# *Clash of Visions – Coal in Southeast Asia*

**BY WEN-YU WENG**

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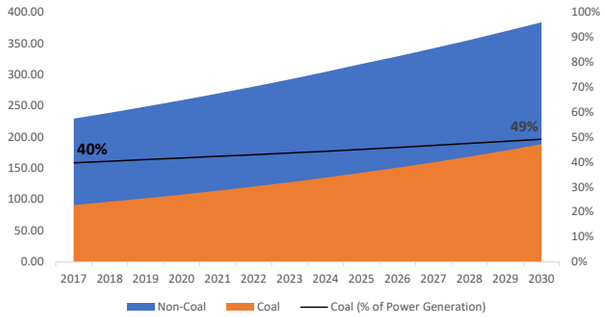
Southeast Asia, a region with immense renewables potential, diverse and rapidly growing economies, and an increasingly educated and technical workforce, has largely presented a mixed picture when it comes to its decarbonization efforts. Despite record-low costs and growing market shares of renewables, coal remain a formidable incumbent in this region. By the IEA's account, power demand in the region is set to soar approximately 70% between 2017 and 2030 under the Current Policies Scenario, with much of the generation expected to be met by coal, which is likely to remain the fastest growing energy source through to 2040.

With rising economic prowess and political significance, Southeast Asia is at a critical junction. Its policy and investment choices will profoundly affect its path of development and the advancement of the global climate agenda. Below, we review some of the main developments and highlight examples that depict the complex narratives around coal within Southeast Asian economies.

## Regulatory conservatism




*Contribution of Coal to Growth of Power Generation in ASEAN*
*Source: WEO 2018*

There have been many laudable signs of changes in the energy sector. Last year, while residents in an upscale Bangkok neighbourhood began experimenting with futuristic peer-to-peer renewable energy trading on a blockchain platform, renewable energy and environmental advocates in Indonesia were celebrating a small win in the form of a Presidential announcement to wean Indonesia slowly off coal. Not long after, emerging from years of revision, the Thai government revealed its latest Power Development Plan in January 2019, which saw the downward revision of coal in its future power mix and the introduction of a new target for floating solar – a nascent but promising technology. The same technology also became eligible to receive a 20-year Feed-in Tariff (FiT) in the same year under a decision issued by the Vietnamese government.

The steady progress in embracing clean energy generation and related enabling technologies, however, have often been derailed by bureaucratic instincts and institutional inertia. To implement any lasting change in Indonesia, for example, President Widodo will face the Sisyphean task of reforming the convoluted state power procurement plan ("RUPTL") as designed and administered by the state utility, PLN. In recent years, Indonesia's tariff schemes for renewables had become even more unpredictable, threatening to shut out renewables from areas with significant renewable resource potential. In Thailand, the government regulator, Energy Regulatory Commission, raced to demand producers using blockchain technology to pay an additional fee for the "destabilizing effects" of the technology, thwarting public and economic interest in the promising, decentralized approach.

Regulatory changes often protect existing stakeholders and their interests. This is further compounded by the strong ties that often exist between fossil fuel industries, state distribution utilities, and ministries and regulatory bodies in Southeast Asian nations.

## Economic forces at play

According to Argus Media, as cited in the *Financial Times*, the price of thermal coal has generally declined since the third quarter of 2018. Prices around the world have fallen to record multi-year lows in the second quarter of 2019, before the markets saw a slight reprieve. The price drops may only reinforce coal's attractiveness to emerging economies.

| | 2018 | 2019 |
|---|---|---|
| **Supply** | | |
| Indonesia | 428.8 | 389.5 |
| Australia | 208.1 | 200.4 |
| Russia | 147.5 | 139.6 |
| Colombia | 77.9 | 83.9 |
| South Africa | 73.5 | 76.6 |
| US | 49.6 | 38.6 |
| **Demand** | | |
| Northeast Asia | 298.4 | 300.2 |
| China | 207.8 | 191.4 |
| India | 175.9 | 153.3 |
| EU/Turkey | 147.9 | 151.0 |
| Southeast Asia | 104.0 | 92.7 |

*Global seaborne thermal coal trade for select regions and countries 2017-2018 (mn t)*
Source: Argus Media

In 2018, Southeast Asia imported 11.3 million tons more thermal coal than in 2018, offsetting any import declines seen in Northeast Asia, the EU, and Turkey. It is no wonder that the region has been perceived as the frontier for coal power, and a battlefront of an emerging "geopolitical rivalry" between China and Japan as they race to offer willing countries coal power financing and cleaner, more efficient coal technology. This booming market is furthered supported by Indonesia's vast reserves and high production. Today, Indonesia is one of the top coal exporters in the world, and its cheap coal dominates the supply mix in Southeast Asia.

In the meantime, historically low costs of solar and wind projects are driving multi-gigawatt pipelines even in less mature renewables markets. Mapping tools and analysis developed by researchers at the U.S. Agency for International Development and the U.S. National Renewable Energy Laboratory have also found significant potential for utility-scale renewable generation across the region.

