

Chinese Certified Emissions Reductions (Golden CCERs) Methodology

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Introduction

The Chinese Certified Emission Reduction (CCER) assessment or “Golden CCER” is an independent price assessment covering the China National Emissions Trading Scheme (National ETS).

The Golden CCER assessment aims to cover the offset market under the National ETS. The emissions allowances market under the National ETS is not covered under this assessment.

The Golden CCER assessments commenced on 16 June 2016. The assessments are complemented by supporting market commentary on the China carbon trading markets each week.

General methodology

ICIS continuously develops, reviews and revises its methodologies in consultation with industry participants. Contract/product specifications and trading terms and conditions used are intended to reflect typical working practices prevalent in the industry.

ICIS publishes market assessments based on information continuously gathered from market participants about spot transactions, spot bid and offer levels, contract price negotiations, prices of related commodities, and relevant freight costs.

ICIS does not make retrospective adjustments or changes to price assessments based on information received after publication time in all cases, or after any cut-off point specified in individual methodology documents.

ICIS regards all arm’s-length transactions that meet its specification criteria as carrying equal weight.

ICIS uses proprietary models where necessary to normalise data to the typical specifications for cargo size and date ranges given for each commodity.

Some ICIS assessments are the product of calculation alone – for example, in markets where insufficient market activity takes place to permit price assessment, or where a market habitually itself sets prices according to a formula. Those calculated assessments are noted as such in their detailed methodology specifications.

ICIS endeavours to cross-check all the transaction information it gathers. ICIS will not use information for assessment purposes where such checks call into doubt the accuracy of the original information, or where a transaction appears to have occurred under circumstances that render it non-repeatable or otherwise markedly unusual.

Rationale for Golden CCER methodology

This methodology is designed to discover the fair tradable value of eligible CCERs in the National ETS. ICIS deems its assessment to be appropriate and to represent repeatable trade. ICIS assesses the Golden CCER prices every Thursday, with the exception of public holidays (refer to publishing schedule). Only CCERs eligible for compliance in the National ETS are assessed, known as 'Golden CCERs'.

ICIS will only take into consideration contracts in which the seller guarantees to deliver a CCER eligible for submitting for compliance in the National ETS at the time of delivery – or, in the absence of an eligible CCER, a national allowance.

ICIS has taken a broad-based approach to include various scopes, types, regions, crediting periods and other conditions in its CCER assessments, to take into account as much trading activity as possible during this emerging market phase. The primary criterion is for the CCERs to be eligible for the National ETS.

The delivery time of the contract being assessed is indicated in the assessment. ICIS assesses the forward contract with the delivery date set at one quarter before the respective compliance deadline of the National ETS. Currently, the delivery date for the first compliance cycle is set at March 2018. The delivery time will change accordingly as the National ETS moves into the following compliance years. ICIS will add more delivery dates in its assessment if such contracts are traded actively in the market.

Delivery means electronic delivery, where the seller has to transfer the CCERs to the buyer through the National Registry.

Price assessments

General definitions: The published price assessments represent the bid-offer range for CCERs subject to the following criteria ("Golden CCER Contract"):

- The underlying is CCERs eligible for compliance in the National ETS;
- The contract is a physically delivered forward contract, the delivery date of which is one quarter before the respective compliance deadline (as stated in the assessment report).
- The minimum traded volume is 1,000 tonnes.

Publishing Date/Time: Weekly prices are assessed every Thursday, and the assessments are published every Thursday taking into consideration deals up to 17:00 Beijing time.

Where Thursday falls on a Chinese public holiday and the following Friday is a working day, the assessments will be published on that Friday. If Thursday falls during a Chinese public holiday of longer duration, the assessments will not be published for that week.

Traded prices are collected during the working week prior to and including the publication date. In a variable market, priority is given to deals completed closest to the date of publication and outlier trades excluded. Bids and offers are gathered on the date of publication to reflect the latest discussions and will play a role in assessments in the absence of traded prices. Supporting fundamental data will help provide the necessary context and justification for price movements.

ICIS adopts the 'best bid/best offer' rule where the bid level is represented by the highest firm bid, while offer is represented by the lowest firm price offered by sellers.

