

APEC Oil and Gas Security Newsletter

APERC's President Message

Energy security has been a global concern and will remain to pose a great challenge for the APEC region. With foreseen economic expansion of the APEC region, energy demand is expected to speed up and thus securing energy supply would be a serious issue that needs utmost attention and priority. As we all know, oil is and will still be a major fuel particularly for the transport sector and will continue to have significant portion in the primary supply mix. On the other hand, natural gas, being relatively a clean fuel compared with other fossil energy resources, is becoming a popular fuel in the region with increasing share in the supply mix profile of most Economies.

It is in this context that the Oil and Gas Security Initiative (OGSI) has been launched in order to strengthen the preparedness of the APEC economies to emergency situations in oil and/or gas supply. One of the three pillars of OGSI is the Oil and Gas Security Network (OGSN) which consists of those who are in charge of oil and gas security in each APEC economy. As one of the major outputs of the OGSN, a newsletter has been conceptualized and released to provide important information on global developments and insights relating to oil and gas supply security issues to the OGSN members.

The newsletter will be a bi-monthly issue to capture latest events in oil and gas markets including Middle East updates that may have some impacts on supply security of APEC members. It is likewise a venue for sharing of perspectives and experiences as revealed in the interview with experts on oil and gas issues and in featured APEC economy's practices and measures in addressing supply-related threats. We hope that the modest volume of knowledge to be reaped from the newsletter may serve as good reference to aid policy makers and government entities in the region involved in energy supply security to revisit and enhance existing policies, programs and measures to ensure greater supply security and be resilient to any potential supply emergency threats in the future.

But more important than the newsletter is the unceasing collaboration and closer partnership we have built and our common desire to collectively address and deal with the various energy supply security issues that the region may confront in the future. Lastly, let me thank those people who worked hard to put the pieces together for the release of the newsletter, including the experts who devoted a portion of their precious time to be interviewed and featured in the newsletter.



Mr. Takato OJIMI is the President of Asia Pacific Energy Research Centre (APERC).

He served various important posts in Japan's Ministry of Energy, Trade and Industry.

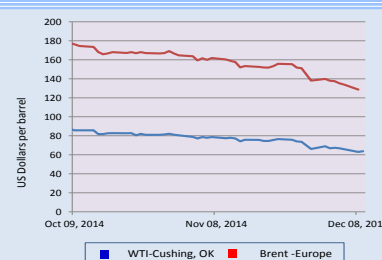
He has had a lot of international working experiences in such organizations as OECD, Trade Directorate and as a diplomat at the Japanese Delegation to the OECD in Paris.

He also served as APEC Senior Official representing Japan.

He graduated from Keio University (B.A.) and from Cambridge University, U.K. (M.A.)

(Photo courtesy of Mr. Ojimi)

CRUDE OIL SPOT PRICE



WTI—USD 63.82 (Dec. 12)

Source : US Energy Information Administration

In this issue

APERC's President Message.....	1
European Commission Gas Security Stress Test	2
LNG Producer-Consumer Conference 2014..	2
Key Points of the Discussions at the Second Meeting of the Multilateral Joint Study Group on LNG	3
Interview with Mr. V. Bala, Part 1.....	4
Middle East Update	5
Diversification of Oil Supply and Asia-Pacific Oil Trade	6

Highlights

- Varied and Evolving Concept of Natural Gas Security
- Crude Oil Spot Price (WTI and Brent)
- Natural Gas Spot Price (Henry Hub)
- Photo Story

... a prolonged supply disruption would have a substantial impact in the EU with the Eastern Member States and the Energy Community countries.....

European Commission Gas Security Stress Test

The European Commission has published the results of gas security stress test analyses to determine the resiliency of the EU energy system to potential crisis in the coming months. The stress tests were carried out to 38 European countries (including EU) involving simulation of two supply disruption scenarios. One is a complete halt of Russian gas imports to the EU and the other is a disruption of Russian gas imports through Ukrainian transit route for a period of one or six months.

