

RSIS Commentary is a platform to provide timely and, where appropriate, policy-relevant commentary and analysis of topical issues and contemporary developments. The views of the authors are their own and do not represent the official position of the S. Rajaratnam School of International Studies, NTU. These commentaries may be reproduced electronically or in print with prior permission from RSIS and due recognition to the author(s) and RSIS. Please email: RSISPublications@ntu.edu.sg for feedback to the Editor RSIS Commentary, Yang Razali Kassim.

Singapore as Asia's LNG Hub: Bridge with East Africa?

By Otavio Veras

Synopsis

As Singapore grows as an oil and LNG trading hub in Asia, East Africa is developing its huge potential as a natural gas producer. Singapore can play a bridging role, connecting LNG producers in East Africa to buyers in Asia.

Commentary

THE GROWING importance of adopting cleaner ways to generate electricity worldwide has brought LNG into the spotlight as one of the most affordable and less environmentally damaging fuels. Singapore, with its strategic location, has daring plans to grow into the preferred trading hub for LNG in Asia.

Singapore is already Asia's leading oil pricing and oil trading hub and therefore already has considerable infrastructure in place: it gathers major buyers, sellers and decision makers in the same place; it has a pool of highly-skilled human capital in a multi-lingual environment; it has wide availability of financial and trading instruments; it has internationally recognised legal, regulatory and tax frameworks and attractive fiscal policies and incentives.

Singapore's LNG game plan

Singapore imported its first LNG in March 2013 and currently has three storage tanks with a total throughput capacity of six million tonnes per annum (Mtpa). Further expansion began by the end of 2014, with regasification facilities to be completed by 2017 and a fourth storage tank by 2018, increasing the annual capacity to 11 Mtpa.

In December 2014, the Singapore Energy Market Authority (EMA) received nine bids

from suppliers, from which three will be shortlisted to become LNG aggregators in the city-state. Diversification is important as 95% of Singapore's electricity is generated through natural gas.

By end of January 2016, Singapore Exchange (SGX) launched a mix of financial instruments to allow more flexibility on the contracts for liquefied natural gas. These contracts will be the first based on a price index created in Singapore and expected to become the new benchmark for LNG pricing in Asia. It is named after Singapore's most famous drink: SLInG. The Singapore SLInG will be used to develop products such as financial swaps for hedging purposes, and eventually in developing a physical delivery mechanism in Asia.

The plan to become an LNG hub in the region gains momentum with the growing trend in Southeast Asia to adopt small-scale LNG solutions. The region has numerous small and remote islands, and as such small LNG processing plants would be the way to provide gas to locations not connected to the gas pipelines network.

Singapore's Storage Capacity and East African Natural Gas

Singapore will use its growing storage capacity to receive large LNG shipments and distribute them to smaller LNG tankers that will then supply the regional market. The past years saw a growing demand for LNG contracts on volumes smaller than one million tonnes a year. Pavilion Energy, the LNG unit of Singapore's state-owned investment company Temasek Holdings, and companies such as Shell, Tokyo Gas and Indonesian Pertamina, are investing heavily in small-scale LNG solutions.

Currently, Singapore imports and trades LNG from Australia. In the near future the city-state will take advantage of the proximity to East Africa and become a large importer of LNG from Mozambique and Tanzania. These two countries started investing in natural gas exploration, and are now just a few years away from having all the infrastructure and production ready to start pumping natural gas to the LNG tankers in port terminals in the region.

Mozambique and Tanzania, both facing the Indian Ocean on the East side of Africa, hold enormous reserves of natural gas. Mozambique has proven reserves of 100 trillion cubic feet, and in 2014 it ranked 14th among the countries with the largest natural gas reserves, according to the Central Intelligence Agency (CIA). Tanzania, with reserves of 55 trillion cubic feet, has enough gas to meet about 11 years of demand from U.S. homes.

The Singapore Link

The huge potential resting in both countries' subsurface is still to be fully exploited. Currently, Mozambique's natural gas production is only 152 Billion cubic feet per year, making the country the 54th largest producer in the world. Tanzania ranks much lower, producing only 35 Billion cubic feet of gas per year.

More than US\$30 billion is expected to be invested in the natural gas sector in Mozambique to build capacity to produce 20 million tonnes per year of liquefied

natural gas (LNG), with first exports due to start in 2019-2020. In Tanzania, Petroleum Development Corp. has plans to construct an LNG plant with a capacity of processing 10 million tons of gas per year, to be completed by 2020. McKinsey estimates a regional potential of about 400GW of gas-generated power by 2040, with Mozambique, Nigeria and Tanzania accounting for 60% of the total.

Singapore will be well-placed to link the natural gas producers in East Africa to buyers in Asia, providing an organised marketplace for LNG in the region based on the switchboard business model, intermediating between suppliers and buyers. Mozambique and Tanzania will be the main players in East Africa, developing their natural gas production capabilities to meet the growing demand for this type of fuel in Asia. Both these African countries have endured high levels of poverty, and the exploitation of their newly discovered gas deposits will go a long way to address their developmental needs.

Singapore will be an excellent bridge between East and West. By taking advantage of its strategic position and by heavily investing in building up storage capacity for LNG, the city-state will have a strong potential to become the main LNG trading and distribution point between Asia and East Africa.

Otavio Veras is an adjunct researcher of the NTU-SBF Centre for African Studies, a trilateral platform for government, business and academia to promote knowledge and expertise on Africa, established by Nanyang Technological University and the Singapore Business Federation. This article was written specially for RSIS Commentary.
