

ESG Viewpoint


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Key risks

The value of investments and any income derived from them can go down as well as up as a result of market or currency movements and investors may not get back the original amount invested.

Investing in emerging markets is generally considered to involve more risk than developed markets.

Energy Transition in Developing Asia – Critical to the success of addressing climate change

Asia is absolutely critical to meeting the goals of the Paris climate agreement. The region's greenhouse gas emissions are already higher than any other region of the world and continue to grow as the need for energy expands, both to provide access to energy to a growing population and reflecting the region's role as the world's manufacturing powerhouse. Meeting these growing energy needs whilst also turning the trajectory of greenhouse gas emission downwards requires a radical shift to a lower-carbon pathway.

We travelled to Thailand, China and Hong Kong to engage with 10 strategically important energy companies to encourage actions aligning their emissions to the Paris Agreement goals. In our meetings with these companies, we set out our belief that although national policies in the region are misaligned with the Paris Agreement goals, they should think longer-term and recognise the advantages of being proactive by going above and beyond where their governments are currently positioned on the low-carbon transition.

An important energy system continues to grow

Contributing more than 60% of world's GDP growth in 2017¹ and with now more than 60% of world's population living in the region², Asian countries have been catching up to provide reliable and affordable energy to the growing population alongside the middle-class expansion. This is a challenging task for some developing countries in the region, as over 400 million people in developing Asia still lack access to electricity.



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¹ https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?end=2018&name_desc=false&start=2018&view=bar

² <https://www.un.org/en/sections/issues-depth/population/>

This has created a significant need for the energy system to expand. In the Association of Southeast Asian Nations (ASEAN), economic growth in the past 15 years drove 60% growth in energy demand –an upward trend that is likely to continue until at least 2040, when the electricity access rate reaches 100% as estimated by the International Energy Agency (IEA)³. India, with its electricity access rate sitting at 82% in 2016, is expected to see more than 4% growth annually in energy demand through to 2035⁴. China, although having achieved 100% electricity access back in 2010, is still set to experience a 21% rise energy demand growth by 2040 according to the IEA.

Key Developing Asia Countries & Electricity Access Rates in 2016:

- **100%:**
China, Singapore, Thailand, Brunei, Sri Lanka

- **90% – 100%:**
Malaysia, Vietnam

- **<90%:**
India, Indonesia, Philippines and others

Source: IEA, Energy Access Outlook 2017

Positive signs of deep energy transformation, but it needs to be quicker

Balancing the energy demand growth and the need for decarbonisation is challenging. The IEA currently estimates that to limit global warming to well below 2 degrees Celsius as set out in the Paris Agreement, 90% of the energy demand growth across developing Asia would need to be fulfilled by low-carbon energy sources, while displacing existing high-emitting fossil fuel demands through electrification of the region's energy and transportation systems by 2040. Deep energy transformation would need to be completed by 2050, meaning that energy-related emissions would need to drop by 75%⁵.

While there are certainly positive signs across Asia, including the doubled renewable energy capacity between 2013-2018⁶, oil and

coal use also continued to rise and met most of the additional demand in the past two years⁷. If this trend continues, the IEA expects that almost 50% of the region's primary energy consumption in 2040 would still be met by coal and oil⁸. This would very likely exhaust the Asian "carbon budget" (the total amount of greenhouse gas permissible to stay under 2 degrees of global warming) much sooner than expected. Looking at the a more ambitious 1.5 degrees scenario, the University of Oxford has estimated that almost 84% of the current and planned thermal plants across Southeast Asia are incompatible with this goal⁹.

National policy trajectories are currently inconsistent with the Paris goals

National energy and climate change policies have a significant role in altering this trend, as most parts of the developing Asian energy market are still regulated by, or experience a strong presence of, state-owned enterprises. However, most of the climate change commitments declared by key developing Asian countries are expected to be incompatible to the 2 degrees warming limit, let alone the more ambitious 1.5 degrees aim, according to the Climate Action Tracker¹⁰.