The tests revealed that a prolonged supply disruption would have a substantial impact in the EU with the Eastern Member States and the Energy Community countries being the most affected. Finland, Estonia, the former Yugoslav Republic of Macedonia (FYROM), Bosnia and Herzegovina, and Serbia would suffer by at least 60 per cent reduction in their gas supply. Even households will also endure the effect of gas supply shortfall with curtailment in their gas usage. In a scenario where European countries work together, instead of relying on national measures, few consumers would be cut off from gas supply and no households would be affected.

National reports disclosed that EU and neighboring countries have been considering a wide-range of measures to mitigate the impacts of a supply disruption, such as supply diversification, use of reserves and strategic stocks, demand restraint, and switching fuels. However, these measures are considered interventionist channels and are too much focused on domestic concern. A market-based approach should be the guiding principle and that the non-market measures (i.e. the release of strategic stocks, forced fuels switching, and demand restraint) should only be adopted and kick in when the market fails. In a well-functioning market, price signals will attract new deliveries of gas, mainly LNG, and limit demand, while the commercial use of storage will help ensure the demand-supply balance. The report on security stress test likewise contains concrete recommendations on short-term measures for the most vulnerable EU Member States and the neighboring countries.

LNG Producer-Consumer Conference 2014

The 3rd LNG Producer-Consumer Conference was held on 6 November 2014 in Japan, which was jointly organized by the Ministry of Economy, Trade and Industry (METI) of Japan and the Asia Pacific Energy Research Centre (APERC). Mr. Yoichi Miyazawa, Minister of METI, delivered the opening statement. The conference was also graced with keynote speeches of four ministers from Australia, Canada, India and Qatar, and the Executive Director of the International Energy Agency (IEA)

More than 1,000 attendees participated in the Conference composed of government officials, company executives, and energy analysts from about 50 LNG producing and consuming countries and regions, as well as international organizations. The Conference had four sessions covering the topics on LNG Supply Outlook, LNG Demand Outlook, LNG Market and Trade, and LNG Technology Developments. (*next page*)

Each session had panel discussions with presentations from senior government officials, business leaders and prominent experts on assigned session's topics.

For more information, please visit http://aperc.iej.or.jp/publications/presentations/lng_conference_detail.php?article_info__id=179



Participants from high-level representatives including Ministers, business leaders and experts from producer and consumer countries of LNG. (Source: APERC website)

Key Points of the Discussions at the Second Meeting of the Multilateral Joint Study Group on LNG

On 9 September 2014, the second meeting of the Multilateral Joint Study Group on LNG was held in Tokyo. The Study Group was established following a proposal and agreement during the Second LNG Producer-Consumer Conference held in September last year. The purpose of the Study Group is to invite renowned experts from around the globe to discuss the various issues of the LNG market including possible measures to achieve sound market development.

In the meeting, higher LNG price and its impact on demand were discussed particularly on cost competitiveness against other energy resources, which might suppress the growth in demand. Members of the Study Group had expressed varied opinions on the scale of impact. If “diversification of risk by diversifying energy supply structure” will be regarded as the basis of energy security, limited use of natural gas could be an opportunity loss for APEC economies to improve their energy supply security. Natural gas is said to have an advantage in terms of lowest carbon footprint among the fossil fuels, and thus its utilization is one of the ways to realize a low carbon society. However, since higher price may prejudice the efforts to promote and expand the use of LNG, its price must be therefore at an affordable level to consumers. On the other hand, the LNG supply chain would require huge capital and (next page)

Varied and Evolving Concept of Natural Gas Security

Energy security has been an important policy agenda in many APEC economies. While oil supply security was a critical issue for many importing economies especially in the 1970s, the recent development seems to also focus on natural gas security.

