DAWN

LNG: a contrarian view

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Pakistan has emerged on the international scene as a significant importer of liquefied natural gas (LNG). As of 2017, Pakistan was the sixth largest LNG market in Asia with imports of 4.6 million tonnes accounting for 1.6 per cent of global imports.

Moreover, Pakistan added one out of five re-gasification terminals commissioned internationally by adding a floating storage re-gasification unit (FSRU) to its supply chain.

The nation has opted for imported LNG to plug energy gaps despite being host to the second largest submarine basin in the world with potentially huge but undiscovered oil and gas reservoirs. It makes sense to gain some perspective on the LNG industry to enable optimised decision-making locally.

LNG is liquefied natural gas maintained at -162 degrees Celsius under normal atmospheric pressure, which reduces its volume by 1/600th. Liquefaction technology has enabled storage and transportation of natural gas and allowed stranded gas fields to be brought into production and development so much so that 290MT LNG was imported internationally in 2017, a growth of 10pc over 2016.

Over the last couple of decades, three main markets for LNG have emerged: Asia Pacific, Europe and North America/Atlantic. Asia Pacific is the largest LNG market with Japan, China and South Korea among the largest importers.

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As LNG projects are expected to produce for up to 40-50 years, LNG is primarily sold as per long-term contracts extending to 20-25 years with a take-or-pay obligation (base-load sales). Therefore, a typical LNG project has to secure consistent natural gas supplies for up to 25 years, which requires it to be built near huge reservoirs.

Proper commercial structuring, at both export and import stages, is extremely critical and underpins the success of any LNG project over the long term. To put things in perspective, approximate costs of Chevron's Gorgon project and Inpex's Ichthys project are $54 billion and $35bn, respectively.

Over the years, three basic commercial structures have evolved in LNG trade with hybrids in between. These main structures are integrated, tolling and merchant structures and apply to both liquefaction and re-gasification facilities.

As Pakistan has opted for LNG imports to meet energy shortages exacerbated due to a lack of timely action on our part, it would make sense to see what resource potential Pakistan has in a region that constitutes the largest LNG market in the world (73pc global share).
Natural gas constitutes approximately 25pc of global primary energy demand and is growing as the world moves towards cleaner fuels. Moreover, Pakistan has the second largest submarine fan system in the world (Indus basin) with up to 10 kilometres of sediment accumulation. Such accumulations are recognised for huge offshore oil and gas reservoirs worldwide.
Pakistan is also blessed with the Makran offshore basin, which is an oceanic and continental crust subduction zone with deep water trenches and volcanic activity. Therefore, we can assume with a high degree of probability that Pakistan potentially has huge offshore oil and gas deposits waiting to be discovered. We are also closer to main LNG markets than Qatar, which happens to be the largest LNG exporter in the world with 27pc market share.
Therefore, can we work with a contrarian vision for the LNG industry in Pakistan? This vision is contrary to the view of our former prime minister Shahid Khaqan Abbasi who told Reuters, "Within five years, I don't see any reason why we should not be beyond 30MT (in annual LNG imports). We will be one of the top five markets in the world" (Pakistan sees bigger LNG profile; imports to surge by 2022).
Are we playing to our potential by declaring that Pakistan will be the fifth largest LNG import market in the world? An emphatic answer would be in the negative. Can we visualise Pakistan as having discovered a huge oil/gas reservoir offshore in view of the offshore geology that the country has, and working on developing an export-based LNG value chain? That would be playing to our strength rather than focusing on making Pakistan a top market for LNG imports. Recent rupee devaluation is an epic judgement on our trade balance.
However, this is a long-term endeavour, potentially spread over the next 20 years or so, fraught with financial and commercial risks, requiring new thought paradigms and a changed risk perspective. But big oil and gas was never a business for the risk averse.
A small first step towards realising this vision could be revisiting the fiscal and regulatory regime for the upstream exploration and production sector in view of changing energy markets.

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Published in Dawn, The Business and Finance Weekly, August 6th, 2018