The Intergovernmental Panel of Climate Change (IPCC) estimates that there needs to be an additional 54% reduction, or 29 gigatonnes of CO2 equivalent, from the projected emissions level in 2030 based on all the existing national commitments¹¹. If these national commitments remain unchanged, the implication is that the post-2030 adjustment would need to be much more ambitious. Such a "back-loaded" approach in national decarbonisation strategies could be risky if corporates were to merely follow the existing national ambitions when setting reduction targets, leaving a short timeframe between 2030-2050 for deep energy transformation, and the potential for "stranded assets" if investments in the coming decade turn out to be incompatible with a more severe cut in future emissions.

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³ <https://www.iea.org/southeastasia/>

⁴ <https://economictimes.indiatimes.com/industry/energy/indias-energy-demand-to-grow-by-4-2-dharmendra-pradhan/articleshow/71067521.cms?from=mdr>

⁵ <https://www.iea.org/publications/reports/PerspectivesfortheCleanEnergyTransition/>

⁶ <https://www.irena.org/publications/2019/Jul/Renewable-energy-statistics-2019>

⁷ <https://www.iea.org/geco/coal/>

⁸ <https://www.iea.org/southeastasia/>

⁹ <https://www.smithschool.ox.ac.uk/research/sustainable-finance/publications/Carbon-Lock-in-Curves-and-Southeast-Asia.pdf>

¹⁰ <https://climateactiontracker.org/>

¹¹ http://wedocs.unep.org/bitstream/handle/20.500.11822/26895/EGR2018_FullReport_EN.pdf?sequence=1&isAllowed=y



Our engagement with the Asian energy sector

Given the challenges the energy sector will likely face, we travelled to China and Thailand and met with ten mining, oil & gas and utility companies to encourage early action on climate change.

Some already see energy transition as an opportunity

Several companies in the energy and utilities sectors that we met showed good awareness of energy transition issues. Many of them acknowledged that this is now an essential part of investor interests, with a focus on the arising opportunities in the low carbon future. We feel particularly positive that **CLP** and **PTT** have both set out clear business plans to harness the opportunities.

CLP, a utility company based in Hong Kong with operations in India and China, launched its Climate Vision 2050 back in 2007, which set out its mid-term renewable energy capacity targets and helped CLP become one of the first Asian companies establishing a 2050 reduction target. In recent years, the company has been targeting key markets, such as India, for renewable energy growth, and has worked with strategic investors to strengthen its competitive position. Although India's national energy policy played a significant role in enabling such opportunities, we commend CLP's early vision back in 2007.

CLP is also actively engaging in policy dialogues with regulators to confirm the timeline of switching its coal-fired units to lower-carbon technologies. In September 2019, the company published their position on Hong Kong's "Long-term Decarbonisation Strategy", encouraging the government to take a balanced view considering environmental sustainability in its future energy policy and to be clear on the timeline starting the transition away from coal to natural gas.

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Climate Commitments by Key Developing Asian countries:

2030 greenhouse gas reduction targets (unconditional):

- Indonesia (29% reduction across selected sectors against the business as usual scenario)
- China (peak CO₂ emissions in absolute terms; 60-65% economic wide reduction of carbon emissions per GDP below 2005 level)
- India (33%-35% below 2005 emission intensity)

Non-fossil energy consumption targets:

- Indonesia (23% by 2025, 31% by 2050)
- China (20% by 2030, 50% by 2050)
- India (40% by 2030)

Coal supply targets:

- Indonesia (min. 30% by 2025, min. 25% by 2050)
- China (implied in the 2030 emission peak pledge and the non-fossil energy target)
- India (implied in the 2030 carbon intensity target and the non-fossil energy target)

Source: UNFCCC NDC Interim Registry

CLP's Climate Pledge 2050

- **80%** reduction by 2050 in carbon intensity compared to the 2007 baseline
- **30%** of its generation portfolio to be renewable energies and 40% to be non-carbon by 2030
- Interim targets (2020, 2030 & 2040) on the above to track progress

Source: CLP Climate Vision 2050

PTT, the largest integrated oil & gas company in Thailand, is another company we see viewing the energy transition as an opportunity. We met PTT as it was working on an update of its green revenue target, and the company shared with us its positive outlook on the green product markets, where it is currently scaling up. The revenue target is coordinated between its large number of subsidiaries and informs their research and development targets and budgetary decisions. In our opinion, this is an example of best practice rarely seen in Asia. While we will continue to encourage stretching mid and long-term reduction targets by the group, we feel that management has adequate knowledge on energy transition, with a good climate change governance framework.

