WHAT OFFSHORE INVESTORS NEED TO KNOW ABOUT THE RELAUNCH OF CHINA'S VOLUNTARY CARBON MARKET

APRIL 2024



INTRODUCTION TO VOLUNTARY CARBON MARKETS A TOOL TO SUPPORT GLOBAL LOW-CARBON TRANSITION

Voluntary carbon markets (VCMs) have an important role to play in supporting the transition to a low-carbon economy by facilitating the trading of carbon credits which are capable of being surrendered to offset a corresponding volume of greenhouse gas (GHG) emissions.

Carbon credits (each representing one metric ton of carbon dioxide equivalent gas, or **CO2e**) are issued in respect of climate change mitigation projects that prevent, mitigate, remove, sequester, or reduce the volume of CO2e released into the Earth's atmosphere. Examples of climate change mitigation projects include renewable energy projects, regenerative agriculture projects, biogas projects and water filtration projects.

Unlike compliance carbon markets (**CCMs**), VCMs are largely unregulated and participation in VCMs is voluntary. Whilst it may not be possible to eliminate GHG emissions from the Earth's atmosphere entirely, VCMs make it possible to offset the adverse environmental impact of the GHG emissions that cannot be avoided or permanently removed.

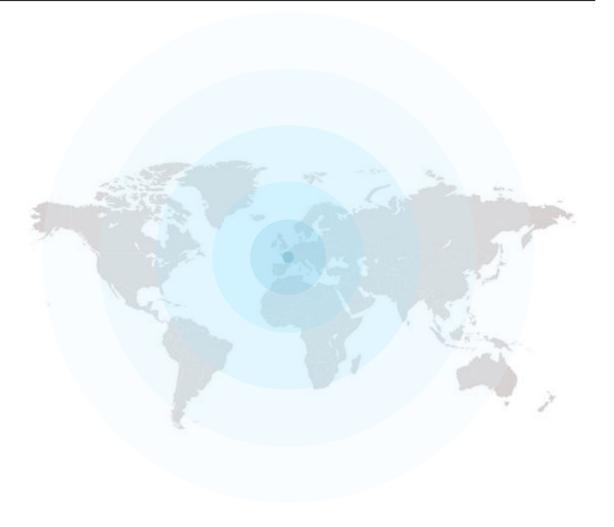
VCMs around the world are developing at different speeds according to different standards, as countries strive to reduce their GHG emissions in line with their Paris Agreement commitments and their legal and regulatory regimes tighten accordingly.

The adverse (environmental and financial) impact of climate change is well documented. As countries start to implement sustainability disclosure rules, sustainability due diligence obligations, and carbon taxes, the adverse (monetary and reputational) consequences for businesses of failing to comply with sustainability-led initiatives is also becoming clearer - not least, the ability to maintain supply chains and access capital.

ESG laws are becoming increasingly extraterritorial in their reach, with schemes such as the European Union's carbon border adjustment mechanism (CBAM) applying to emissions embedded in goods that are produced outside (and imported into) Europe.

But for VCMs to have a legitimate, long-term role in mitigating the adverse effects of climate change and generating the capital required to fund low-carbon transition, they must address two key issues: integrity and fragmentation.

In this document, references to 'China', the 'Mainland', the 'PRC', and 'onshore' are references to the People's Republic of China excluding the Hong Kong Special Administrative Region and the Macau Special Administrative Region unless a contrary indication appears.



BRIEF OVERVIEW OF CHINA'S PILOT CARBON MARKET SCHEMES CHINA'S PILOT SCHEMES

Each of China's pilot carbon market schemes operates independently according to their respective rules and requirements. In time, it is expected that each of these pilot schemes will be integrated into (and expand the scope of) China's national emissions trading scheme (ETS) which was subsequently established in 2021. Given the range of products, industry sectors and types of entities that are covered by the various pilot schemes, we expect that their integration into the national ETS will occur on a phased basis. There is currently no formal timetable for such integration to take place.

