

United Kingdom

General Information

ETS Description

The UK Emissions Trading Scheme (UK ETS) started in January 2021. Many design elements of the new system mirror those in phase 4 of the EU ETS, in which the UK had participated since 2005. The UK ETS covers energy-intensive industries, the power sector, and aviation within the UK and European Economic Area (EEA), together making up about one-third of the UK's GHG emissions.

The scheme's cap is 5% below the UK's notional share of the EU ETS cap (i.e., the EUAs that would have been available to the UK government for allocation) and declines by 4.2 Mt per year initially. To ensure market stability, the system has a Cost Containment Mechanism (CCM) and – quite distinct from the EU ETS – a transitional Allowance Reserve Price of GBP 22 (USD 30.26). To safeguard competitiveness and minimize the risk of carbon leakage, a share of allowances will be freely allocated to emissions-intensive trade-exposed (EITE) sectors using an approach similar to phase 4 of the EU ETS.

The UK government remains open to the possibility of linking the UK ETS to other systems, but no decision has been made on the preferred linking partners. Phase 1 of the UK ETS will run until 2030. The entire scheme is due to be reviewed in 2023 and 2028, with ongoing reforms and developments of specific elements in the meantime.

ETS Status

in force

Jurisdictions

United Kingdom

Year in Review

The first UK Allowance (UKA) auction took place in May 2021, with all of the more than 6 million allowances on offer sold at the market clearing price of GBP 43.99 (USD 60.50), well above the auction reserve price of GBP 22.00 (USD 30.26). The same day marked the start of UKA futures trading and, a week later, the government transferred the first free UKAs for the 2021 scheme year to eligible regulated entities. The introduction of new allowances to the market has since continued through twice-monthly auctions.

An auction in early October 2021 of just under 5.19 million UKAs partially cleared, with ~ 4.15 million UKAs being sold at GBP 60.00 (USD 82.52). As per the scheme's rules, the bids below this price level were deemed too far below the secondary market price at the time and the 1.04 million unsold UKAs were distributed across the four subsequent auctions. All other auctions in 2021 cleared fully.

The monthly average UKA prices in September, October and November 2021 were above the CCM trigger price of GBP 52.88 (USD 72.73). The Authority announced its decision not to intervene on in mid-December. The CCM was triggered again in January 2022 and an announcement was made in mid-January that, again, no intervention would be made (see 'Market Stability Provisions' section).

Sectoral coverage

Domestic Aviation
Industry
Power

Emissions & Targets

Overall GHG Emissions excl. LULUCF (MtCO₂e)

453.1

GHG reduction targets

BY 2030: At least a 68% reduction in UK net GHG emissions from 1990 levels, including emissions from LULUCF (UK NDC – Dec 2020)

BY 2035: Limit UK net GHG emissions to 965 MtCO₂e over 2033-37, including emissions from LULUCF and international aviation and shipping (Carbon Budget Order 2021)

BY 2050: Net-zero UK GHG emissions, including emissions from LULUCF and international aviation and shipping (The Climate Change Act 2008 (2050 Target Amendment) Order 2019)

Size & Phases

Covered emissions (2019)

28.00%

Verified ETS Emissions

126.90MtCO₂e

GHGs covered

CO₂, N₂O, PFCs

Phases

PHASE ONE: 10 years (2021-2030)

Cap

FIRST ALLOCATION PERIOD (2021-2025): 736 MtCO₂e, to be adjusted to reflect the hospital and small emitter opt-outs.

SECOND ALLOCATION PERIOD (2026-2030): 630.1 MtCO₂e, to be adjusted to reflect the hospital and small emitter opt-outs.

The cap was set at 5% below the UK's notional share of the EU ETS cap for its fourth phase. The annual cap for 2022 is 151.4 MtCO₂e and will decline by 4.2 MtCO₂e each year, which is approximately a 2.8% reduction in 2022. Allowances for the New Entrants' Reserve (NER) are part of the overall cap.

In its "[Net Zero Strategy: Build Back Greener](#)" paper published in October 2021, the government reiterated its commitment to consult on an appropriate cap trajectory consistent with its net zero GHG emissions target by 2050 and stated its goal to implement such a trajectory "by January 2023, or January 2024 at the latest".

Sectors and thresholds

POWER SECTOR & INDUSTRY: The ETS applies to a specified list of activities of installations in the power and industry sector. This includes activities involving the combustion of fuels in installations with a total rated thermal input exceeding 20 MW, as well as activities in refining, heavy industry, and manufacturing. Power generators in Northern Ireland still fall under the EU ETS, as they are part of the integrated Single Electricity Market with the Republic of Ireland.

In addition to the power sector's participation in the UK ETS, the UK's Carbon Price Support (CPS) policy imposes a minimum carbon price of GBP 18/tCO₂ (USD 24.76) for power generators using fossil fuels. The CPS will continue to support the decarbonization of the power sector and will stay in place at least until unabated coal-fired power generation is phased out. The government has committed to end the use of unabated coal by 2024.

