



In the 2022 Issues Survey, China's Map indicates Critical Uncertainties with high impact around Geopolitics, Commodity Prices and Renewable energies. The Action Priorities section focuses on Climate Change Management, Market design and regulations, and Digitalisation.

CRITICAL UNCERTAINTIES

Geopolitics is perceived as a Critical Uncertainty for China as the world's largest importer of crude oil and natural gas. Although China's energy transition is already in full swing, fossil fuels are expected to remain the main source of Chinese energy consumption in the near future. Uncertainties emerging from the Geopolitics may not only bring serious influence upon China's oil and gas imports, but also affect their energy security. Therefore, China is seeking diversification of oil and gas imports to mitigate geopolitical shocks.

Commodity Prices have been soaring for the past two years, especially Lithium, Copper, Aluminium, Nickel, Cobalt and Iron ore prices, which affect China's economic growth and energy transition as some of them are Critical Raw Materials (CRM) for renewables. The rapid rise in the price of upstream raw materials will affect the development of renewables and new energy storage, which are important ways to help China achieve carbon neutrality. If commodity prices keep rising, power security and supply chain security problems will not be ignored.

Renewable energies are perceived as having low uncertainty and high impact. China has the world's largest cumulative installed capacity of hydropower, solar PV and wind turbines, and is in the lead of renewable energies investment. In 2021, China's new renewable energy installed capacity was 134GW, accounting for 76.1% of China's new power generation installed capacity. Among them, 23.49 GW of hydropower, 47.57 GW of wind power, 54.88 GW of solar photovoltaic power generation were increased.

In the future, with the increase of renewable energies installed capacity, it should solve the problems of how to integrate renewable electricity into the grid whilst deploying distributed renewable energies onto a larger scale, and reduce the curtailment of electricity generated by hydro, wind and solar PV by increasing support for the development of flexible power sources.

ACTION PRIORITIES

Climate Change Management: Is a top Action Priority. China has announced its carbon peaking and carbon neutrality goals, but China's green pursuit is no easy job, both goals in the long run and short-term targets should be taken into account. China will further improve the "dual control" system on both total energy consumption and energy intensity, as well as standards for carbon peaking and neutrality, and build a unified and standardized calculating system for carbon emissions.

Market design and regulations are very important to stimulate the energy transition. China urges the alignment of a capable government

and an effective market, and stresses profoundly analysing the country's situation and tasks on advancing the carbon peaking and carbon neutrality work. The relations between development and emission reduction must be properly handled. Cutting emissions is not aimed at curbing productivity or no emissions at all, instead, the economic development and green transition should be mutually reinforcing, and a "one-size-fits-all" approach should not be adopted.

Digitalisation remains an Action Priority. The digital transformation of energy, by adopting the smart grid, blockchain and "Internet of Things" technologies, will inject new impetus into the industrial upgrading, business model innovation, service expansion and ecological construction of the traditional energy industry. This will continue to make efforts to promote quality, efficiency and power reform, in order to improve the level of high-quality energy development and promote the construction of a modern energy system. The COVID-19 pandemic accelerates the digital transformation of the energy industries, but it is important to pay close attention to the problems caused by digital transformation such as data leakage.

WORLD ENERGY COUNCIL

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