Chongqing (Chongqing Asset and Equity Exchange)

Sectors include cement, steel, aluminium electrolysis, glass and glass products, paper, chemical, municipal waste incineration, manufacture of machinery and equipment, manufacture of electronics, specified food and drink, tobacco, non-ferrous metals, petrochemical, natural gas, and ceramics (>13,000 CO2e).

Sichuan (Sichuan United Environment Exchange)

Platform for creating CCER generating projects from various industries covering wind power, hydropower and photovoltaic power generation.

Hubei (China Hubei Emission Exchange)

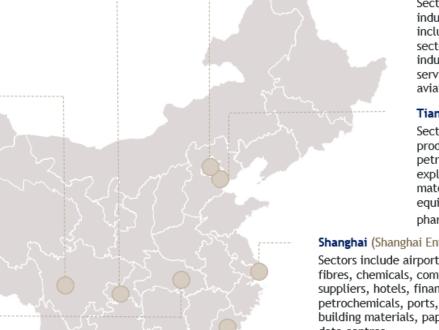
Sectors include power, cement, chemicals, and steel (>13,000 CO2e).

Guangdong (China Emissions Exchange)

Sectors include cement, steel, petrochemical, paper, civil aviation, ceramics, ports, and data centres.

Shenzhen (China Emissions Exchange)

Sectors include power, water, gas, manufacturing, buildings, ports and subways, public buses, waste management, waste treatment, and chemicals.



Fujian (Fujian Haixia Equity Exchange)

Sectors: electricity, petrochemical, chemical, building materials, iron and steel, nonferrous metals, paper, aviation, and ceramics.

Beijing (China Beijing Green Exchange)

Sectors include industrial and nonindustrial companies and entities, including electricity providers, heating sector, cement, petrochemicals, other industrial enterprises, manufacturers, service sector, public transport, domestic aviation, and data centres.

Tianjin (Tianjin Climate Exchange)

Sectors include heat and electricity production, iron and steel, petrochemical, chemicals, oil and gas exploration, paper, aviation, building materials, manufacture of machinery and equipment, specified food and drink, and pharmaceuticals.

Shanghai (Shanghai Environment and Energy Exchange)

Sectors include airports, domestic aviation, chemical fibres, chemicals, commercial, power and heat, water suppliers, hotels, financial, iron and steel, petrochemicals, ports, shipping, nonferrous metals, building materials, paper, railways, rubber, textiles and data centres.

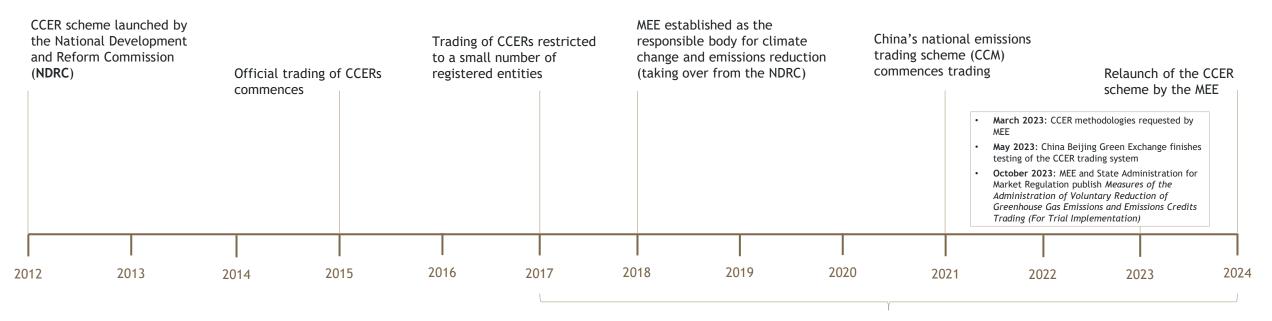
BRIEF OVERVIEW OF CHINA'S PILOT CARBON MARKET SCHEMES CARBON OFFSETS AND CHINA'S PILOT SCHEMES

The China Certified Emissions Reduction (CCER) is an offset mechanism.