Small Emitter and Hospital Opt-Out Scheme: Hospitals and small emitters with emissions below 25,000 tCO₂e per year and a net-rated thermal input lower than 35 MW can opt out of the ETS and instead monitor and report their emissions and meet annual emission reduction targets. This approach is similar to the UK's opt-out scheme in Phase 3 of the EU ETS.

Ultra-Small Emitter Exemption: For stationary installations emitting less than 2,500 tCO₂e per year, an ultra-small emitter exemption is in place. These installations are required to monitor emissions and notify the regulator if emissions exceed the threshold.

AVIATION: Emissions are included from flights within the UK and flights from the UK to and from Gibraltar or to a country within the EEA. Exemptions are made for aircraft operators with fewer than 243 flights per calendar year for three consecutive four-month periods or total annual emissions of less than 10,000 tonnes of CO₂.

ADDITIONAL SECTORS: The UK government has committed to explore expanding the scope of the UK ETS to the two-thirds of uncovered emissions. This could also include how the UK ETS could incentivise the deployment of GHG removal technologies.

Point of regulation

Downstream

Number of entities

~1,000 installations

Allowance Allocation & Revenue

Allowance allocation

AUCTIONING: Auctioning is the primary means of allowance allocation under the UK ETS. Auctions have a GBP 22 (USD 30.26) transitional Auction Reserve Price (ARP). The UK will consult on its intent to withdraw the ARP as part of the planned consultation to appropriately align the UK ETS with a net zero trajectory. Auctions clear even when not all allowances are sold. Unsold allowances are carried over to the next four auctions, up to a limit of 125% of those originally intended for sale at that auction. If all four subsequent auctions have reached the 125% limit, the remaining unsold allowances are transferred into a reserve in the Market Stability Mechanism Account.

Around 84 million allowances were auctioned in 2021, resulting in total revenues of GBP 4.3 billion (USD 5.91 billion). As set out in the auction calendar, around 80 million UKAs will be sold in 2022.

FREE ALLOCATION: A number of allowances are allocated for free to industrial participants at risk of carbon leakage. The number of free allowances that an installation is entitled to is determined using the historical activity level, an industry benchmark, and a carbon leakage exposure factor (CLEF). The benchmarks and CLEFs that have been used initially are those of the EU ETS during phase 4. Historical activity levels are also based on data collected under the EU ETS. These parallels will likely result in comparable levels of free allocations for an installation in the UK ETS as it would have received in phase 4 of the EU ETS.

The maximum number of allowances allocated for free (industry cap) is initially set at the UK's notional share of the EU ETS industry cap for phase 4, which is ~58 million allowances for 2021 (~37% of the UK ETS cap) and will decline by 1.6 million per year.

An "Allocation Table", which lists the volume of free allowances for each installation for the first allocation period, was first published in May 2021. The table has since been updated in January 2022 and will be updated again in early 2022 to reflect Activity Level Changes (see below for more detail on this) and 2022 free allocation.

If an installation is included in the "Allocation Table", they must submit a verified Activity Level Report (see 'Compliance' section). If the data in the Activity Level Report shows an increase or decrease in activity of 15% or more from historic activity levels (calculated from the previous two years' activity levels), the free allocation will be recalculated.

A review of free allocation in the UK ETS started with a call for evidence in spring 2021 and a further consultation is expected in 2022.

NER: A reserve of free allowances is set aside for installations that become eligible for participation within Phase 1 and for covered installations that significantly increase their activity level. In line with the EU ETS phase 4 approach, free allowance amounts are adjusted when activity levels of an installation increase or decrease by more than 15%. The number of free allowances for new entrants is determined based on their activity in the first year of operation, industry benchmark, and CLEF.

Total Revenue

GBP 4.3 billion (USD 5.9 billion)

Use of Revenues

The “Autumn Budget and Spending Review 2021” confirmed that, since March 2021, the UK government will have committed a total of GBP 30 billion (USD 41.26 billion) for the Green Industrial Revolution, supported in part by UK ETS revenue. Revenues from the Emissions Trading Scheme help to support these vital investments as well as other public services.

Flexibility & Linking

Offsets and credits

The use of offsets for compliance is not permitted at this time, although the UK government has indicated it is open to reviewing this as the scheme evolves, especially in deciding on how to implement obligations under the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) alongside the ETS for aviation.

Banking and borrowing

Banking of allowances is permitted, and allowances remain valid indefinitely.

Limited and implicit borrowing is allowed, i.e., using allowances allocated for free in the current year for compliance in the previous year. Covered entities are not allowed to use allowances left over from their participation in the EU ETS for compliance with the UK ETS.

