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S.E.A. VIEW

Hunger for energy and pull of N-power

By Nur Azha Putra For The Straits Times

IN JANUARY, Vietnam announced its intention to delay the construction of its first nuclear power plant due to safety concerns. This was a good move, not only for Hanoi, but also for South-east Asia in general.

With Vietnam slowing down, the pressure on its neighbours to embark on a regional nuclear energy race at the expense of safety concerns has declined.

The move has bought more time for South-east Asian states to work together, through Asean, to strengthen existing regional initiatives on nuclear energy safety and security.

Similar issues will be discussed at a Nuclear Security Summit at The Hague on March 24 and 25.

That said, nuclear energy makes sense for South-east Asia's energy-hungry economies. The energy needs of the Asean member states are set to grow sharply in the foreseeable future, according to the South-east Asia Energy Outlook 2013 report.

The energy needs of Vietnam, for instance, will grow at an annual rate of at least 7 per cent through to 2030.

Meanwhile, the energy needs of Malaysia, Indonesia, Thailand, Myanmar and the Philippines will each grow 4 per cent to 9 per cent per annum under a business- as-usual scenario over the same time period. In total, Southeast Asia's energy demands are set to increase by 85 per cent between today and 2035.

The growth of energy demand in the region is spurred by a combination of factors, including rising population growth, rural electrification and the growth of the transportation and manufacturing industries. The main energy sources for most South-east Asian countries are fossil fuels such as oil, gas and coal.

Most of these countries believe that it makes economic sense to include nuclear power in their national energy mix in the future.

- First, they believe that nuclear energy is more environmentally friendly compared to fossil fuels.
- Second, despite the massive capital outlays, electricity generated from nuclear power is cheap in the long run and the price inelastic. It is, therefore, resilient to the uncertainties of the global economy.
- Third, there is an abundance of uranium in the world, particularly in Australia and Kazakhstan, which is the main nuclear energy fuel for most reactors.

According to the "Red Book" produced by the Organisation for Economic Cooperation and Development's Nuclear Energy Agency (NEA) in 2012, the total identified sources of uranium are enough to last for at least 100 years at the current rate of consumption. According to the NEA and industry experts, that estimate could grow exponentially in the future.

Various South-east Asian governments have established nuclear research organisations aimed at

acquiring the necessary expertise to establish nuclear power plants. Indonesia, for example, began civilian nuclear energy research in 1953, while the Philippines started in 1974.

But such plans have often been held up due to strong public opposition.

The Fukushima incident in March 2011 further dented public confidence in nuclear energy safety at a time when it was heralded by many as the foremost sustainable and viable solution to the growing appetite for clean and cheap energy across the region.

Three years later, public interest in nuclear energy continues to remain subdued throughout the region, with the exception of Indonesia.

Public acceptance in Indonesia appears to be steadily increasing despite the Fukushima incident and its troubled aftermath. In 2012, a government-commissioned poll indicated that almost 53 per cent of the nation was in support of nuclear energy, compared to 50 per cent shortly after the Fukushima incident.

There are no official figures for Thailand, the Philippines, and Malaysia, but news sources suggest that the level of public acceptance in these countries has yet to reach what it is in Indonesia.

Last year, Thailand's energy minister warned that the country is overly dependent on natural gas (70 per cent of Thailand's power generation comes from gas) and urged the government agencies to step up their efforts to gain public acceptance of nuclear energy.

As for the Philippines, in 2012, the government faced stiff opposition from civil society and threats from militant groups when a state official announced that it was considering reviving the country's nuclear energy plans.

In Malaysia, strong public protests and demonstrations in 2012 have delayed the launch of an Australian firm's rare-earth processing plant in the state of Pahang. The existing site is believed to be vulnerable to floods during monsoon seasons. Green activists are also concerned about the plant's ability to safely store radioactive waste.

Meanwhile, due to security and safety issues, the Singapore Government has taken a pragmatic stand and decided that the existing nuclear energy technology remains unsuitable, given the country's size and population density.

Overall, the cautious approach of Asean member states towards nuclear energy bodes well for the region. But until the day technological advancements render renewable energy sources such as solar and wind more cost-competitive, growing energy demands in South-east Asia will continue to assert pressure on governments to pursue the nuclear option.

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