PTT Climate Change Management

- **Opportunities:** Establishing an investment strategy and setting a target to increase the PTT Group's revenue from low carbon products by 2023. This includes renewable energy, biofuels and natural gas
- **Risks:** Evaluate and implement carbon pricing when considering to invest in 2020
- **Impact Reduction:** 20% reduction by 2030 compared to business as usual scenario

Source: PTT 2018 Report

Chinese natural gas suppliers are another group of businesses enjoying energy transition as a driver for new business growth. **Kunlun Energy** and **Hong Kong and China Gas** are both focusing on downstream distribution and are clearly benefiting from the incentives created by China's energy policy, which drives gasification for heat supply at major cities.

But most struggle with actions to manage transition risks

In parallel to the energy transition opportunities, it is equally important to understand how companies are reducing their climate change impacts and their reliance on fossil fuels. We remain disappointed that a comprehensive management approach here is rare. Except for **CLP**, **Sinopec** and **PTT**, key energy companies, including **Shenhua**, **Power Assets** (apart from one of their assets), **Kunlun Energy**, **Hong Kong and China Gas** (on their large China asset portfolio) and **Beijing Enterprise** have all failed to disclose a company-wide emission reduction target further ahead than a one-year time horizon. Although we anticipate that upcoming disclosure requirements at the Hong Kong Stock Exchange and in China will help address the lack of clarity, we feel that there is a long way for companies to fully consider the implications of the Paris Agreement goal of limiting global warming to "well below 2 degrees" in their greenhouse gas emission management approach.

There also seems to be limited room for some to diversify into the low carbon segments. **Shenhua**, for example, has recently been repositioned to focus on upstream coal mining, and demerged around half of its utility assets under the new parent – the state-owned CHN ENERGY Investment Group. This is likely to limit its access to low-carbon growth opportunities and the options to decarbonise available in its downstream. The company also mentioned that they expect to rely on newly emerging abatement technologies to significantly lower their company-wide carbon intensity. As some of these technologies – such as Carbon Capture and Storage – are still in early pilot, it could also mean that it is highly uncertain whether companies of such kind could be anywhere near to alignment to the Paris Agreement goals by mid-century.

Our future engagement with the Asian energy sector

We recently set out our expectation that companies should align their emissions to the "well below 2-degree" scenarios in our [climate change engagement framework](#). We believe that it is the responsibility of boards and executive management teams to provide clarity on their transition approach to the low carbon economy.

We recognise development and access to energy needs, and the economics of different technologies in the region. However, we feel that these are too often used as a reason for inaction. Balancing these, our minimum expectations for high-emissions companies in this sector are:

- Set a medium-term reduction target (by 2030) that is at least in line with the country's existing commitment in the Paris Agreement;
- Conduct a scenario analysis with a timeframe until 2050 to understand policy trajectories and their possible impacts on the business;
- Publish a technology roadmap suitable for the company to achieve the reduction target. This could be based on key abatement technologies with the backing of a clear research & development or investment plan;
- Focus on low-carbon opportunities (technologies and/or products and services) that are already economical (or will be in the near term) in their business growth strategies. We will encourage companies to go above and beyond current policy trajectories to scale these low-carbon solutions;
- We expect companies to lobby positively on these low carbon opportunities and
- We will continue to educate on the concept of 2-degrees alignment, and the inherent risks of business strategies that are not consistent with a future zero-carbon world.

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