

# China - Fujian pilot ETS

## General Information

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### ETS Description

The province of Fujian launched its ETS in September 2016. It covers nearly 300 entities across nine sectors: electricity grid, petrochemicals, chemicals, building materials, iron and steel, nonferrous metals, paper, aviation, and ceramics. The ETS covered electricity generation until 2019, after which the sector was incorporated into the national ETS.

Covered entities must surrender allowances for all their covered emissions, and allocation is based predominantly on free allocation, using benchmarking or grandparenting based on production levels. Auctioning may take place when considered appropriate by the ETS authorities.

The Fujian ETS pilot has a special focus on carbon sinks. In 2017, the Fujian government outlined a plan to promote forestry offset projects in the province. By the end of 2023, 4 million forestry offset credits had been traded in the Fujian ETS.

Unlike other Chinese pilots, which were mandated by the National Development and Reform Commission (NDRC), the mandate for the Fujian ETS came from the State Council with the endorsement of the “National Ecological Civilization Pilot Area (Fujian) Implementation Plan”. In the short term, it operates in parallel with the national carbon market. As the national ETS expands to new sectors, covered entities in these sectors will be integrated into the national ETS.

### ETS Status

in force

### Jurisdictions

Fujian

### Year in Review

In January 2024, the Fujian Provincial Ecology and Environment Bureau (EEB) released the draft allocation plan for 2023. The draft plan is similar to the 2022 allocation plan, with slightly reduced benchmarks and changes to the base year for the grandparenting method.

### Sectoral coverage

Domestic Aviation

Industry

### Revenue usage

General budget, including debt reduction

## Emissions & Targets

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### Overall GHG Emissions excl. LULUCF (MtCO<sub>2</sub>e)

299.81 MtCO<sub>2</sub> (2021)\*

\* No data is publicly available for more recent years. Data here is provided by local experts. Previously reported data is based on public sources from the launch year of the ETS in 2014, of 240.0 MtCO<sub>2</sub>.

### GHG reduction targets

**By 2030:** Peak CO<sub>2</sub> emissions (Carbon Working Guidance)

**By 2060:** Achieve carbon neutrality (Carbon Working Guidance)

### Current Allowance Price (per t/CO<sub>2</sub>e)

Average secondary market price: CNY 21.52 (USD 2.99) (updated prices available [here](#))

## Size & Phases

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### Covered emissions (2020)

38.00%

### GHGs covered

CO<sub>2</sub>

### Phases

2016-ongoing

### Cap or total emissions limit

A cap limits the total emissions allowed in the system. The cap in recent years has been as follows:

2016 to 2018: ~200 MtCO<sub>2</sub>

2019: ~220 MtCO<sub>2</sub>\*

2020: ~126 MtCO<sub>2</sub>

2021: 131.72 MtCO<sub>2</sub>

2022: 116.22 MtCO<sub>2</sub>

The cap comprises three elements: existing entities' allowances, the new entrants' reserve, and the market stability reserve.

\* There is no public data on the total cap or its elements. This number is based on an estimate by experts. The cap for 2019 was estimated to cover 87% of carbon emissions.

### Sectors and thresholds

Petrochemical, chemical, building materials, iron and steel, nonferrous metals, paper, aviation, and ceramics. Electricity production was covered until 2019, after which it transitioned to the Chinese national ETS.

### INCLUSION THRESHOLDS:

**2016 to 2019:** Energy consumption of 10,000 tonnes of coal equivalent (tce) per year, for any year between 2013 and 2019.

**2020 to 2021:** Emitters with energy consumption of 5,000 tce or more in any year from 2013 to 2020 were also included.

**2022:** Emitters with energy consumption of 5,000 tce or more in any year from 2019 to 2022 were further included.

### Point of regulation

Point source (industry, aviation); downstream (indirect emissions from electricity and heat consumption).

## Type of entities

Companies

## Number of entities

293 (2022)

# Allowance Allocation & Revenue

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## Allowance allocation

Allowances are distributed for free, using benchmarking or grandparenting. A pre-allocation method is adopted for the annual allowance allocation. Allocation is then adjusted ex-post to reflect the actual production in the respective compliance year.

### FREE ALLOCATION:

**Benchmarking:** Benchmarking is applied to the grid operator cement, ordinary steel (non-stainless), aluminum, plate glass, chemical and aviation sectors.

**Grandparenting:** The remaining sectors are allocated allowances based on historical carbon intensity. These entities can also apply for more allowances as a reward for early mitigation action.

According to the 2022 allocation plan, compliance obligations are limited. For sectors using the benchmarking method, the minimum allocation is 80% of their verified emissions and the maximum is 120%. For sectors using historical intensity methods, the surplus or shortfall is limited to 3 to 10% of verified emissions, according to their emission levels. On top of this limitation, the maximum amount of surplus or shortfall is 200,000 tCO<sub>2</sub>e.

**AUCTIONING:** Auctioning may take place when considered appropriate by the ETS authorities (see 'Market Stability Provisions' section) and may be introduced as a method for allowance allocation over time. Up to 10% of the total cap is reserved for market intervention.

In order to increase market liquidity and price discovery, the Fujian DRC organized a discriminatory (non-uniform price) auction of 50,000 allowances in 2016 from the government reserve, with the settlement prices ranging from CNY 26.50 (USD 3.68) to CNY 30 (USD 4.17). No further auctions have taken place to date.

## Total Revenue

CNY 1.25 million (USD 173,672) since beginning of program\*

\* The Fujian ETS has held only one auction, in 2016, which provided 50,000 allowances at a floor price of CNY 25 (USD 3.47) per tonne. The exchange did not disclose the final volume and price. The calculation here assumes that all allowances were sold at the floor price.

## Use of Revenues

Revenues are attributed to the central treasury.

