



APERC Workshop

**The 49th APEC Energy Working Group and Associated Meetings
Gyeongju, Republic of Korea, 22 June, 2015**

4. APEC Oil and Gas Security Initiative
4-3. Oil and Gas Security Network Report
(Newsletter and Forum)

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Asia-Pacific
Economic Cooperation



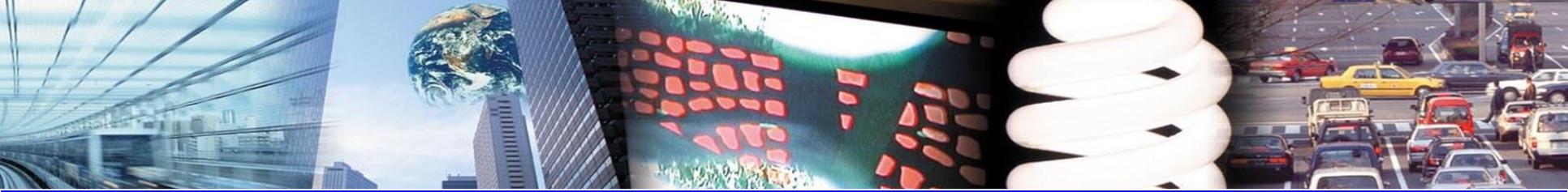
OUTLINE OF PRESENTATION

Newsletter

- Background
- Progress
- Way Forward

1st OGS Forum

- Background
- Next Steps



BACKGROUND

- ❖ **Newsletter** is one of the important projects under the pillar APEC Oil and Gas Security Network (OGSN);

OBJECTIVE:

- ❖ Generally, aims to report on the development of oil and gas security initiatives in the APEC region;
- ❖ The coverage was expanded to include global oil and gas issues;
- ❖ The APERC Secretariat monitors the development by initially establishing a network within the region;
- ❖ Published every other month.





PROGRESS

Three Issuances to date

- 1st Issue – December 2014
- 2nd Issue – February 2015
- 3rd Issue – April 2015
- 4th Issue – June 2015

Editorial Board Composition

- APERC
- IEEJ

Meetings

- Once a month

1st Issue Sample

APERC
Asia Pacific Energy Research Centre

December 2014
Issue No. 1

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 APERC 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

of gas security energy system to be carried out to two supply distributors to the EU. European trans-

would have a s and the Ener- gation, the for- gasolina, and eld gas supply, ortfall with cur- countries work mers would be

countries have a impacts of a ves and strite- hase measures 'ocused on do- inging principa range: stocks, e selected and rice spans will while the com- lation. The re- mendations on 'States and the

ed on 6 Novem- of Economy 'ergy Research delivered the sym- speechn- the Secu- nce composed analysts from ons, as well as ns covering the 'G Market and

"DPE as his family. He stated, he have known them for almost 10 with them, had fun memories: wonderful golf fellowships, deep cultures & traditions, food & drinks, similarities & differences in ten, among others.

Charge, addressed the oil & gas resources in many different ways, es, monitoring the supply & demand issues and prices. He partial- and technical fora to share studies/opinions and knowledge.

Part 1 of APERC Secretariat's interview with Mr. Bala 'your term when APSA was conceptualized? Who initiated conceptualization of APSA, were there any disagreements revisions of APSA?

1996 in Manila, Philippines, the ASEAN Member Countries 'roleum Security Agreement (APSA). This agreement was 'SA.

7, during the 17th ANEM in Bangkok, Thailand had tasked Petroleum (ASCOPE) to review the provisions of APSA. 'em, the ASEAN Members States signed the revised APSA in

years under review underwent various changes, consulta- 'proaches, strategies & language use. It was not easy sit

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/seminars/eng_conferece_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 write 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 on 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 is- sue, which was not before a concern for the economy. On the other hand, 20 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. In- stead, 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.

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 literally 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)

Supply and Asia-

d that the core principle of location. While crude oil supported by Middle East, the increase of new non-Middle to Asia in recent years.