Originally launched in 2012, the CCER scheme began trading in 2015 and was subsequently halted in 2017. In 2021, the Ministry of Ecology and Environment (MEE) issued a notice allowing entities subject to China's CCM (**Covered Entities**) to use pre-existing CCERs to offset up to 5% of their annual verified emissions for compliance purposes, with no restrictions on project type or vintage. The national trading platform for CCERs is hosted by the Beijing Green Exchange (a subsidiary of the Beijing Equity Exchange).

The long-awaited relaunch of the CCER scheme occurred in January 2024. Following the relaunch, it is now possible for new CCERs to be traded. The new CCER scheme is seen as a critical step towards China meeting its 30:60 decarbonisation target i.e., to peak emissions by 2030 and be carbon neutral by 2060.

Unlike China's national compliance carbon market (participation in which is limited to approximately 2,200 thermal power plants) participation in the new CCER scheme is open to any PRC business or individual that wishes to voluntarily offset their own emissions or make a positive contribution to climate change mitigation efforts without the need to offset their own emissions.



CHINA'S PILOT SCHEMES AND CARBON OFFSETS CCER TRADING <u>PRE</u>-2024 RELAUNCH

Under the original CCER scheme:

- CCERs could be traded within a pilot scheme subject to compliance with the rules applicable to the applicable pilot scheme;
- participants were permitted to trade CCERs within a pilot scheme even if the project generating the CCERs is located in a different region;
- Covered Entities were permitted to offset up to 5% of their annual verified emissions for compliance purposes under China's national ETS through the purchase of CCERs generated through a pilot scheme; and
- from an accounting perspective,^[1] CCERs are classified as "carbon emission assets" under the "other current assets" section of the balance sheet and are accordingly distinguished from "financial assets" and "intangible assets".

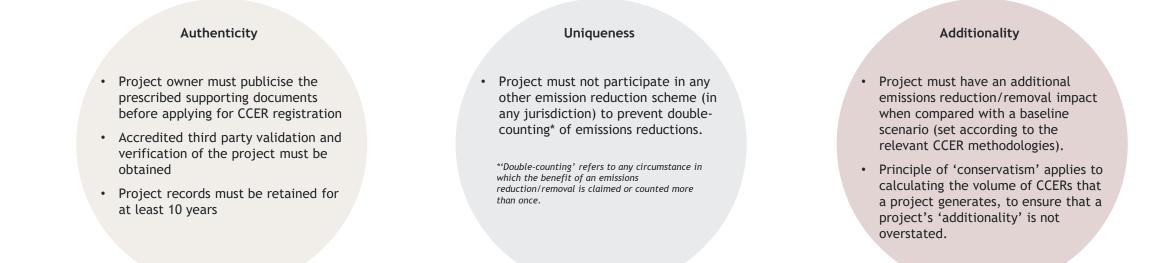
[1] Classification of CCERs as "carbon emission assets" under the "other current assets" section of the balance sheet is pursuant to the Notice of the Ministry of Finance on Printing and Distributing the Interim Provisions on Accounting Treatment of Carbon Emissions Trading.

| Pilot carbon market scheme | Allocation and offset under the original CCER scheme |
|----------------------------|----------------------------------------------------------------------------------------|
| Beijing | Largely free allocation. Up to 5% CCERs may be used for offset. |
| Chongqing | Largely free allocation. Up to 8% CCERs may be used to offset. |
| Fujian | Largely free allocation. Up to 10% CCERs may be used for offset. |
| Guangdong | Largely free allocation. Up to 10% CCERs may be used to offset. |
| Hubei | Largely free allocation. Up to 10% CCERs may be used to offset. |
| Shanghai | Largely free allocation. Up to 3% CCERs may be used to offset. |
| Shenzhen | Largely free allocation. Up to 10% CCERs may be used to offset. |
| Sichuan | Carbon neutrality program launched in 2019 for CCER projects in 20 provincial regions. |
| Tianjin | Largely free allocation. Up to 10% CCERs may be used to offset. |

CHINA'S RELAUNCHED CCER SCHEME NEW CCER METHODOLOGIES AND PROJECT CRITERIA

For a project to qualify as an "emissions reduction" project under the relaunched CCER scheme, that project must either (i) reduce the volume of emissions released or (ii) remove emissions from the atmosphere according to the methodologies prescribed by the MEE.