Nonetheless, technological and cost factors alone will not be sufficient to drive a renewables build out if investors remain averse to the regulatory risks and market inefficiencies in the economies. When coupled with strong incentives, the private sector has proven keen to play – the solar sector in Vietnam being a particularly noteworthy case study.

## Investment pressures

The nudge to renewables relies on push-pull factors working in consortium. While renewable technology LCOEs have dropped, international investors have also begun to embrace the ESG agenda, making coal financing increasingly difficult. Research by the Institute for Energy Economics and Financial Analysis (IEEFA) shows that over 100 globally significant financial institutions have imposed restrictions on lending to, or investment in, coal projects.

This is not an exclusively European nor North American phenomenon. In March, the State Development & Investment Corporation (SDIC) became the first Chinese financial institution to declare its plan of withdrawing from the coal Industry. In May, the United Overseas Bank – the third-largest finance group in Southeast Asia – moved to join its fellow Singaporean Banks, OCBC and DBS, in announcing its intention to stop financing coal. Shortly after, Japan's Mitsubishi UFJ Financial Group revised its environmental and social policy framework to write out future coal financing, albeit with some exceptions begrudgingly factored in.

As private equity and development financing from multilateral institutions exit the doors, coal projects face strong headwinds and a race against time. In addition, mounting regulatory pressures and price competition from renewables threatens to render permitting and attractive financing impossible. Analysis by the Carbon Tracker posited that as much as $60 billion of coal power assets may become stranded over the next decade in key growth economies in Southeast Asia, such as Vietnam, Indonesia and the Philippines.

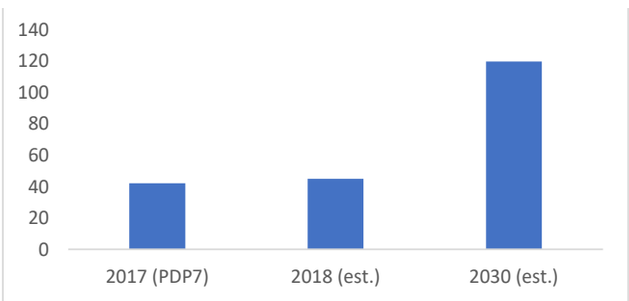
## A battle over policy priorities

The concept of stranded assets is no longer as unfamiliar to policymakers as it once was. Policymakers often understand that delaying action could exacerbate the difficulty in course-correction in the future and potentially affect the creditworthiness of governments as well. But course-correction is easier said than done, particularly when institutional priorities and policy motivations are at odds with divesting from coal.

It is unlikely that the momentum of coal power will be halted in the region, as many nations are eager to extend energy access, support economic and population growth, sustain rapid urbanization, and ensure cheap baseload power for its industrial manufacturing base. Members of ASEAN are delivering some of the highest economic growth rates in the world and their governments will seek every means to – literally – power this growth. Future stranding, inefficient or underperforming technologies, and early retirement of coal plants may be economically wasteful, but nations will seek every opportunity to keep the lights on at homes and the machinery churning in productive factories.

Constraints on renewables are multiplied by binding socio-economic mandates. For example, according to the World Bank, as much as 30% of Myanmar are currently under-electrified or lack access to electricity entirely. While micro-grids and mini-grids powered by renewables remain a possibility, the government is keen to extend the fossil- and hydro-fuelled main grid wherever possible. And although renewables off-grid solutions hold great promise, private sector involvement in many countries have faced scaling problems, and legal and economic barriers. Improving access to modern energy services (particularly to "last mile" communities) is also a key policy objective in Indonesia, the Philippines, Cambodia and Laos, and all governments still present fossil fuels as playing an inevitable role in a larger grid.

Sustaining remarkable economic growth also underpins the policy priority of governments in the region. Although Vietnam has been a glowing growth story for renewables in the last few years, in order to support the projected economic and population




*Power Generation Capacity Growth*
Source: Power Development Plan VII, FTI analysis

growth, we conclude that Vietnam's required power generation capacity will have to at least double by 2030 compared to 2018. The government would not be keen to write off coal projects any time soon.

While every member nation of ASEAN has adopted individual national renewable energy targets, the most significant regulatory contribution requires a co-ordinated approach. The clean energy transition requires a consistent and comprehensive framework that supports the end-to-end needs of a clean energy industry – from early research, to conducive industrial policies, to permitting and licensing, to project finance and creating bankable conditions, to supporting renewable developers find lasting and predictable routes to markets. As a whole, ASEAN has also set itself a goal of generating 23% of energy from renewables by 2025. While the goal is theoretically achievable, our analysis depicts that drastic policy measures must be instituted early and swiftly, and sustainable and steady investment incentives introduced, to cultivate the pipeline necessary to meet the capacity built-out required to meet the regional target.

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