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Investments

Mackenzie Asia Team

Opportunity: Clean Energy

Opportunities in Asia Pacific, Part 3

Summary

China has announced an ambitious energy policy to transform the country to net zero carbon emissions by 2060, a huge step forward in meeting global climate change goals.

China's initiative is critical for the world to achieve carbon emission reduction targets and to mitigate climate change. It also creates a number of unique investment opportunities in the Asia Pacific region.

Investment opportunities may include clean energy, electric vehicles (EVs), and certain key material sectors. Apart from solely investing in China, exciting prospects appear to exist across the Asia Pacific region and may provide better risk-adjusted investment returns.

Across Asia Pacific, there are many sectors and companies which will benefit from this policy change. In some cases, companies outside of China have more competitive advantages than those within China and may act with greater financial discipline. There are leading Asian semiconductor, chemical and automotive companies which may operate with greater focus on financial returns, higher levels of corporate governance and with more shareholder-friendly management teams. In other cases, the winners may be Chinese companies which enjoy home advantage and an ability to achieve greater scale. Overall, we believe a pan-Asian investment approach should allow investors to enjoy higher risk-adjusted returns.

Among a wide range of investment opportunities, this part highlights the following key sector.

Opportunities: Clean energy

China's energy mix must undergo a drastic shift away from coal-fired power generation towards renewables and nuclear in order to achieve carbon neutrality by 2060. Energy consumption sourced by coal and oil will drop by over 95% between 2020 to 2060. Clean energy will contribute over 70% of China's energy consumption by 2060 (from 2020's 16%). This translates to solar/wind capacity rising by ~14x/7x from 2020's level by 2060. China has enough natural resources to support such a program, but it must re-invent the power system in the long term. With solar and wind making up almost 60% of the power market by 2060, policy makers will need to make aggressive investments in these areas. While it takes time to build out renewables across China, natural gas (50%+ cleaner than burning coal) remains an important transition energy solution for



Nick Scott,
Senior Vice President, Portfolio Manager
Mackenzie Asia Team



Bryan Mattei, CFA
Vice President, Portfolio Manager



Ryoichi Hayashi, CFA
Director, Investment Research



Michael Chan, CFA
Senior Equity Analyst

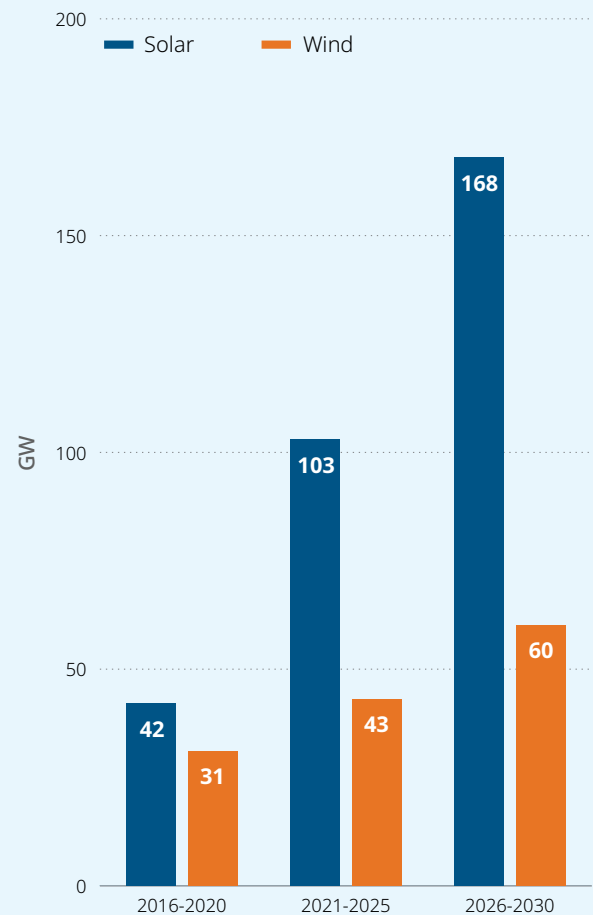
China, as it will be challenging to decommission coal-fired power plants in the short-term while achieving necessary economic growth.

