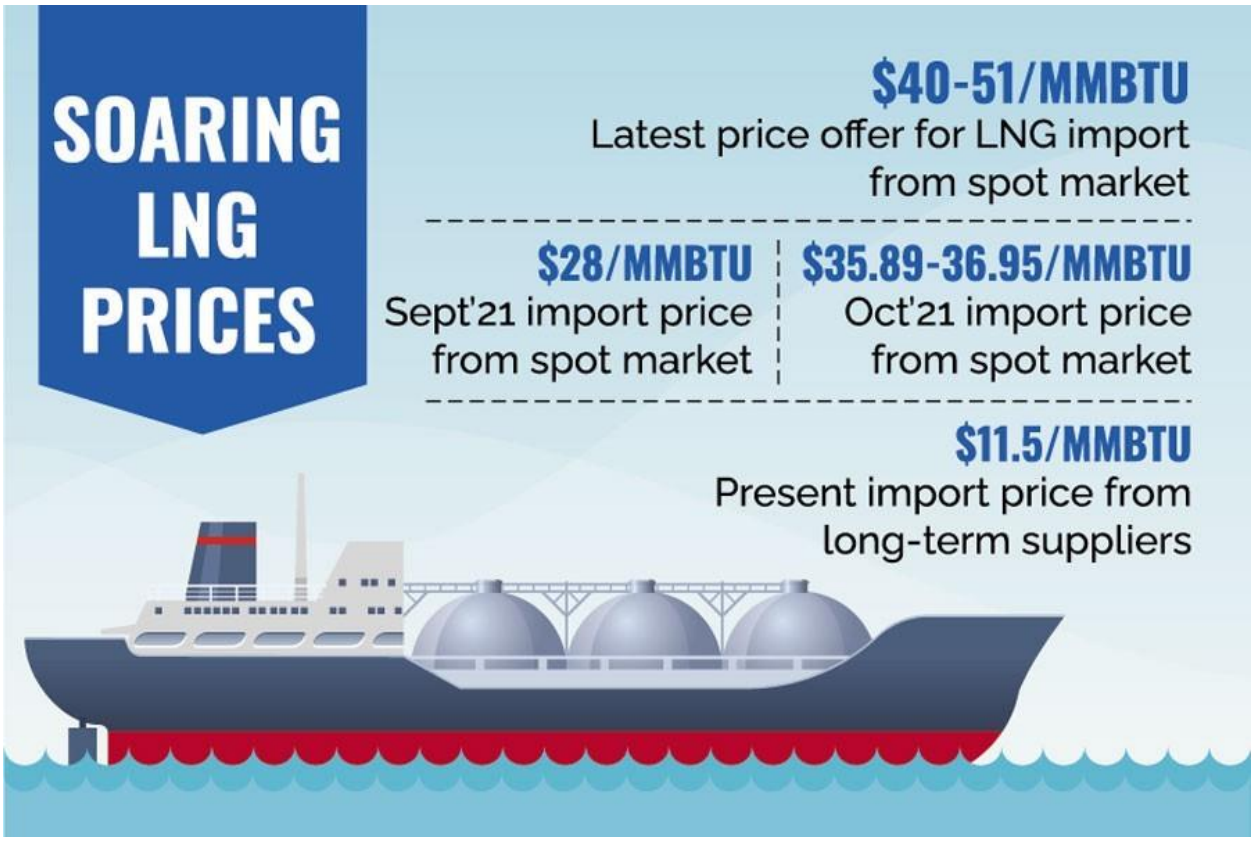
Record Natural Gas Prices and Imminent Climate Impacts For Bangladesh

Natural gas in Bangladesh hit record highs in 2021. This is a similar story around the world where rising demand has created an unstable market for importing LNG. This is due partly to the world's goal of moving towards being cleaner energy consumers. We are collectively trying to push the days of hydrocarbons behind us and embrace the power of clean, sustainable energy. This won't happen overnight, but the process is well underway.

As an intermediate between coal and zero emission energy sources, liquefied natural gas (LNG) is seen as a transition fuel. It's cleaner than traditional fossil fuels but not as clean as renewables.

While LNG can be an effective transition fuel, that is all it is. Natural gas is not a solution for climate change. And for Bangladesh there has never been a more critical time to build renewable energy capacity. The recent February 2022 IPCC report predicts dire climate change related economic and social impacts by the end of the century.