Guidelines for data prioritisation: ICIS gives priority to verified Golden CCER traded prices. However, in illiquid markets, ICIS will take into consideration transactions that fall outside the criteria of Golden CCER Contract as a guideline for price movements, especially if the contract is comparable to the Golden CCER criteria.

In the absence of traded prices or comparable transaction data, ICIS uses the 'best bid, best offer' rule in the price discovery process.

ICIS first attempts to establish a firm bid/offer spread as the basis for its assessments. A mid-point of the bid/offer spread is also provided.

While every effort is made to obtain firm price levels, ICIS will consider indicative bids and offers as evidence of market valuation at the early stages of the Chinese carbon market because of thin liquidity. However, any assessments where these are the primary source of information will be marked as indicative. Indicative bids and offers will also be given less weight in the assessment process.

In the absence of firm bid/offer or verified transactions, ICIS will use other types of market information to assess value. Other information includes but is not limited to:

- Spreads (between allowance and CCERs, between different delivery dates)
- Fundamentals (supply of CCERs, demand of allowances/offsets) provides context for price movements/direction.
- Interpolation/extrapolation (price change derived from pilot eligible CCER price movement)

Data used key: The assessment report will provide a concise description of which type of market data was used to form the assessment. There will be a key code for the primary data used, and any other types of information can be considered as supporting or secondary in the formation of the assessment.

The definition of the key is as follows:

- B -- Bid/Offer
- T -- Transactions
- S -- Spread
- I -- Interpolation/Extrapolation
- F -- Fundamentals

Exclusion of Data: In line with its Editorial Standards policy, ICIS reporters actively seek to identify anomalous market information and exclude it from the assessment process. For the Chinese carbon market assessments, this is done by the information gathering and verification process carried out by reporters, whereby market transactions and bid and offer information is confirmed and verified by multiple sources.

The context of ICIS reporters' knowledge of the fundamental supply/demand situation on a given market is also used to verify transaction data that appears to be anomalous but may be done at a price level explained by changes in the physical market.

In assessing the Chinese carbon market, ICIS takes into consideration only arm's length transactions between non-affiliated parties. ICIS also excludes trade from its assessment process should they be deemed (by the market) to be outlier deals or non-repeatable.

ICIS reserves the right to temporarily exclude companies from the price discovery process if they are found to provide trade data that was found to be unreliable or if they were later found to be unwilling to commit to their stated intentions.

ICIS actively seeks to verify the time at which reported transactions took place. If such verification cannot be obtained, ICIS may exclude the transaction information.

ICIS records instances of anomalous data and reviews these instances on a regular basis with a view to determine if a pattern exists.

Where market reporters have concerns over the behaviour of a market participant, this will be escalated using the ICIS Escalation Process for Compliance and Regulatory Issues. This can be found in the company's Compliance Manual.

Width of bid/offer spreads: As the Chinese market is at a very early stage of development, ICIS has not set a minimum or maximum bid-offer spread.

Types of market information used and collection process: ICIS gathers market information primarily via telephone, WeChat and e-mail. Market information includes bids, offers and deals done by sources or seen/heard by sources. Exchange traded information is also collected, but it requires further verification to include it in the assessment process. ICIS reporters also investigate the reasons for market price movements and cross-check information received against market fundamentals data.

Market fundamentals data includes the market supply and demand of the CCERs. Market supply is driven by government policies and offset issuance data. Such information is collected through government websites, and official CCER platforms. Market demand is based on the allowance allocation and emissions data, which is collected through verified news sources and corporate financial reports.

ICIS collects bids and offers information from a variety of sources. A typical contributors group is a mix of compliance companies, active traders, speculators, and institutional investors, both Chinese and international companies included.

ICIS will never use information received after assessments have been published to retroactively correct an assessment.

Verification of information providers: ICIS verifies sources as active participants in the market, and seeks evidence from participants that trading has been or can be done by the participant. Criteria for inclusion of a potential source may include a history of trading activity, access to a CCER registry account or exchange trading account, participation in trade as a facilitator of transactions (broker/consultant).