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 revolution has changed the low. The increased domestic U.S. is pushing out from its domestic crude oil supply (coming from Latin America) to go seemingly directed towards the factors have a structural na- phenomenon, and thus it is oil import continues to be

Photo and Photo Story



The Min Dong 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

rowing expectation that new de of Pacific Ocean may also increase non-Middle East may be a new crude oil supply- ing regulation for crude oil in Canada, if transportation (ifc cost is developed, and, ing reform in its oil and gas 'nd raise reform its oil produc- that such enhanced diversifi- security for crude oil import- and Mexico to expand one active cross-Pacific crude (ineficial to both sides of the solidify economic ties in Asia

this Edition

Mr. Tetsuo Morikawa
Mr. Koichiro Tanaka
Mr. Yoshihiko Kobayashi

es Gellidon

Chief

3rd Issue Sample

APERC
Asia Pacific Energy Research Centre

April 2015
Issue No.3

APEC Oil and Gas Security Newsletter

Chinese Economy and Oil & Gas Market

During the National People's Congress held in early March, the government announced that China aims to target a 7% GDP growth rate in 2015. China enjoyed a high GDP growth rate of around 10% for over 20 years after the economic stagnation in the early 1990s following the Tiananmen Square incident. Factors, such as the struggling export industry affected by weak economic situation of developed economies, however, slowed down China's economic growth at 7.4% in 2014 (IMF, World Economic Outlook, October, 2014). The 2015 goal that the National People's Congress announced early this year is even below the 2014 level.

China is currently importing a large amount of oil and natural gas. It is the second and ninth largest oil and natural gas importer of the world in 2012, respectively (IEA, Energy Balance 2014). The decline of energy demand in China caused by the economic slowdown is believed to cause the decrease of import volume affecting the global market. Currently, crude oil price is a little less than \$60 per barrel which is very low compared with the level that prevailed for the past four years. In reaction to the low crude oil price, the natural gas/LNG prices which were linked with that of the crude oil price are also on the decline. A change in import volume of oil and natural gas in China may become a factor that causes the continuing low oil prices and possibly for some time to come.

Such low oil and natural gas prices in the international market can be good news to net importers like China as they help contain the outflow of national wealth and bring benefits to their industries and people. On the other hand, the situation can be considered tough by net exporters because it deteriorates the trade balance and adversely affects the oil and gas export related industry and consequently their respective economies.

This situation, however, does not always create benefits for net importers. Following the decline in oil prices, investment projects for oil and natural gas have been under reassessment all over the world. Some of them may even end up being cancelled. While this is a natural behavior based on market principles, excessive adjustments may cause shortages of supply in the future.

increase of 344% from the 2009 subsidy level. As a consequence of the large amount of fuel subsidy allocated in the state budget of Indonesia, the capability of the Government to finance various programs for the improvement of public welfare and infrastructure development were hampered.

The establishment of the new policy on fuel subsidy by the Government of Indonesia amid the decreasing world oil prices is a good decision. This decision will likely minimize the negative impact to many people and will be beneficial to the Government. The new policy on fuel subsidy will strengthen the Indonesian state budget through the following among others: the Indonesian Government will have more budget allocated to the productive sector and in the development of infrastructure projects which will support economic growth in Indonesia. Lastly, the public will also likely control their fuel consumption which would mean reduction in the economy's fuel importation.

"The falling of oil prices causes an enormous impact on its economy."

Middle East Update

The Islamic State (IS) militant suffered serious setbacks in many fronts in Iraq. At the end of March this year, Prime Minister Haider al-Abadi proudly announced that the center of Tikrit, the second largest city in Iraq which IS had held since late June 2014, was finally liberated. However, the city still has several IS-controlled neighborhoods and is plagued by numerous booby-trap bombs left by the IS militants. It is a critical question whether the Shiite militia which greatly contributed to the recapture of Tikrit will be able to sustainably hold the city in conjunction with the Sunni-dominated local police force.

The challenges that Iraq is currently facing are not confined to threats to its security. The falling of oil prices causes an enormous impact on its economy among others. Cost of the war on terror, including salaries for militias and expenses for accommodating refugees, became a serious burden on Iraq's budget. The oil industry cannot be spared from the impact following the collapse of oil prices. The 17 years of the cost of oil field development that the Iraqi government owes the International Oil Companies (IOC) by the end of 2014 stands at 9 billion US dollars of 18 billion US dollars. The Iraqi oil ministry is then or issuing government bonds to cover the affecting Iraq's oil production surge scenario, which



Mr. Kazuo Sadamori was appointed Director of the Energy Markets and Security Directorate on 8 September 2012. Prior to joining the IEA, Mr. Sadamori, a Japanese national, held many senior positions at the Japanese Ministry of Economy, Trade and Industry (METI) and most recently was as Deputy Director-General at the Minister's Secretariat.