The concept of natural gas security differs significantly, depending on the specific energy challenges an economy faces. For instance, importers concern about physical supply stability at affordable price, while exporters call for security of demand to have a steady gas export flow at a price that would not only encourage new investments, but support overall economic development. The concept also has evolving nature, too. Indonesia and the U.S. are prime examples of such evolving nature. Indonesia was once the largest LNG exporters in world, but now will import potentially significant amount of natural gas. Thus, the concept of supply security for Indonesia becomes a policy issue, which was not before a concern for the economy. On the other hand, 10 years ago, the U.S. expected massive gas imports to meet its domestic demand. However, with the shale gas revolution, the economy is transforming into a net exporter of natural gas, and therefore security of natural gas supply is not a pressing issue any more. Instead, the U.S. natural gas policy may be more demand-security oriented, especially in the situation where the competitiveness of the U.S. LNG is undermined by higher Henry Hub and lower crude oil prices.

These two examples are perhaps extreme. However, it might be useful for policy makers to understand the varied and evolving concept of natural gas security.

*"It was not easy
as it was not hard
too".*



*Former ASCOPE Secretary In Charge
Mr. Rene Bala during the Oil and Gas
Security Forum in Tokyo, 2014.
(Photo courtesy of Mr. Bala)*

Mr. Victorino S. Bala was the Secretary-in-Charge of the ASEAN Council on Petroleum (ASCOPE) from 2009-2014. Before his stint at ASCOPE he was the Head of Research of the Philippine National Oil Company (PNOC) who has lead various re-search projects on alternative energy and spearheaded the creation of the PNOC–Renewables Corporation.

The first part of the two-part APERC Secretariat's interview with Mr. Bala is found in this page.

Key Points of the Discussions.....(from page 3)

that certain price level needs to be maintained to ensure return on investment.

Other point of discussion was on the rapid ongoing changes in the pricing system. In Europe, some analyses showed that Hub-linked pricing has increased to account for more than half of all contracts, while Asia has also started to consider or adopt a hybrid pricing system that combines the oil-linked price with other pricing systems such as Henry Hub price. Hub pricing itself does not necessarily mean lower price. However, it is required to establish price formation to timely reflect market condition as a prerequisite to seek acceptable price range for stakeholders, as well as to secure supply chain investment and to have an efficient market. Also tackled was the inefficiency of the LNG market which can be corrected through supply-demand adjustment by way of spot and short-term contracts, swaps and easing, and abolishing the destination restriction on trading. If LNG trading is improved and the market functions efficiently, the stability of natural gas supply and the economic efficiency would likewise be enhanced that further contribute to greater energy security of the APEC region.

LNG is becoming an important energy source in the energy supply mix of some economies in the APEC region. And to further accelerate LNG's contribution in the region's supply mix, issues surrounding its demand and supply should be addressed and resolved. The Study Group hopes that the continuous discussions would somehow promote LNG as a better energy source for the region.

Interview with Mr. Victorino S. Bala

Mr. Bala considered ASCOPE as his family. He stated, he have known them for almost 10 years and have grown with them, had fun memories: wonderful golf fellowships, deep appreciation of ASEAN cultures & traditions, food & drinks, similarities & differences in languages spoken & written, among others.

As ASCOPE Secretary In Charge, addressed the oil & gas resources in many different ways, such as research & studies, monitoring the supply & demand issues and prices. He participated in various educational and technical fora to share studies/opinions and knowledge.

The following is the Part 1 of APERC Secretariat's interview with Mr. Bala

APERC—Was it during your term when APSA was conceptualized? Who initiated the APSA?/During the conceptualization of APSA, were there any disagreements (in any form) on the provisions of APSA?

Mr. Bala -On June 24, 1986 in Manila, Philippines, the ASEAN Member Countries signed the ASEAN Petroleum Security Agreement (APSA). This agreement was known as the 1986 APSA.

However, on July 1997, during the 17th AMEM in Bangkok, Thailand had tasked the ASEAN Council on Petroleum (ASCOPE) to review the provisions of APSA.

And, in March 1, 2009, the ASEAN Members States signed the revised APSA in Cha-am, Thailand.

