

<u>Report on the 5th LNG Supply, Storage & Transportation Philippines Forum 2018, 24 – 26th October 2018, Manila, Philippines</u>

This 5th annual LNG event was held at SMX AURA convention centre in Manila, Philippines. It was organized by All Events Group (AEG), Singapore. The event comprised of one day Master Class workshop on 24th Oct 2018, followed by two days forum. The forum was attended by 125 delegates and the opening and keynote address was given by Ms. Caron Aicitel E. Lascano, Assistant Secretary, Department of Energy, Philippines. This event was endorsed by ANGVA and conference sponsors were Cheniere Energy Inc, USA and Wison Offshore & Marine, China.



Top: At the 2 Days Forum

Highlights of presentations:

Philippines

- i. Malampaya Gas Field is the only source of natural gas (averaged production of 450 mmscfd) for Philippines with existing six (6) Gas Sales & Purchase Agreement (GSPA) supplying gas to:
 - a. 500 MW San Lorenzo PP (First Gen.
 - b. 1000 MW Sta Rita PP (First Gen.
 - c. 1200 MW Ilijan PP (KEPCO).
 - d. 414 MW San Gabriel (First Gen)
 - e. 97 MW Avion (First Gen).
 - f. 17 MW own use Shell Pilipinas Oil Refinery.
- ii. Malampaya is expected to deplete starting 2022 and its service contract will expire in 2024. Supply could go as far as 2027 but it does not have enough gas for future natural gas requirements for Philippines.
- iii. Malampaya's shutdown may lead to high cost of electricity, or worst, massive power outages throughout Luzon when no other source of natural gas is made available. Hence it critical that liquefied natural gas (LNG) be imported in the near term to ensure supply security and sustainability.



iv. The Philippine energy sector continuously supports the restructuring & deregulation of the power industry as mandated by the *Electric Power Industry Reform Act* ("EPIRA") of 2001. EPIRA has led to the liberalization of the power markets in Philippines.

Others

- i. It was reported that in 2017, LNG supply grew by 11% (30 Mt), while demand also rose due to policy, weather and intra-fuel competition reasons.
- ii. It was forecasted that global LNG demand to grow at 4% CAGR during 2018-35 with requirements of 65 mmtpa of new supply by 2025 coming mainly from North America, Qatar, Russia, Mozambique and Oceania.
- iii. The year 2017 has many firsts for Floating LNG (FLNG):
 - a. First FLNG cargo PETRONAS become the first company in the world to successfully deliver FLNG car in March 2017.
 - b. First converted FLNG facility set sail Golar completed conversion of an LNG vessel into an FLNG facility, on time and budget. Arrived in Cameroon late-2017 with first LNG cargo shipped in May 2018.
 - c. First large-scale FLNG facility was completed Shell's USD14 billion Prelude FLNG set sail from Korean yards and arrived on site in Australia.
 - d. First Deepwater FLNG project sanctioned ENI's Coral FLNG in Mozambique took FID. The only project to be sanctioned in 2017.
- iv. It was pointed that the top 5 LNG importing countries and regions in 2035 will be in Asia i.e. China, Japan, India, Korea and Taiwan, with top suppliers to be USA, Qatar, Australia, Russia and Mozambique.
- v. U.S. LNG exports is forging a more competitive, more diverse, and more resilient LNG trade system through:
 - a. Sustainable low-cost supply over the long-run.
 - b. Destination-free, flexible volumes.
 - c. Growing liquidity.
 - d. FOB and DES hub formation.
 - e. Price diversity and greater price transparency.
- vi. It pointed out that a total of 840 TCF of onshore natural gas resources in US has a break-even Henry Hub price of below USD3/mmbtu and a total of 1,250 TCF has break-even price of below USD4/mmbtu.
- vii. The LNG market outlook towards 2030 will be:
 - a. robust with Asian countries driving global market growth
 - b. US LNG will account for 20 % in global LNG supply by 2030.
 - c. US LNG will potentially reduce high oil price risk in pricing formula.

Reported by: Lee Giok Seng, Executive Director, ANGVA, 19th November 2018.