An emissions reduction project must also meet three core criteria: authenticity, uniqueness, and additionality. The MEE will arrange project inspections to ensure that these criteria are satisfied in accordance with the prescribed methodologies. Failure to comply may lead to revocation of CCER project status as well as potential civil and criminal liability.



Under the relaunched scheme, CCERs are traded, registered and regulated on a centralised basis. Trading of CCERs is managed by the China Beijing Green Exchange. There is also a single (countrywide) registration authority and registration system, which is the definitive record for all CCER transactions. Consequently, there is no longer any OTC market for trading CCERs.

The methodologies for designating a project as a CCER project are set by the MEE following public consultation. Accordingly, there is a single set of standards that is used to determine CCER project status. Third party validation and verification of CCER projects is carried out by bodies approved and accredited by the State Administration for Market Regulation (SAMR) and the MEE. Any issues relating to validation and verification are coordinated and resolved by a centralised Validation and Verification Technical Committee.^[2]

[2] The Notice regarding the Solicitation of Experts for the Validation and Verification Technical Committee of Voluntary Greenhouse Gas Emission Reduction Projects specifies that solicited experts shall include experts from, without limitation, relevant industry management departments, standardization technical organizations, research institutes, industry organisations, technical institutions related to verification and validation, and project owners.

CHINA'S RELAUNCHED CCER SCHEME NEW CCER SYSTEM FEATURES AT A GLANCE

This table highlights some of the key differences between China's original CCER scheme and the relaunched CCER scheme.

Perhaps the most significant change (in contrast with how VCMs are developing in other jurisdictions) is that all trading of CCERs in China is now centralised.

The potential benefits of a centralised system include avoiding market fragmentation and reducing the risk of double-counting. Care is however required in a centralised model to ensure that market growth and ambition are not adversely impacted by the streamlining of market infrastructure, or the methodologies that determine project eligibility.

China's ability to attract foreign participation in its national VCM (as the market opens-up) will, in part, rely on alignment of CCER project methodologies with the standards set by international, private-led initiatives such as the Integrity Council for Voluntary Carbon Markets (ICVCM).

| | Original CCER Scheme | Relaunched CCER Scheme |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Market structure | Decentralised. CCERs traded within various pilot schemes according to the rules of the individual schemes. | Centralised. All trading is undertaken via the Beijing Green Exchange. |
| Trading method | OTC or exchange based. | Exchange based only. Participants must register with the National GHG Voluntary Emission Reduction Trading Institution. |
| Units traded | CCERs issued pre-2017. | CCERs issued pre-2017 may only be traded and used for offset until 31 December 2024. From 1 January 2025, only new CCERs (issued under the relaunched CCER scheme) may be traded and used for offset. |
| Registration | Registration with the exchange responsible for the applicable pilot scheme. | Registration on the National GHG Voluntary Emission Reduction Registration System (operated by the National GHG Voluntary Emission Reduction Registration Authority). |
| Methodology | Clean Development Mechanism project methodologies. | MEE developed project methodologies. Core criteria: authenticity; uniqueness; and additionality. Core principle: conservatism. |
| Third party validation and verification | Undertaken in accordance with the rules of the applicable pilot scheme. | Undertaken by third parties that are duly approved and accredited by the SAMR and the MEE. |
| Regulatory authority | NDRC. | MEE. |

CHINA'S RELAUNCHED CCER SCHEME CHINA'S CCER SCHEME COMPARED WITH OTHER VCMS

This table compares some key features of China's relaunched CCER scheme against the VCMs currently operating in Australia, Japan, Malaysia and Singapore.