Links with other Systems

No link with another system is currently in place. The UK government has indicated it is open to the possibility of internationally linking the scheme in the future, but has not made any decision on preferred linking partners. The post-Brexit Trade and Cooperation Agreement between the EU and UK stipulates that the jurisdictions “shall give serious consideration to linking their respective carbon pricing systems in a way that preserves the integrity of these systems and provides for the possibility to increase their effectiveness.”

Compliance

Monitoring, Reporting, Verification (MRV)

REPORTING FREQUENCY: Annual self-reporting

VERIFICATION: Verification by independent accredited verifiers is required before the end of March each year.

FRAMEWORK: The UK ETS has adopted the MRV framework of phase 4 of the EU ETS, including discretionary changes regarding reduced frequency of improvement reporting and the simplification of monitoring plans.

Enforcement

Regulated entities must pay an excess emissions penalty for each tonne of CO₂ emitted without surrendering a permit. This penalty is equal to GBP 100/tCO₂e (USD 137.54) initially but is adjusted for inflation over time. The names of non-compliant operators are published.

Compliance Period

One calendar year. Covered entities have until the end of April of the following year to surrender allowances. These provisions are the same as under the EU ETS.

Market Regulation

Market Stability Provisions

SUPPLY ADJUSTMENT MECHANISM (SAM): The UK ETS Authority has set out the possibility of establishing a SAM. This could be broadly based on the EU ETS Market Stability Reserve (MSR), although adaptations would be required to suit the UK context. Due to the need to collect verified UK emissions data, any SAM could not be operational until mid-2022 at the earliest. The UK ETS Authority will consult

separately on the design of a SAM if required in due course. There is a transitional ARP in place to ensure minimum price continuity (see 'Allocation' and 'Transitional Auction Reserve Price (ARP)' sections).

COST CONTAINMENT MECHANISM (CCM): The UK ETS has a CCM to avoid spikes in allowance prices by auctioning additional allowances. If the CCM is triggered, regulators can decide on whether and how to intervene. The intervention can include: redistributing allowances between the current year's auctions; bringing forward allowances from future years; drawing from the Market Stability Mechanism Account; or the auctioning of up to 25% of remaining allowances in the NER.

The CCM was triggered in December 2021 and January 2022, following which the UK ETS Authority met and agreed that the appropriate decision was not to intervene in the market.

Triggers: In the first two years of the UK ETS, the CCM has lower price and time triggers than the equivalent EU ETS provisions, to ensure its reactivity. In the first year, the CCM is triggered if, for three consecutive months, the UK ETS carbon price is double the average allowance price in effect in the UK in the two preceding years.

From February 2022, the CCM will be triggered if the allowance price is more than two and a half times the average price for preceding two-year reference period, for three consecutive months. From February 2023 onwards, the CCM will be triggered if the allowance price is three times the average price for the reference period for six consecutive months.

TRANSITIONAL AUCTION RESERVE PRICE (ARP):

To ensure a minimum level of ambition in the transition from the EU ETS to the UK ETS, a transitional ARP of GBP 22 (USD 30.26) is in place. No further changes to the level of the ARP are planned before it is likely withdrawn as the UK ETS matures. The UK government will consult on its intent to withdraw the ARP as part of the planned consultation to appropriately align the UK ETS cap with a net zero trajectory.

Market Design

MARKET PARTICIPATION: Compliance entities, non-compliance entities (domestic and international) and individuals.

MARKET TYPES:

Primary: Auctions are managed by ICE Futures Europe and are held every two weeks, as set out in the auction calendar. Bidders in the auction bid for a number of lots. The minimum bid size is one lot, and each lot represents 500 allowances.

Secondary: UKA daily futures allow market participants to trade contracts for the delivery of allowances on specified dates in the future. Trading is managed by ICE Futures Europe.

LEGAL STATUS OF ALLOWANCES: The "Recognised Auction Platforms (Amendment and Miscellaneous Provisions Regulations 2021) Affirmative Statutory Instrument" establishes UKAs as financial instruments.

Other Information

Institutions involved

- UK Department for Business, Energy & Industrial Strategy
- HM Treasury
- UK Department for Transport
- Scottish Government
- Welsh Government
- Northern Ireland Executive
- Environment Agency UK
- Scottish Environment Protection Agency
- Natural Resources Body for Wales
- Northern Ireland Environment Agency
- Offshore Petroleum Regulator for Environment and Decommissioning

Regulatory Framework

- [The Greenhouse Gas Emissions Trading Scheme Order 2020](#)
- [The Climate Change Act 2008 \(2050 Target Amendment\) Order 2019](#)

Evaluation / ETS review

Phase 1 includes two mandatory whole-system reviews. The first review must be carried out by the end of 2023 and the second by the end of 2028. A report will be published on the conclusions of each review round. Changes to the ETS design following the reviews should be implemented by 2026 and 2031, respectively.

In addition to the whole-system reviews, the government will conduct targeted reviews of inter alia free allocation for stationary installations and aviation and changes required to align with CORSIA.

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