In addition, ICIS reporters use the indicators contained in the section entitled Validation Checks on Sources from the company's Data Standards Policy. This policy can be read in full in the ICIS Compliance Manual.

Currency conversions: Where traded prices or bid/offers gathered are not in Chinese yuan (CNY), ICIS adopts the exchange rate released by the People's Bank of China at 10:00 Beijing time on each working day. The exchange rate provided by ICIS is intended for reference only and may differ from the exchange rate released by local banks or other financial institutions.

Other principles and guidelines

Changes to methodology

All markets evolve, and ICIS has a duty to ensure its methodologies for market-reporting evolve in step with markets.

ICIS therefore regularly conducts internal reviews of the appropriateness of its methodologies.

Draft changes are then made public and comment requested from industry participants, with a minimum one-month notice period, except where, exceptionally, a *force majeure* event (natural disaster, war, bankruptcy of a trading exchange, etc.) makes necessary a shorter notice period.

ICIS is committed to reviewing all comments on proposed methodology changes, but in some cases may find it necessary to alter its methodologies against the wishes of some market participants.

In addition, ICIS has a formal methodology consultation process. The company commits to holding this consultation every three years. The date of the last consultation launched and the expiry date by which the company commits to conducting the next consultation can be seen at the top of the methodology document.

Please also refer to the Methodology Consultation Process section of the company's Compliance Manual. This contains detailed flow charts documenting the internal and external review and consultation process.

Consistency

ICIS achieves consistency by requiring all assessors to understand and follow this detailed methodology as well as the company's Editorial Standards document.

In addition, ICIS employees are required to complete standard training before undertaking the work of a market reporter. Every reporter's work is peer reviewed daily and spot checked by senior management.

Adherence to these processes is documented at every stage.

Key submitter dependency

Because of the sometimes thinly-traded nature of certain markets and the existence of markets where there is a limited pool of active counterparties, ICIS does not employ minimum rules on the number of submitters. ICIS plays a key role in bringing price transparency and efficient trading to markets in the early stages of development.

Market communication

ICIS communicates with a broad range of market participants – traders, brokers, back-office employees, supply managers, operations personnel and company executives – to obtain market information.

ICIS communicates with participants by telephone, email, WeChat, instant messenger and face to face. All instant messenger, email communication and notes of any face-to-face communication are archived and details of telephone communication are logged and archived.

ICIS does not accept instant messenger communication from unknown parties, and reporters are required to verify a market participant's identity prior to using instant message communication.

ICIS reporters are bound by a Code of Conduct to report to their superiors any coercive or threatening communication from market participants, or any offers of inducements of any kind intended to influence an assessment.

Where improper communication appears to have taken place, ICIS will communicate in the first instance with senior management at the company or companies involved, and if necessary with relevant market authorities.

ICIS expects the highest standards of propriety from all market participants, and regards all communications from market participants as representative of the views of an individual's employer.

ICIS is committed to the highest levels of customer service, and has a formal feedback and complaints policy, which can be viewed here:

<http://www.icis.com/about/icis-feedback-policy>

Market data verification

ICIS will always make best endeavours to confirm bids, offers and transactions with the relevant party/parties. ICIS attempts to cross-check all market data received from a buy or sell-side participant with a participant's trading counterparty.

Where both counterparties to a transaction cannot or will not confirm the data, ICIS seeks corroboration from other market sources.

Where ICIS has grounds to doubt an item of market data, it may request further evidence that a transaction has taken place, including documentary evidence.

In markets with low liquidity and a low number of counterparties, ICIS may choose to use unconfirmed data, but only in so far as it is aligned with other market information and comes from a source deemed reliable by ICIS based on previous interactions.

Minimum data threshold

Because of the sometimes thinly-traded nature of certain markets and contracts, ICIS does not have a minimum data threshold for its assessment methodologies in these markets. ICIS' Chinese Golden CCERs methodology is designed to function accurately under all market conditions and to make use of parallel data where no direct transaction or bid/offer data is available. See the section entitled "Guidelines for data prioritisation" above.

Units

In the Chinese carbon markets, most trading activity takes place in CNY/tonne of CO₂ equivalent (tCO₂e), which is the unit chosen by ICIS for its price assessments.

ICIS contact details

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