APSA, throughout the years under review underwent various changes, consultations exchanges on approaches, strategies & language use. It was not easy as it

Middle East Update

The aerial bombardment campaigns by the US led coalition against “Islamic State (a.k.a. Da’ish)” positions in Iraq and Syria has not succeeded in substantially degrading the offensive capabilities of this extremist organization. Still, it has managed to curtail immediate threats against Iraqi oil production facilities, at least for the moment. There are indications to believe that the Iraqi Army and the coalition forces are gaining momentum towards restoring stability to OPEC’s second largest oil producer.

But Da’ish inspired extremism has apparently crossed into Saudi Arabia. Attacks against Shiite residents of Ahsa by Sunni militants is a wake-up call for the largest OPEC producer. The country’s oil-producing Eastern Province has already witnessed heightened level of tension since October 2014 following the issuance of a death sentence against a prominent Shiite jurisprudent for charges of sedition. The Houthi group’s political and military stretch in neighbouring Yemen is also an irritant to the Kingdom’s security.

The Iranian nuclear file is far from over. The deadline for the interim agreement was extended for another 7 months, but major differences on key issues including Iran’s enrichment capabilities remain to hamper a final settlement. Tough political decisions are required on both sides to secure a deal. Still, tension in the region will be containable, as long as the negotiating framework is in place.

Despite the down trend in the oil market, Saudi Arabia has shown little interest in curtailing oil production of its own and other members of OPEC. The intention behind this decision is unclear, but a theory that the Saudis are staging a challenge against conventional Russian and non-conventional US oil productions does have a valid point.

was not hard too. ASEAN has to work painstakingly slow but sure and thru consensus.

APERC—When will APSA be implemented? Is there anything more you wish to do for the ASCOPE? Would you consider the implementation of APSA your best accomplishment?

Mr. Bala—The concept of APSA works inherently in ASEAN as this have been tested several times before when ASEAN faced oil crisis. The ASEAN culture of sharing exists thru bilateral talks and cooperation.

While APSA technically needs to have the APSA operational manual/guidelines to make it to be a real working tool of cooperation during emergency or oil disruption or crisis. This manual will set the rule or guide on who does what, when, how, with whom, at what costs during time of crisis.

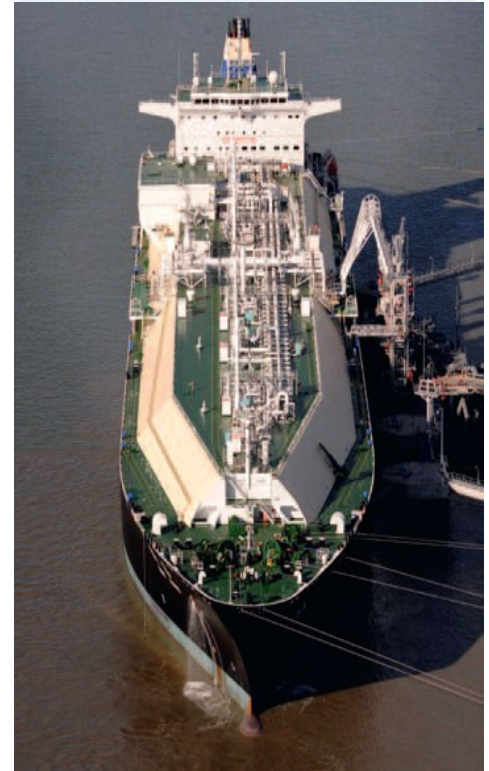
APSA is an ASEAN instrument. An ASEAN tool of cooperation during emergency. It is an instrument of cooperation that is uniquely ASEAN, in character & spirit.

ASCOPE was only a cooperating ASEAN body to do its share in the conduct of review and implementation of APSA. ASCOPE being an expert body on oil & gas matter.

In ASEAN, works is done on a collectively & consensus ways.

