



PERSPECTIVE

Energy concerns centre stage in Asia-Pacific



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Reliable and sustainable sources of energy are key to the long-term economic growth of members of the Association of Southeast Asian Nations (ASEAN). Yet, over the coming decades the region's oil production will fall and production of coal, along with other sources of hydrocarbon fuels, will come under increasing environmental pressure, thereby fuelling a growing reliance on energy imports.

Infrastructure development has continued to be hampered by political unrest, regulatory uncertainty and difficult operating environments. Electricity demand as a whole has been exceeding supply by 5–7%/y and is showing no signs of improving as urbanisation rapidly accelerates energy requirements. It is anticipated that there will be some 100–150mn new middle-class consumers introduced into the ASEAN market place by 2030, with the region as a whole becoming the world's fourth largest energy consumer after China, India and the US.

Indigenous natural gas resources remain prolific and have the potential to play a key role in enhancing the region's energy security as well as its transition towards a low carbon economy. However, the pace of market development remains hampered by ongoing regulatory uncertainty and a lack of any real effort to develop cooperation and coordination aimed at regional LNG trade through shared investment in market delivery infrastructure, including transnational connectivity.

Likewise, the rapid growth of alternative forms of energy – including, but not limited to renewables – is held back by regulatory uncertainty and a lack of any real enthusiasm to develop a coordinated approach. This is mainly driven by a tendency towards both continued promotion of 'energy nationalism' and preferential treatment for state-owned and/or sponsored

energy players despite operational and financial limitations.

Meanwhile, the rapidly growing energy requirements of the Asia-Pacific's two massive and rapidly developing neighbours – China and India – are creating additional stress. China has promoted itself as the leading source of infrastructure funding and assistance in the region, but, increasingly, India is positioning itself as China's direct competitor.

In addition to its land-based infrastructure projects, China has been working on its maritime-focused 'String of Pearls' initiative, which will connect China to North Africa and the Middle East through a series of ports along the Indian Ocean. However, India – along with other countries, such as Japan and South Korea – is increasingly looking at ways to counter this growing economic threat, both in terms of physical security as well as offering alternative sources of investment and support for developing Asia-Pacific countries such as Cambodia, Myanmar and Vietnam.

Within this context, regional security of supply is becoming an increasingly important dialogue for the ASEAN region as a whole.

Plug and play solution

Reverting to the LNG story, Asia's demand for LNG will roughly double in the next five years, led by China's policy to decrease coal use – China's LNG imports increased 45% in 2017. Add to this the relative cost effectiveness of floating regasification facilities and an LNG hub becomes an attractive 'plug and play' solution, with LNG-to-power one of the most compelling components.

Many ASEAN countries have traditionally been LNG exporters, but this is now reversing as these countries reserve ever-increasing amounts of LNG for local use. Indonesia is set to become a net importer by 2022, while the Philippines is building its first ever LNG hub at Batangas Bay. Thailand is constructing a floating hub in its southern joint development area with Malaysia. There is much scope for cooperation.

Singapore, in its capacity as ASEAN Chair, has been pursuing initiatives aimed at building closer

regional cooperation and capabilities in areas such as energy efficiency, natural gas and renewable energy technology development and deployment, with a view to improving and, where possible, standardising regional regulatory oversight. Such an approach has the potential to improve the attractiveness of financing energy and related infrastructure investments.

Singapore is also working with international energy organisations and financial institutions to build sustainable energy investment solutions for the region, with aspirations to become a significant global player in green finance.

Energy efficiency is also increasingly seen as a crucial component of securing sustainable regional growth, particularly for the more rapidly developing economies that are experiencing rapid urbanisation.

Development of 'smart cities' lies at the heart of the region's sustainability and energy strategies, with building and construction remaining a significant growth sector as well as one of the biggest energy consumers for the foreseeable future.

After a period of experimentation, it is becoming evident that the application of new technology along with re-design/re-integration of utilities and services provides massive scope for energy efficiency improvement and smarter utilisation of urban systems' facilities. Adoption of these new systems and technologies will significantly disrupt existing industries even as they present substantial market opportunities for others.

Governments throughout the Asia-Pacific are beginning to comprehend the scale of regulatory change required and the need for the development of a more coordinated approach towards developing 'fit-for-purpose' development guidelines and standards.

The Energy Institute is looking forward to developing strategic relationships and sharing best practice amongst energy professionals engaged in the massive global energy transformation underway. ●

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