| Jurisdiction | VCM name | Year of launch | Principal unit traded | Exchange | Regulator | Methodologies / standards applied | Trading method | Registration | Use for CCM* compliance? |
|--------------|--------------------------|----------------------|-----------------------------------------------------------------------------------------|------------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Australia | ACCU scheme | 2011 | Australian Carbon Credit Units (ACCUs) | To be determined | Clean Energy Regulator | Six statutory integrity standards. Eligibility criteria according to the project type (or "method") | отс | Australian National Registry of Emissions Units | Yes, 30% limit. |
| China | CCER scheme | 2024 | China Certified Emissions Reductions (CCERs) | Beijing Green Exchange | Ministry of Ecology and the Environment (MEE) | MEE developed project methodologies | On exchange | National GHG Voluntary Emission Reduction Registration System | Yes, 5% limit. |
| Indonesia | IDXCarbon | 2023 | SPE-GRK** (for offset trading) and PTBAE- PU*** (for emissions trading) | Indonesia Carbon Exchange | Ministry of Environment and Forestry (MOEF) | Methodology determined by the MOEF or approved by the United Nations Framework Convention on Climate Change | Direct trade (B2B) or on exchange | Ministry of Environment and Forestry's Climate Change Control National Registry System | Yes, subject to further implementing regulations |
| Malaysia | Bursa Carbon Exchange | 2022 | Verified carbon units as certified by VERRA, having a vintage of 2016 or later | Bursa Carbon Exchange | Ministry of Natural Resources, Environment and Climate Change | Verified Carbon Standard as certified by VERRA | On exchange | VERRA registry | No CCM in operation |
| Singapore | Climate Impact X | 2022 | Units certified with certifiers such as VERRA or Gold Standard | Climate Impact X | Singapore Exchange | Standards that are applied include Verra and Gold Standard | On exchange | As per the rules of the underlying certifier (e.g., VERRA or Gold Standard) | No CCM in operation |

* 'CCM' refers to compliance carbon market

** 'SPE-GRK' refers to sertifikat penguranganemisi gas emisi rumah kaca

*** 'PTBAE-PU' refers to persetujuan teknis batas atas emisi bagi pelaku usaha

CHINA'S RELAUNCHED CCER SCHEME OPPORTUNITIES CREATED BY THE NEW CCER SCHEME

Achieving China's 30:60 target: The relaunch of China's CCER scheme is a significant development towards China meeting its commitments under the Paris Agreement to peak emissions by 2030 and be carbon neutral by 2060. The relaunched scheme is expected to drive carbon trading activity within China, further developing China's carbon trading credentials, and encouraging innovation onshore through the development of projects that have the capacity to reduce/remove emissions and facilitate China's transition to a sustainable economy.

Financing low-carbon transition: The revenues generated by projects that have the capacity to reduce/remove emissions will be an important source of capital to facilitate China's transition to a low-carbon economy.

International trade: China's ability to maintain (and strengthen) its trading relationships with other jurisdictions that impose a carbon levy on imported goods or otherwise require domestic enterprises to report details about the emissions that they generate (including the emissions generated within their value chains).

Cross-border trading opportunities: China's Measures for the Administration of Voluntary Reduction of Greenhouse Gas Emissions and Emissions Credits Trading (For Trial Implementation) provide that "specific provisions for cross-border trading and usage of CCER will be separately formulated by the MEE in conjunction with relevant departments". The prospect of crossborder trading of CCERs is therefore expressly contemplated, albeit subject to the enactment of additional legislative provisions. Whilst no formal timetable has been announced for the publication of such additional provisions, we anticipate that further announcements will be made in the near term. We also expect that any 'connect' scheme relating to the cross-border trading of CCERs will be implemented through Hong Kong. At the same time, a new model for cross-region cooperation within the Greater Bay Area in relation to climate change financing is being developed by the International Exchange Centre (Nansha) for Climate Investment and Financing. Measures approved in September 2023^[3] aim to develop and expand China's climate investment and financing system and attract domestic and foreign funds for application towards addressing climate change. These themes were further developed at the 2023 Pearl Bay International Climate Investment and Financing Conference^[4] which focused on "Climate Finance for a Better World, including serving the green, and low-carbon sector by creating a diverse, international financing system, and promoting the development of industries related to climate change mitigation in the Greater Bay Area.