Solar and wind farm operators look to be obvious investment targets. However, potential subsidy cuts for existing solar and wind farms need to be closely monitored as project returns can be adversely impacted. That's why we need to be selective about investing in upstream component suppliers or downstream farm operators.

Solar is the most cost-effective renewable energy solution in China by far. China itself accounts for approximately 40% of the world's new solar installations. The global solar installation boom (most developed countries also declared carbon neutrality target) provides high order visibility for Chinese solar supply chain companies as they control more than 80% of global effective solar capacity. For example, Chinese companies control 97% of global solar glass capacity. It is impossible to complete a solar module without solar glass. Newcomers would find it hard to compete with Chinese peers as Chinese companies developed a comprehensive solar supply chain locally in the past 20 years with superior cost advantages and efficiency (Figure 2).

Apart from solar, China also has rich wind power resources to support its drastic shift to renewables (Figure 1). Dispatch of electricity generated by wind is always a challenge for the power grid given wind's lower reliability, meaning the amount of renewable power generated at any given time is somewhat unpredictable. Wind power density is higher in the west and north parts of China, far from most of the large urban centers with higher power needs. It highlights the hurdle of building ultra-high voltage (UHV) lines and energy storage systems, which requires large amounts of copper, which we will elaborate upon in the next section.

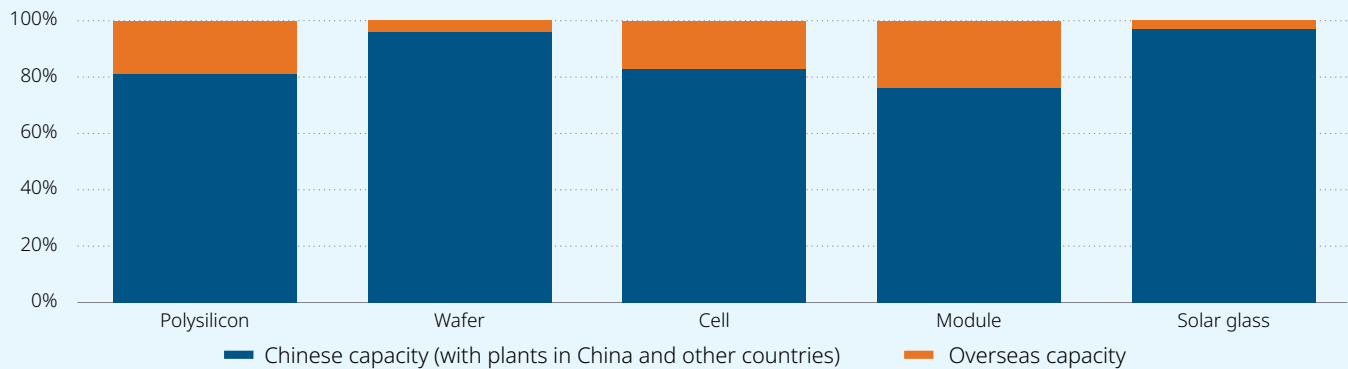
Figure 1 | Average annual new solar and wind installations in China



Source: Wind, Census and Economic Information Center, Credit Suisse Estimates



Figure 2 | Solar supply chain's capacity market share



Source: Company data, BJX News

Conclusion

China's highly ambitious environmental policies will transform the world's second largest economy from the largest detractor in reaching global emission targets to one of the leading contributors.

This transformation will disrupt many industries within China but create some large-scale, globally dominant

companies. However, some of the best investment opportunities may well lie outside the country itself. Investing in some of the leading Korean, Japanese, Australian or Taiwanese companies, closely aligned to China's needs to complete this profound transformation, may reduce China's country risk and improve risk-adjusted investment returns.

To learn more about our Mackenzie Asia Team, please contact your financial advisor.

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