# Flexibility & Linking

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## Offset credits

The use of domestic project-based carbon offset credits (CCERs) and Fujian Forestry Certified Emission Reduction credits (FFCERs) is allowed.

**QUANTITATIVE LIMITS:** The use of CCERs is limited to 5% of the annual compliance obligation. The limit is increased to 10% for companies that use both FFCER and CCER offset credits.

**QUALITATIVE LIMITS:** Eligible offset credits are restricted to those generated in Fujian province from entities not regulated under the ETS, and from CO<sub>2</sub> or CH<sub>4</sub> reduction projects. Hydropower-related offset credits are not eligible. FFCER projects from three project types

(afforestation, forest management, and bamboo management) are eligible if implementation took place after mid-February 2005 and if the project developers have independent legal status.

### **Banking and borrowing**

Banking is allowed.

Borrowing is not allowed.

### **Links with other Systems**

The Fujian ETS is not linked with any other system.

### **Other carbon pricing instruments in the jurisdiction**

**ETS:** Chinese national ETS

**Domestic crediting mechanisms:** Local Forest offset credits in Fujian (FFCER)

**Domestic crediting mechanism (national):** China Certified Emissions Reduction (CCER)

## **Compliance**

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### **Compliance mechanism**

Covered entities must surrender one allowance per tCO<sub>2</sub>e emitted for all their covered emissions, and allocation is based primarily on free allocation.

### **Compliance Period**

One calendar year. Covered entities have until the end of June of the following year to surrender allowances.\*

\* This is according to the “Interim Measures of the Fujian ETS”. In practice, the provincial government releases executive notices to guide the timeline of the annual compliance cycle.

### **Monitoring, Reporting, Verification (MRV)**

**MONITORING:** Covered entities are required to set up monitor plans and monitor their emission based on these plans.

**REPORTING:** Annual reporting of CO<sub>2</sub> emissions to the competent authority before the end of February of the following year.

**VERIFICATION:** Third-party verification is required for all annual emissions reports. In addition, further validation is carried out by government-assigned experts for ~30% of the reports to further enhance accuracy; this process is also called “fourth-party verification” in China.

**FRAMEWORK:** The Fujian DRC and the Fujian Statistical Bureau jointly released a guiding document on monitoring and reporting that includes a monitoring plan template, using national measuring and reporting guidelines. In addition, the Fujian DRC and the Fujian Quality and Technical Supervision Bureau jointly released criteria for the administration of third-party verifiers.

### **Penalties and enforcement**

**REGULATED ENTITIES:** Penalties for failing to submit an emission or verification report on time, providing false information, or disturbing the verification process range from CNY 10,000 (USD 1,389) to CNY 30,000 (USD 4,168). Companies failing to surrender enough allowances to match their emissions are fined between one to three times the average market price of the past 12 months per missing allowance, with a maximum limit of CNY 30,000 (USD 4,168). Additionally, twice the amount of the missing allowances can be withdrawn from the account of the company or deducted from the following year’s allocation.

**TRADING INSTITUTIONS:** Penalties for misconduct, such as not publishing relevant trading information, failing to establish and implement a risk management system or leaking commercial secrets, can range from CNY 10,000 (USD 1,389) to CNY 30,000 (USD 4,168).

**THIRD-PARTY VERIFIERS:** Penalties for misconduct, such as publishing false reports, reporting with errors, leaking commercial secrets, or participating in the market, can range from CNY 10,000 (USD 1,389) to CNY 30,000 (USD 4,168).

In addition, in 2018, the Fujian DRC released guidelines concerning ETS non-compliance information management, providing further details on recording and misbehaviors and corresponding incentives and penalties. Incentives for ETS compliance include priority lending, priority approval for project administration, and reduced frequency of inspections. Punishments for non-compliance include restrictions on approval of new projects, increased frequency of inspections, and a record in the bank credit system.

## Market Regulation

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### Market Stability Provisions

#### RESERVE

**Instrument type:** N/A

**Functioning:**

5% of the sum of the calculated allowance from covered entities is kept as a government reserve for market stabilization. The Fujian EEB can organize irregular auctions according to market demand, no fixed triggers are envisaged.

#### EXCHANGE

**Instrument type:** Price-based instrument

**Functioning:** The exchange limits day-to-day price fluctuations to a 10% move in either direction for listed trading, as well as 30% for block trading. Only transactions within this price range can be successfully completed on the exchange.

#### Market Design

**MARKET PARTICIPATION:** Compliance entities and institutional investors (domestic only) that meet the requirements of the emissions trading rules set up by Fujian EEB.

#### MARKET TYPES:

**Primary:** While most allowances are allocated for free, the Fujian Haixia Equity Exchange organizes ad hoc auctions for the primary market. So far, only one auction has been held.

**Secondary:** Spot trading of Fujian Emission Allowances (FJEA), CCERs and FFCERs takes place on the Fujian Haixia Equity Exchange.

**LEGAL STATUS OF ALLOWANCES:** Allowances are not considered financial instruments.

## Other Information

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### Institutions involved

**Fujian Provincial Ecology and Environment Bureau:** Responsible for establishing the Fujian ETS after governmental restructuring in 2019.

**Fujian Haixia Equity Exchange:** Responsible for operating the trading platform.

**Fujian Economic and Information Center:** Responsible for operating the registry, market management, and MRV administration.

### Regulatory Framework

[2020 Amendments to the Interim Measures](#)

[Fujian Provincial Ecology and Environment Bureau – Allocation Plan for 2022](#)

[Fujian Provincial Ecology and Environment Bureau – Allocation Plan for 2023](#) (draft)

### Evaluation / ETS review

Research on improving the Fujian ETS has been undertaken every year, funded by the local government.

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