Article 6 of the Paris Agreement: China has the geographic and technological capacity to develop high-integrity projects that reduce/remove CO2e emissions. Accordingly, the relaunch of China's CCER scheme is potentially significant for facilitating low-carbon transition for jurisdictions other than China pursuant to Article 6 of the Paris Agreement (which establishes a framework for bilateral trading of carbon credits between jurisdictions and the development of a global carbon market). For application under Article 6, it will be necessary for China to evidence that CCERs qualify as "internationally transferred mitigation outcomes" either for bilateral trading (under Article 6.2) or for trading within a global carbon market to be established (under Article 6.4).



[3] Normative Document No.8 [2023] of the Office of the Administrative Committee of Nansha Economic and Technological Development Zone of Guangzhou Municipality were published by the Office of Nansha District People's Government of Guangzhou Municipality on 28 September 2023.

[4] The 2023 Pearl Bay International Climate Investment and Financing Conference was held in Nansha District of Guangzhou on 17-18 November 2023. The conference was co-hosted by the People's Government of Guangdong Province, Xinhua News Agency, and the MEE.

CHINA'S RELAUNCHED CCER SCHEME HOW CHINA HAS ADDRESSED KEY VCM ISSUES

Key issues impacting the development of VCMs around the globe include:

market fragmentation / interoperability

market and environmental integrity

transparency and accountability

To try and address these key issues (that arise, in part, due to the multitude of different standards that apply within VCMs), China's relaunched CCER scheme follows a centralised model which:

- adopts centralised methodologies for CCER projects;
- requires validation and verification of CCER projects by centrally accredited bodies (each applying the centralised methodologies);
- stipulates that all trading must be carried out on a centralised basis through the Beijing Green Exchange;
- provides for registration of all trades with a centralised registration body (whose records are definitive); and
- imposes potential civil and criminal liability for non-compliance with applicable rules,

pursuant to the "Registration Rules for Voluntary Emission Reduction of Greenhouse Gases (for Trial Implementation)" (《温室气体自愿减排注册登记规则(试行)》, (the "Registration Rules") and the "Design and Implementation Guidelines for Projects of Voluntary Emission Reduction of Greenhouse Gases"(《温室气体自愿减排项目设计与实施指南》, (the "Guidelines").

The Registration Rules were promulgated to guide the registration process for the voluntary emission reduction of greenhouse gases in a standardized manner. They comprise 22 articles in 6 chapters that cover:

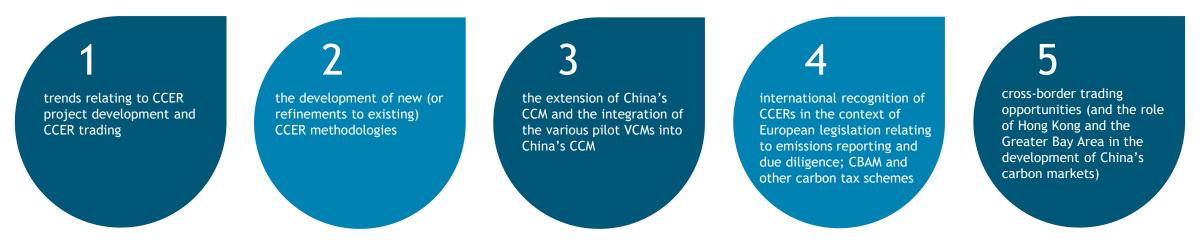
| (i) general provisions; | (ii) account management; | (iii) registration; | (iv) information management; | (v) supervision; and | (vi) supplementary provisions. |
|-------------------------|--------------------------|---------------------|------------------------------|----------------------|--------------------------------|
|-------------------------|--------------------------|---------------------|------------------------------|----------------------|--------------------------------|

A person is permitted to have a single registration account and use of the account may be restricted in certain circumstances (e.g., inconsistent information is provided or other violation of the registration rules). The registration authority registers and cancels all CCER projects and makes relevant information available for public search. CCER project entities and trading entities may search the registration system to verify the quality and status of CCERs held by a person. The registration authority is required to cooperate with national judicial and supervisory authorities as regards the data that it holds and (via cooperation with applicable environmental and ecological provincial authorities) link information relating to public projects and CCERs to the official website.

