

## KOREA ETS AT A GLANCE

July 2025

<b>Years in operation</b>	<p>The Korea ETS was launched in 2015 as the first mandatory nationwide ETS in East Asia. The ETS is being implemented in phases:</p> <p>Phase 1: 2015-17</p> <p>Phase 2: 2018-20</p> <p>Phase 3: 2021-25</p> <p><b><u>Phase 4: 2026-30</u></b></p>
<b>Overall cap and trajectory</b>	<p>Phase 1 had a cap of 1,704.18 million tCO<sub>2</sub>e while Phase 2 had a cap of 1,796.13 MtCO<sub>2</sub>e.</p> <p>Phase 3 has a cap of 2,902 MtCO<sub>2</sub>e, and 180 Mt in reserves (14 million for market stabilisation, 20 million for market formation, and 146 million for new entrants and other purposes).</p>
<b>Target(s)</b>	To reduce GHG emissions to 40% below 2018 levels by 2030, and to achieve net-zero emissions by 2050
<b>Emissions</b>	<p>The Republic of Korea's total greenhouse gas (GHG) emissions amounted to 690 million tons in 2021, 671 million tons in 2022, and a provisional estimate of 647.9 million tons in 2023. This represents a 3.5% decrease compared to 2022, according to government statistics released in January 2025.</p> <p><b>In the same year, verified emissions under the Emissions Trading Scheme (ETS) amounted to 563 million tons, accounting for approximately 87% of the national total emissions.</b></p>
<b>Sectors covered</b>	<p>Power Industry Buildings Transportation Maritime Waste Domestic Aviation Public/Others</p> <p>Business entities with annual average GHG emissions of at least 125,000 tCO<sub>2</sub>e, and individual facilities with annual average GHG emissions of at least 25,000 tCO<sub>2</sub>e.</p>
<b>GHGs covered</b>	<p>CO<sub>2</sub> Methane N<sub>2</sub>O HFCs PFCs SF<sub>6</sub> Indirect emissions from electricity consumption</p>
<b>Number of covered entities</b>	815 companies (as of March 2025)
<b>Allocation method</b>	<p>The K-ETS employs two methods of allocating allowances: grandfathering (GF) and benchmarking (BM). In Phase 3, the GF method is applied to all sub-sectors except for 12 (cement, oil refining, aviation, power generation, energy and industrial complex, district cooling and heating, and waste, steel, petrochemicals, building, pulp and paper, timber).</p> <p>In Phase 3, less than 90% of allowances will be freely allocated, with the rest sold at auction. Energy-intensive and trade-exposed (EITE) sectors will receive 100% free</p>