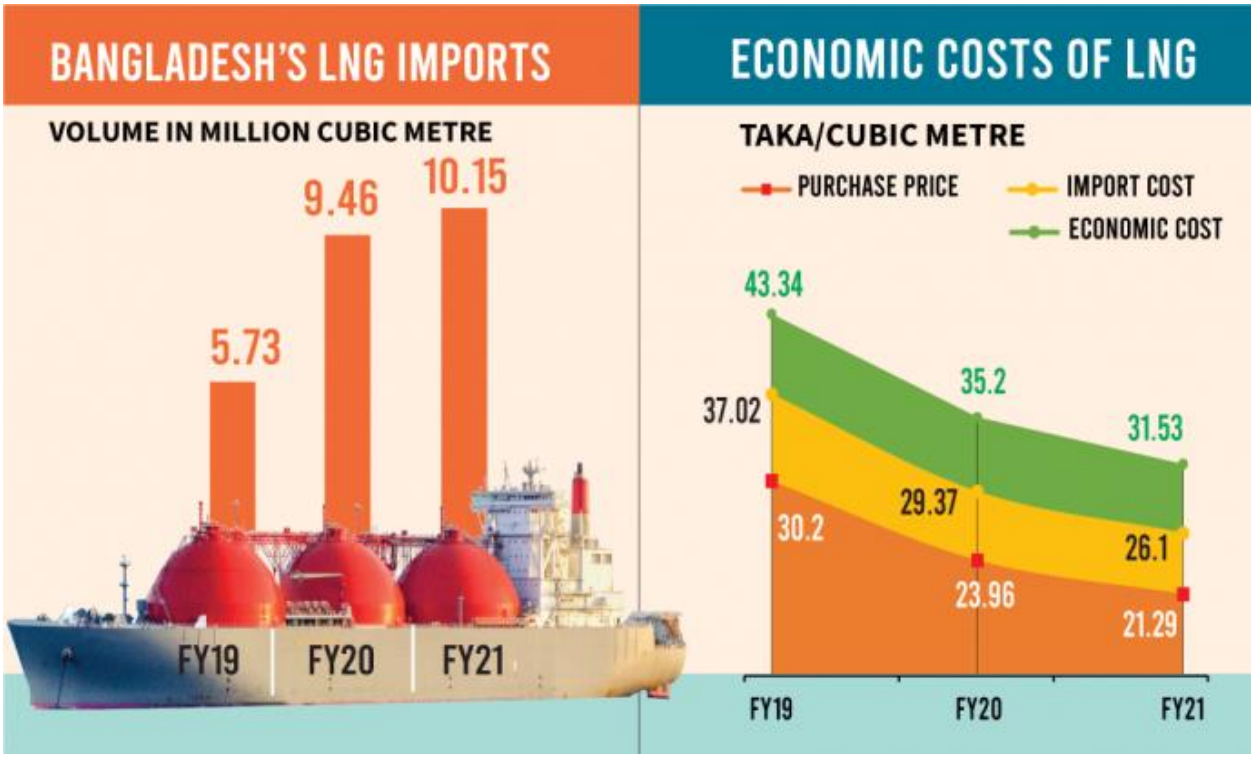


Source: [The Financial Express]

A Look at the LNG Market in 2021

A surge in demand was met with a surge in prices. Spot LNG prices were as high as $56/MMBtu in October before settling down to around $35/MMBtu.

Bangladesh paid $35.89/MMBtu and $36.95/MMBtu in October 2021 for spot LNG cargoes. Instability in the LNG market creates a lot of uncertainty for LNG importers.



Source: [The Business Standard]

Bangladesh has fixed LNG contracts that come at a lower rate but they use spot pricing to account for 6% of its natural gas imports. With the wild swings of the 2021 LNG spot market, budgeting for imports to reach energy demand becomes a near impossible task.

A low gas inventory in Europe created a lot of competition in the Asian LNG market as countries competed to secure their energy sources.

This led Bangladesh, along with other Asian countries, to explore the possibility of increasing local LNG production so as not to succumb to the spot market.

Ramping Up Local LNG Production

The Bangladesh government has been exploring contracts to build its first permanent LNG terminal. Having its own LNG terminal would bring down transport costs and double the country's capacity for LNG imports. This proposal would still make Bangladesh susceptible to the severe swings in prices in the spot LNG market.

According to a study by the Center for Policy Dialogue (CPD), the price of LNG in the fiscal year 2021-2022 is expected to be 24 times more expensive than local production.

If Bangladesh raises local production by 5-7% they may be able to avoid the volatile spot market. A joint operation with India's ONGC Videsh was executed in September 2021 for an exploratory well offshore in Bangladesh with the hopes of being able to produce more LNG locally.

Ensuring Effective Distribution

Another issue for Bangladesh is that a large portion of its LNG disappears as systems loss. The global average for LNG systems loss is 0.5-1.0%. In Bangladesh, that number is alarmingly high at 7-10%.

Some loss of natural gas is expected in a nation's energy grid. Bangladesh, however, has a big problem with thieves siphoning gas off the main lines through illegal gas connections. Cracking down on gas theft is an important measure to take, especially when relying on expensive LNG imports to meet energy demand.

Should Bangladesh Focus on Renewables?

The best long-term solution for Bangladesh is to begin shifting its focus to renewable energies. As of 2020, only 3% of Bangladesh's energy mix came from renewables like solar and wind.

IPCC Report and Bangladesh

Source: USIP

This is underscored by the most recent IPCC report released in February of 2022, which outlined serious economic consequences for Bangladesh directly resulting from climate change. The report found that climate change may lead Bangladesh to lose between 2% to 9% of its GDP by midcentury. This is being driven by increased extreme heat, sea-level rise, and unpredictable weather events.

Even more alarming, the report predicts that 4 million people are at risk of losing their homes and 25% of the country's population will be living in water scarcity by 2050.

In terms of agriculture, parts of the country will see up to a 40% drop in agricultural output. More specifically, this will take the form of a decrease in rice production up to 17% and wheat production up to 61% in the southern parts of the country. This is where 2 million people are dependent on these staples for food.

The Future of Bangladesh's Energy Mix

The volatility in the spot LNG market is a sign that Bangladesh needs to move away from fossil fuels in general. Furthermore, these prices, coupled with the world distancing itself from fossil fuel energy, makes it more difficult to secure affordable LNG. Recognized as a short-term solution to energy demand in Bangladesh, and Asia more largely, focus should be shifted to growing renewable energy capacity in the region.

Already feeling the effects of climate change more than most countries, Bangladesh should be looking to develop its renewable energy grid to prevent recurring complications with fossil fuel availability down the road and limit further climate impacts.