



The 55th Meeting of APEC Energy Working Group (EWG)

Hong Kong, China, 16-17 May, 2018

12.d. Oil and Gas Security Initiative (OGSI)

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12.d. (1) Introduction of OGS I

- **APEC Oil & Gas Security Initiative (OGSI)** was approved as an APEC Self-Funded project in EWG 48 in November 2014 in Port Moresby, Papua New Guinea.
- APEC Energy Ministers instructed “the **EWG**, with the support of **APERC** and other organizations such as IEA to strengthen oil and gas emergency response mechanisms in the APEC region through **OGSI**” in the 12th EMM in October 2015 in Cebu, the Philippines.
- **OGSI consists of three pillars:**
 - **Oil & Gas Security Exercise (OGSE)** on a voluntary basis;
 - **Oil & Gas Security Network (OGSN)** by officials in charge of oil and gas security policy in each Economy; and
 - **Oil & Gas Security Studies (OGSS)** on research topics related to oil and gas security in the APEC region.

12.d. (2) Progress of OGSI: OGSE in Peru

- **The Final Report of OGSE in Peru (6-8 November 2017) was completed and will be published soon.**
- **Around 30 representatives from government agencies, energy companies and academic institutions participated the exercise.**
- **Six invited experts formed the Expert Review Team – OLADE, IADB, ERIA, US-DOE, Japan(JOGMEC), and a Peruvian Academic Institution**



12.d. (2) Progress of OGSI: OGSE in Peru (cont'd)

	Expert Review Team	Organization
1	Ms. Sylvia Larrea	Inter-American Development Bank (IADB)
2	Ms. Martha Vides Lozano	Latin American Energy Organization (OLADE)
3	Dr. Phoumin Han	Economic Research Institute for ASEAN and East Asia (ERIA)
4	Mr. John Powell	U.S. Department of Energy
5	Mr. Hiroaki Maruyama	Japan Oil, Gas and Metals National Corporation
6	Dr. Pedro Gamio	Institute of Science of Nature, Territory and Renewable Energies, Pontifical Catholic University of Peru

	APERC Secretariat	
1	Mr. Takato Ojimi	President
2	Dr. Kazutomo Irie	General Manager
3	Mr. Diego Rivera Rivota	Researcher
4	Mr. Muhamad Izham Abd. Shukor	Researcher
5	Ms. Takako Hannon	Research Staff


12.d. (2) Progress of OGSI: OGSE in Peru (cont'd)

- A separated **oil emergency scenario** and **gas emergency scenario** were presented to the participants. Both scenarios were caused by **natural disasters** (earthquake and landslide).
- Some recommendations by experts were:
 - Redesigning carefully its **emergency management organisation** for disruptions in oil and gas supply.
 - Setting up a **task force** for energy emergency situations.
 - Developing **clear roles** for organisations during energy supply emergencies.
 - Setting up an organisation responsible for **oil products emergency stocks**.
 - Establishing a **robust database** with detailed information on electricity and hydrocarbons supply.
 - Assessing **demand elasticity** and **the economic and financial costs** of an emergency.

12.d. (2) Progress of OGSI: OGSE in Peru (cont'd)

- **Some recommendations by experts (continued):**
 - **Reactivating the construction of the Gasoducto Sur Peruano gas pipeline.**
 - **Diversifying power generation sources to reduce gas dependency, especially by promoting renewable sources.**
 - **Conducting a thorough analysis for building a Floating Storage and Regasification Unit (FSRU) to import gas.**
 - **Developing an international cooperation framework to import fuels during emergencies.**
- **While the recommended measures may involve considerable investment and challenges for Peru, recovery and emergency losses without preparedness are not only greater but could also be catastrophic.**

12.d. (3) Progress of OGSi: OGSN



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APEC Oil and Gas Security Newsletter

Floating Liquefaction Can Enhance Supply Security

by Yoshikazu Kobayashi

It is widely known that the adoption of Floating Storage and Regasification Unit (FSRU) has significantly expanded the global LNG market by providing a quick and relatively low-cost solution for LNG import. Although not deployed as extensively as FSRU, floating liquefaction technology is also becoming a practical option of monetizing smaller and remote natural gas reserves and thus, of raising the supply capacity in the world.

Malaysia's Petronas Floating LNG (PFLNG) whose liquefaction capacity is 1.2 million tons per annum (mtpa) is so far the only commercialized project; but in 2018, two new floating liquefaction projects, namely Australia's Prelude (3.6 mtpa) and Cameroon LNG (2.8 mtpa) are scheduled to start up. Malaysia's Petronas plans to add another 1.5 mtpa unit in 2020, and ENI, an Italian oil and gas company, is constructing 3.3 mtpa Coral LNG project with floating liquefaction technology. It has indeed become a realistic means in liquefaction plant development.

