPEC (oil exporters), GECF (gas exporters), IEF (dialogues between exporters and importers), IEC (energy investment)
 - Oil is no longer the predominant energy source: natural gas, coal, nuclear and renewable have become also important.
 - Developing countries have become major energy consumers, outgrowing developed countries.

3. World Energy Governance Today

“Cold War” type bipolar system (IEA vs OPEC) after 1970s

Energy	Consumer		Supplier
	Developing	Developed	
Oil	-	IEA	OPEC
others	-	-	-



Multilayered energy governance system since 21st Century

Energy	Consumer		Supplier
	Developing	Developed	
Oil	-	IEA	OPEC
Gas	-	(IEA)	GECF
Coal	-	-	-
Nuclear	IAEA, NEA		
Renewable	IRENA		
(Crosscutting)	IFC, IEC		

4. APEC OGS I

- APEC started **Oil and Gas Security Exercise (OGSE)** in 2012 and expanded to **Oil and Gas Security Initiative (OGSI)** in 2014.
 - **OGS Exercise (OGSE)**: Southeast Asia (2013), Indonesia (2013), Philippines (2015), Australia (regional capacity building with Indonesia, the Philippines and Thailand) (2017)
 - **OGS Network (OGSN)**: 15 bi-monthly issues up to April 2017, and annual meetings (OGSF) twice in Japan in 2015 and 2016 (3rd OGSF will be held in Irkutsk, Russia in June 2017)
 - **OGS Studies (OGSS)**: 7 reports published and 4 reports nearly completed
- It is because not only oil but also gas becomes an important energy source for APEC.
- This time APEC renewed its concern over energy security and focused on emergency preparedness.

4. APEC OGSI

- APEC energy minister instructed cooperation with IEA and ASEAN in conducting OGSE and OGSI.
- As the executant of OGSI, APERC has fully taken into consideration the evolution of energy security concept.
 - gas supply shortage
 - threat by terrorists
 - natural disasters
 - man-made accidents
 - cyber attacks

5. Possible next steps?

- APEC may have to step up its cooperation for energy security.
- Possible components may include:
 1. APEC Fossil Energy Supply and Demand Dynamic Survey
 2. APEC Fossil Energy Security Database (including security indexation)
 3. APEC Oil and Gas Security Initiative (continued, but explicitly include electricity)
 4. Establishment of **APEC Fossil Energy Cooperation Strategy**
 5. Formulation of '**APEC Regional Energy Security Framework**' Plan (aspirational regional goal of oil/gas stockpiling, voluntary lending/borrowing agreement of oil/gas reserves in emergency?)
 - Stockpiling target on regional basis or each economy basis?
 - Stockpiling target on import basis (like IEA) or consumption basis?
 - How to build up gas stockpile?
 - How to operationalize the lending/borrowing agreement (see APSA)?



Thank you for your kind attention

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