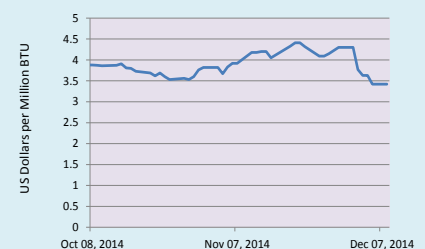
APSA is a great work of ASEAN. But of course, with the help & advise of our international cooperating partners like IEA, APERC, etc.. *(To be continued)*

Photo and Photo Story



The **Min Rong** tanker berthed at Tangguh liquefied natural gas (LNG) plant in Indonesia. Indonesia is the second largest natural gas producer in Asia.
Source : BP 2014

NATURAL GAS SPOT PRICE



Henry Hub –USD 3.42 (Dec. 12)

Source :US Energy Information Administration

Diversification of Oil Supply and Asia-Pacific Oil Trade

It has been long said that the core principle of energy security is diversification. While crude oil supply to Asia remains dominated by Middle East, there is a clear sign of steady increase of new non-Middle Eastern crude oil supplies to Asia in recent years.

In China, for instance, while the share of non-Middle Eastern crude oil imports has remained at around 50.0% in the last decade, its import volume from non-Middle Eastern producers has significantly increased by 2.4 times, from 1.22 million barrels per day (b/d) in 2004 to 2.94 million b/d in the first half of 2014. Japan has also increased its non-Middle Eastern crude oil imports from 0.47 million b/d to 0.62 million b/d during the same period. Supply growth from Far Eastern Russia and Latin America in particular has contributed to the increased supply to China and Japan. India, although the country is not an APEC economy, has also raised its import volume from non-Middle Eastern oil supply, particularly from Latin America. And even in the last five years, India's non-Middle Eastern crude imports almost doubled from 0.85 million b/d in 2008 to 1.59 b/d in 2013, mostly coming from Africa and Latin America. Asian oil market has now become a place where crude oil supply from all over the world meets.

What causes this change? There are a couple of reasons. First, the presence of Asian market has increased in the world oil market. Asia's oil demand has consistently expanded, while the US and European markets have been shrinking. Any incremental oil supply, regardless of its origin, will need to find a market in Asia. Second, the share of transportation cost to total procurement cost has fallen.

In the early 2000s, transportation cost was about 8.0% to 10.0% of total crude oil acquisition cost. Now, it is below 5.0% because, while oil price level has increased, tanker tonnage has a surplus balance and the freight rate has become lower. Non-traditional long-haul crude oil transportation from non-Middle Eastern countries to Asia is now less of a barrier. Third, shale oil revolution has changed the world crude oil trade flow. The increased domestic crude oil supply of the U.S. is pushing out from its domestic market the traditional crude oil supply (coming from Western Africa and Latin America) to go somewhere else and increasingly directed towards the Asian market. All these factors have a structural nature rather than a cyclical phenomenon, and thus it is likely that Asian crude oil import continues to be more diversified.

Further, there is a growing expectation that new supplies from the east side of Pacific Ocean may also be available that would increase non-Middle East crude oil supply. There may be a new crude oil supply from the U.S. if the existing regulation for crude oil export will be lifted; from Canada, if transportation infrastructure to the Pacific coast is developed; and, from Mexico, if the ongoing reform in its oil and gas sector will bear fruits and raise its crude oil production and exports.

It is needless to say that such enhanced diversification improves energy security for crude oil importers in Asia, and at the same time, finding a new export outlet in Asia also help Canada and Mexico to expand their export markets. More active cross-Pacific crude oil trade is mutually beneficial to both sides of the ocean and will certainly solidify economic ties in Asia Pacific region

Asia Pacific Energy Research Centre

The Asia Pacific Energy Research Centre (APERC) was established in July 1996 in Tokyo following the directive of APEC Economic Leaders in the Osaka Action Agenda. The primary objective of APERC is to conduct researches to foster understanding among APEC members of regional energy outlook, market developments and policy.

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