"countries with indigenous oil and gas resources with no or small level of imports are more resilient than net importers."

APEC Oil Supply Security

Asia Pacific Energy Research Centre (APERC) and Energy Economics, Japan (EEJ) are jointly making a oil stockpiling policies of APEC economies. The study how APEC economies can deepen their in terms of oil supply security. Details of the research and distributed at the 1st Oil and Gas Security Forum (OGSF) last April 23, 2015 held in Kitakyushu.

view shows that oil supply situations and development security policies of each economy greatly APEC economies. While some economies comment on importation of their oil supply, others are in more than their domestic requirements. Some on 200 day of stockpiling while others are still setting-up their stockpiling systems. This fact

LNG Supply

LNG (Japan Korea Platts, was in 2014. The 59 reached 53-average LNG 2015. As spot of Japan's t should be as Therefore, erage price o ket is weak a "Sta



Shirashima National Oil Stockpiling Base
Photo Courtesy of JOGMEC

Photo and Photo Story

Shirashima National Oil Stockpiling Base
The construction of Shirashima national crude oil stockpiling base was completed in August 1996. It is the world's largest floating oil storage facility located about 8 km off the coast of Kitakyushu. As Japan is a leading oil consuming country in the world and depends on 99% of oil importation, the base stores crude oil for about 10 days of its annual consumption.

The stockpile of crude oil is also Japan's system of preparation for any unexpected situation which would result to disruption of oil supply.
Caption story courtesy of Japan Oil, Gas and Metals National Corporation (JOGMEC)
Shirashima Oil Storage Company, LTD.

and Gas Security Exercises (OGSE) by sending your experts. What is your impression on the APEC-OGSE? Do you think the exercises we had in Bangkok and Jakarta were important and useful especially for the Southeast Asian members in dealing with emergency situation on oil and gas? Do you think we should continue this type of exercise?

Mr. Sadamori: OGSE is very well organized, and commendable initiative for the countries in Asia Pacific region to seriously consider energy security issues. I was pleased to be included. Staff members who took part in the regional exercises give me a very positive reports about the outcomes. It was also a precious opportunity for us to communicate with APEC countries, especially ASEAN member countries. APEC: We appreciate very much IEA for assisting APERC in our efforts in addressing possible oil and gas security emergency. As one of the energy demand growth in decades to come. Countries in this region should improve emergency response capacity through various types of cooperation.

APERC: Any happy moments while serving as Director of IEA? Any regrets?
Mr. Sadamori: Ever since I worked with the IEA as a representative of Japan in 2005 and 09, I have wanted to have a chance to work in the IEA Secretariat. Past two years have turned out to be a lot better than expected. I feel very fortunate to work here.

APERC: Any final advice?
Mr. Sadamori: Preparedness is the key. To be prepared we need good data, analytical capacity, well-maintained resource regime, and good communication. I hope that APERC would support APEC countries in these functions, and IEA would be pleased to support.



The 2nd APEC Oil and Gas Security Forum (23-24 April 2015, Kitakyushu, Japan)

APERC: Which member country of IEA do you think is more resilient and which is more vulnerable to any threats of oil supply or gas supply disruption? (If you have difficulty in answering this question, please skip.)
Mr. Sadamori: In general terms, countries with indigenous oil and gas resources with no or small level of imports are more resilient than net importers. But, it depends on the cause or nature of disruption. Also, even if a country is a net importer, with ample strategic reserves, tight set of policies, and good maintenance of the response mechanism, the country can improve its resilience.

APERC: We appreciate the support IEA has extended to us during the APEC Oil and Gas Security forum, which you have participated in, and the APEC Oil

The 1st APEC Oil and Gas Security Network Forum

The Asia Pacific Energy Research Centre (APERC) hosted the "1st APEC Oil and Gas Security Network Forum" (OGSNF) on April 23-24, 2015 in Kitakyushu City, Japan. The forum was part of the "APEC Oil and Gas Security Initiative (OGSI)" which was conceptualized and launched last year.