The Guidelines contain definitions and principles for the implementation CCER projects as well as the processes, requirements, and templates for the design and implementation of CCER projects (including rules relating to the execution, monitoring and accounting of CCERs).

CHINA'S RELAUNCHED CCER SCHEME WHAT'S NEXT?

Following the relaunch of China's CCER scheme, we are keeping a close eye on developments including:



As countries around the globe strive to achieve their carbon reduction targets under the Paris Agreement and generate the capital that they require to fund low-carbon transition, there is significant domestic and international interest in the development of a framework to facilitate cross-border carbon trading with the Mainland.

The potential for cross-border carbon trading with China stems from the relaunched CCER market.^[5] To facilitate such cross-border trading, it will be essential to develop a framework that permits offshore persons to register title to, trade, and leverage (by way of collateral) onshore carbon instruments, under a structure that:

- complies with China's strict capital controls;
- · provides certainty as regards cross-border repatriation; and
- provides certainty as regards cross-border dispute resolution and enforcement.

Through our extensive network across the Mainland and offshore, King & Wood Mallesons is uniquely placed to advise our clients about the latest developments relating to China's carbon markets and the potential opportunities for cross-border carbon trading, including through establishing (or working with a partner that has) a presence in the Mainland or via an existing 'connect' scheme.

We are excited to see what the future holds for China's carbon markets and their impact on the dynamics of global carbon markets.

[5] Participation in China's CCM is currently limited to designated, domestic, thermal power plants, and we expect that the expansion of China's CCM to other industry sectors (via the integration of the pilot VCMs over time) will similarly be limited to domestic enterprises in the applicable sectors to facilitate China meeting its 30:60 commitment to peak carbon emissions by 2030 and achieve net zero carbon emissions by 2060.

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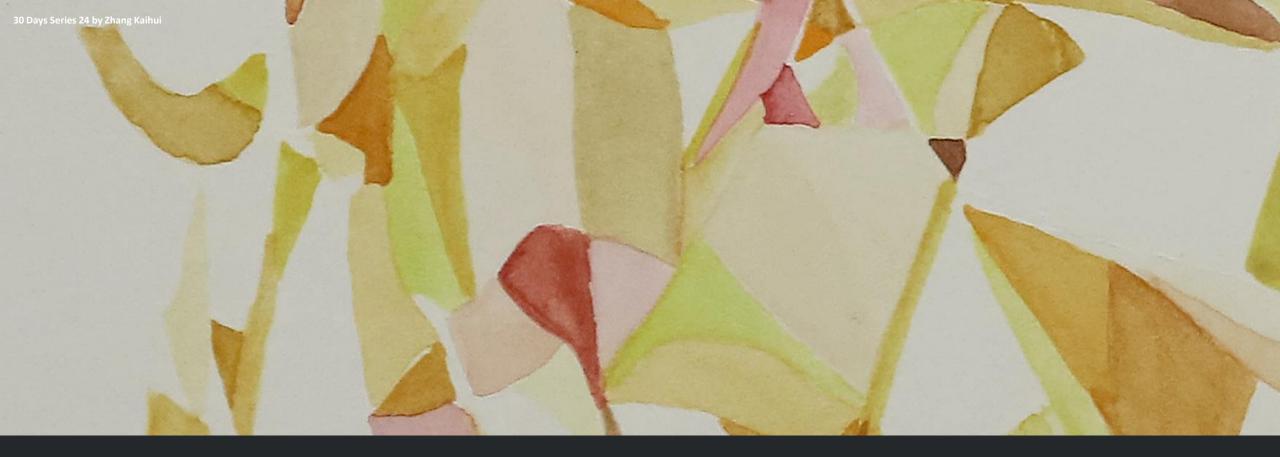
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