Floating liquefaction technology is usually applied to natural gas fields of smaller reserves at remote distance from onshore. Because it does not require securing land, it can significantly shorten the construction period and reduce environmental footprint. It can be a sensible option in countries where there is a shortage of local labor force because most of the liquefaction facilities are built at shipyard abroad. In Asia Pacific, there is a number of "stranded" natural gas fields which is remote from demand centers and is not large enough to be commercialized by conventional liquefaction technology. Floating liquefaction is therefore, an effective tool to develop and monetize such reserves.

Enhancing supply capacity, especially in Asia Pacific, greatly improves the regional energy security to ensure sufficient supply to meet growing LNG demand. Floating liquefaction also helps *(next page)*


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Highlights

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- Upcoming Event • IEJ/APERC International Energy Symposium
- Photo and Photo Story
- Crude Oil Spot Price (WTI and Brent)
- Natural Gas Spot Price (Henry Hub)

CRUDE OIL SPOT PRICES

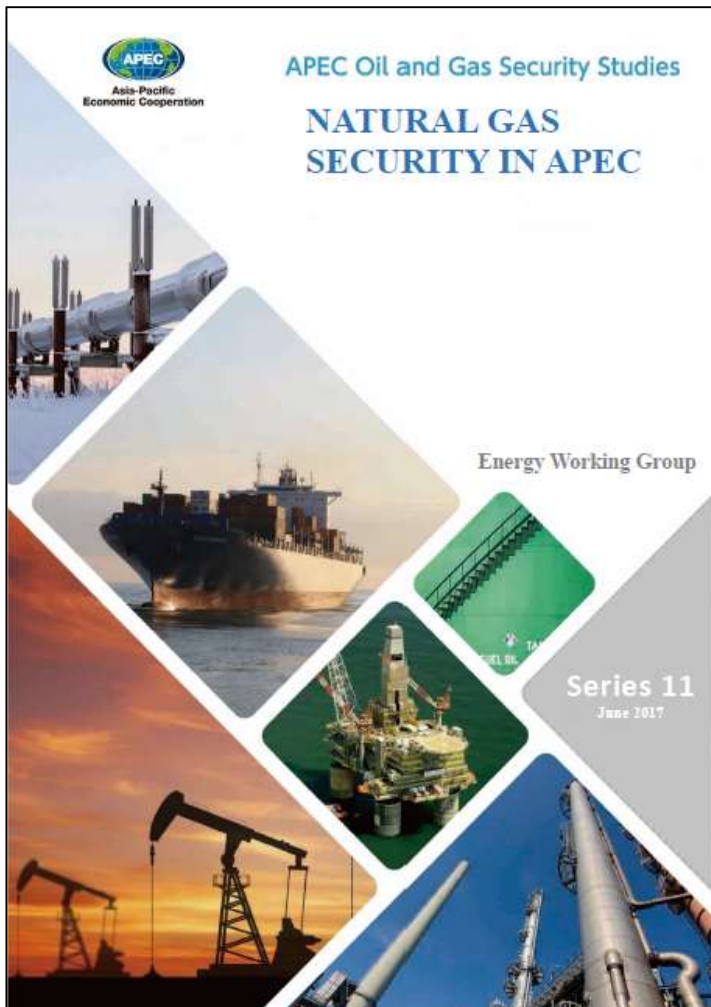


WTI—USD 66.23 (Apr. 20)
Source: US Energy Information Administration

- **21 bi-monthly OGS Newsletters were already issued and circulated since December 2014.**
- **The 4th Oil and Gas Security Forum was held in Tokyo, Japan on 7-8 March in conjunction with EGCFE Oil & Gas Meeting on 9 March.**



12.d. (4) Progress of OGSI: OGSS



- In addition to eleven studies already published, **three studies** will be published after endorsement by EWG.
 - Energy Security of APEC Economies in a Changing Refinery Environment
 - Investments in the Natural Gas Supply-chain in Asia Pacific
 - Oil and Gas Security Indexation 2017 Update
- **Two studies** are currently undertaken.
 - Emerging energy security risks in changing global energy landscape
 - Small-scale LNG in the Asia-Pacific region

1. OGSE

- **Chile has shown its interest in hosting OGSE, but it is not decided.**
- **Update and revise the Exercise Model Procedure (EMP) based on best practice from past exercises in the Philippines, Australia and Peru, expected to be completed before year end.**

2. OGSN

- **The 22nd issue of OGS Newsletter will be released in June 2018.**
- **The 5th OGSN Forum will be held in April 2019 in Sendai City, Japan in conjunction with EGCFE Oil & Gas Meeting [TBC].**

3. OGSS

- **2 studies now underway and will be completed in the first half of 2019.**

**APERC welcomes all eligible economies to volunteer
hosting future OGSE.**

If interested, please contact: master@aperc.iecej.or.jp.



Thank you for your kind attention

<http://aperc.ieej.or.jp/>