

## Transitioning into Indonesia's new energy architecture

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The World Economic Forum's 2011 Annual Meeting of the New Champions or "Summer Davos" in Dalian concluded recently.

The New Energy Architecture — widely considered one of the considered most important initiatives at the forum — reveals that significant change in the energy system structure is under way, with many believing the world might even be at an historic inflection point that will fundamentally alter the global energy architecture.

Earlier, the forum stated that 90 percent of the energy leaders in Davos believe that the energy architecture is changing significantly. Thirty-six percent think it is even at a point of inflection. The urgency of global attention to the energy sector's most strategic issue is unavoidable.

Speaking at Summer Davos as the only representative from Indonesia, I found that Indonesia has been seen as at the forefront of shaping the new energy architecture in emerging markets. But have we really prepared ourselves for the new energy architecture in our own home country? The question remains to be answered.

Indonesia's current power generation is largely driven by coal and a significant addition by diesel fuel. Although gas is ideal for meeting peak demand, it is in short supply especially in the main demand center of Java.

Pricing and infrastructure have been the main bottlenecks. Instead, PLN uses expensive fuel oil and diesel also for swing capacity.

Going forward, PLN plans to significantly increase its power generation capacity in Java by 2020, from 39 GW to potentially over 63 GW. Investment in coal-fired power plants will be the major driver for supply growth, doubling its 17 GW capacity to 34 GW. Hydroelectric power will also be doubled from 3 GW to 6 GW and geothermal energy is expected to increase its existing 1 GW capacity to 4 GW, while gas will only moderately increase from 16 GW to 17 GW.

Still, the transition of the energy mix requires that several issues be overcome. The country needs to build many coal-fired power plants, set the pricing of domestic coal to be equally it is

attractive as internationally, and develop a policy to incentivize entrepreneurs on independent power plants. On gas, the most critical enabler lies in availability of the transmission infrastructure in Java, especially in major cities like Jakarta, Bandung and Surabaya, if gas is to replace oil for transportation. There is a long way to go, yet it is possible.

A quadrupled increase in geothermal production from current levels needs an alternate operating model for upstream, which is currently dominated by Pertamina. Lastly, investment in oil exploration and an upgrade of existing producing assets needs to take place in both upstream and downstream.

But energy is politics. It is just impossible to talk about the new energy architecture without addressing the political will of the government and political parties. The energy mix might not change dramatically from the expected sources of coal-fired plants representing more than half of it, followed by the integrated gasification combined cycle plants (or Pembangkit Listrik Tenaga Gas Uap in Indonesian). However, if we are to increase our national capacity, we will very much need to depend on political compromise and commitment to do so in an efficient way.

A shift in people's mind-set to ensure proper transition toward the new architecture will also be ultimately pivotal in applying the pressure for proper transition to a more appropriate energy mix. Whether or not we can move to a more efficient energy mix will first come from public understanding of what is important for our future.

While facing the economic reality of the implication of shifting the national energy mix, there is much homework for the government to do to educate the people on saving energy resources and using cleaner sources.

Obviously, the three main stakeholders — political entities, people in general and the private sector — should work hand-in-hand if Indonesia is to progress well on addressing energy issues in the next decade.

Of course, like every business, Indonesian energy companies face a lot of challenges in addition to the limitations set by the regulations or other non-controllable aspects. But we have seen that good corporate governance is transforming the business environment. Has it reached 100 percent yet? No, but we are getting there. The critical issues we face are those faced by companies everywhere: globalization, competition and a pressing need for transparency. The most important thing is that we are moving in the right direction.

As a closing note, let me bring up an equally crucial issue that all Indonesians and global citizens are facing. Energy security cannot be seen as a standalone problem. It directly links to the bigger issues of food security and water scarcity. How are we going to address these three

big themes at the same time? I leave it to you to think about it.

*The writer is president director of PT Indika Energy. The article is an excerpt of his presentation at the recent Young Global Leaders of the World Economic Forum in Dalian, China.*

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