The forum was participated in by the representatives of the APEC Oil and Gas Security Network (APEC-OGSN) from 16 of the APEC member economies and experts from international/regional organizations such as IEA, ASCOPE, HAPUA and ERIA. It served as a venue to gather and share information and experiences from the members, relevant information on emergency responses to oil and gas supply disruption.

The APERC Secretariat also presented the current and future activities of the OGSI including the Oil and Gas Security Studies (OGSS) one of which is the "Review of APEC Oil Supply Security" found on page 6.

The last day of the forum was a visit to Shirashima Oil Storage Base, a floating oil storage facility of Japan.
(Related story on the facility can be found on page 8)



The First Oil and Gas Security Network Forum (23-24 April 2015, Kitakyushu, Japan)

12th International JODI Conference

The 12th International JODI Conference was held last 8-10 April 2015 in New Delhi, India. With the theme "Lessons Learned and The Shared Path Forward" the conference commemorates ten years of the JODI-OG Database and one year of the JODI-Gas Database. The conference was participated in by experts of respective member countries as well as JODI partner organizations including APEC.

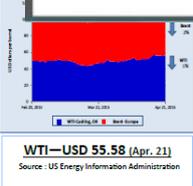
JODI was first launched in 2001, the primary goal was not to build a database but to raise the awareness of all oil market players to the need for more transparency in oil market data. The process expanded and more countries participated and the database was established and was opened to the public.

The Conference then served as a venue in convening market actors who contributed to the enhanced energy data transparency at various stages of the JODI data supply chain: industry representatives, professionals from national energy statistics offices, the JODI Partners themselves, and market analysts who use the JODI data. By bringing all of these stakeholders together, the Conference helped in facilitating better communication and improved cooperation among them.

For more information on JODI you may visit <https://www.jodidata.org/>

Photo and Photo Story

The 1st APEC Oil and Gas Security Network Forum
Experts and participants in the 1st Oil and Gas Security Network Forum held last 23 April 2015 in Kita-Kyushu, Japan.
Photo Courtesy of APERC Secretariat



OIL SUBSIDY



Energy Council-National Energy M



WAY FORWARD

Interview

- Prof. Paul Stevens - 4th Issue
- Suggestions/Volunteers?

APEC Issues

- Written by Editorial Board and colleagues from IEEJ
- Suggestions/Volunteers?

Global Issues

- Middle East, Ukraine, Iraq
- Suggestions?



1st Oil and Gas Security Forum (2015)



OGSF BACKGROUND



- ❖ 1st APEC Oil and Gas Security Network Forum (OGSF) held last April 23-24, 2015 in Kitakyushu City, Japan;
- ❖ participated in by the representatives of the APEC Oil and Gas Security Network (APEC –OGSN) from 16 of the APEC member economies as well as experts from international/regional organizations such as IEA, ASCOPE, HAPUA and ERIA;
- ❖ Served as a venue to gather and share information and experiences from the members, relevant information on emergency responses to oil and gas supply disruption;
- ❖ APERC Secretariat also presented the current and future activities of the OGS

SITE VISIT

- ❖ Shirashima National Oil Stockpiling Base -the world's largest floating oil storage facility located about 8 km off the coast of Kitakyushu.
 - Construction completed in 1996;
 - Crude oil for about 10 days of annual consumption of Japan is stored;
 - Total amount of Storage capacity is 5.6 million kl (700,000 kl x 8 barges);
 - No emergency experienced so far.

- Shirashima National Oil Stockpiling Base



Shirashima Pavilion

Mainland Office

Meeting venue (RIHGA
Royal Hotel Kokura)



NEXT STEPS

- ❖ OGSS: Requesting information and comments
 - ✓ Oil Supply Emergency Preparedness Policies and Procedure
 - ✓ Oil and Gas Security Exercise Model Procedure (EMP)

- ❖ OGSE: To be held in Manila, Philippines in December 2015

- ❖ OGS Newsletter: Issue No. 3 was released on May 1, 4th Issue coming by end of June 2015

- ❖ OGSF
 - ✓ Next Forum in 2016 - Venue (?)
 - ✓ APERC Website – OGS information including 1st and 2nd OGSE forum will be uploaded
 - ✓ OGSN Members - continue updating of the list





THANK YOU FOR YOUR ATTENTION