	<p>allocation. EITE eligibility will be based on a leakage index*. All local government units, schools, medical institutions, and public transportation operators also qualify for 100% free allocation.</p> <p><i>*Leakage index = (production cost x trade intensity) &gt; 0.2%</i></p>
<b>Trading rules</b>	<p>Allowances can be traded via exchange and/or OTC. Tradable units are Korea Allowance Units (KAU*), Korea Credit Units (KCU**), and Korea Offset Credits (KOC***).</p> <p>During Phase 1, trading was strictly between compliance entities while financial institutions acting as market-makers joined in Phase 2. Third-party institutions such as financial firms and brokers joined in Phase 3.</p> <p><b>* Korean Allowance Unit (KAU):</b> Emission allowances allocated by the government to entities covered under the K-ETS.</p> <p><b>** Korean Credit Unit (KCU):</b> Offset credits converted from certified KOC and used by entities to meet their compliance obligations.</p> <p><b>*** Korean Offset Credit (KOC):</b> Certified greenhouse gas (GHG) reduction units from external projects. International credits, such as CERs from CDM projects, can be registered as external reduction activities in Korea and converted into KCUs for compliance use. Projects implemented by domestic companies abroad under Article 6 of the Paris Agreement may be certified starting from Phase 3. Further guidance is expected.</p>
<b>Use of offsets and linking</b>	<p>In Phase 3, the offset limit submission has been reduced to a maximum of 5% of each entity's compliance obligations, regardless of its classification, from 10% in Phase 2.</p> <p>As of 2021 vintage, the valid period for KOC in the K-ETS has been extended from 3 years to 5 years. Following this change, the credit vintages were renamed to reflect their extended validity—for example, KOC21–26 or KOC25–30 indicating the years in which the credits can be used.</p>
<b>Other features</b>	<p>Banking in the K-ETS is allowed with certain limitations. Intra-phase borrowing is allowed, limited to 15% of an entity's obligation in Phase 3. However, the limit will decrease in accordance with the entity's past borrowing transactions and is calculated using the formula: 15% - (previous year's borrowing rate * 50%)</p> <p>For Phase 4, the government is expected to ease the banking limitations compared to Phase 3 to allow for more liquidity, according to the 4th Basic Plan of K-ETS released on 31 December 2024.</p> <p>The K-ETS has 14 million allowances in a market stabilisation reserve.</p> <p>The Allocation Plan for Phase 4 (2026-2030) is expected to be released before the end of June 2025 as per the K-ETS Act.</p>
<b>Penalties for non-compliance</b>	<p>The penalty for non-compliance shall not exceed three times the average market price of the given compliance year or KRW 100,000 per tonne. (USD 73.39 per tonne).</p>
<b>Use of revenue</b>	<p>Revenues from K-ETS auctions are directed to the Climate Response Fund, which supports emission mitigation infrastructure, low carbon innovation, and tech development for Small and Medium sized enterprises. The upcoming 4th allocation plan (due in June 2025) is expected to increase the share of auctioning and improve the management of Climate Response to better support industry needs.</p>

## MAJOR DEVELOPMENTS

The South Korea ETS was launched in 2015 as the first mandatory nationwide ETS in East Asia and is currently in its 3<sup>rd</sup> Implementation Phase. With a coverage of 563 million tons, representing approximately 87% of the total emissions of the country, the policy plays a key role in delivering on South Korea's decarbonisation targets.

**During the 2023 compliance year (September 2023 – August 2024)**, KAU23 prices ranged from KRW 7,640 to KRW 14,600, with an average of KRW 8,684. A total of 67.55 million tonnes was traded on the exchange, amounting to KRW 586.6 billion. Following a market stabilization measure in late July 2023 that set a KRW 7,020 floor for KAU22, KAU23 also fell below KRW 10,000. After becoming the benchmark allowance on September 1, KAU23 opened at KRW 7,750. KAU23 then surged to KRW 14,600 within six trading days after policy updates released on September 12 signalled a relaxation of banking rules and extension of the offset credit conversion period. Prices weakened steadily through November, reaching KRW 7,750 on November 28. A price floor was introduced to prevent further declines, and the market briefly recovered above KRW 10,000 in December. Toward the end of August 2024, ahead of the compliance deadline, buying by allowance-short entities drove prices to a yearly high of KRW 11,300 before closing the compliance year at KRW 9,950. See below figure 1.

**In the current 2024 compliance year (September 2024 – time of writing)**, KAU24 prices ranged from KRW 8,400 to KRW 12,550, with an average of KRW 9,582. So far, a total of 54.72 million tonnes have been traded on the exchange, amounting to KRW 524.3 billion. After banking rules were eased in September 2023, allowing unlimited carryover for allowance-short entities, the demand — led by power generators— supported prices throughout 2024. KAU24 trading picked up from September, and despite the typical off-season, prices remained stable around KRW 10,000, buoyed by active auction participation and expectations following the end of KAU23 trading. Further policy changes limiting supply, including stricter cancellation criteria and eased banking for allowance-surplus entities, pushed prices higher, reaching an intraday peak of KRW 13,000 in late October 2024. However, continued large-scale auctions in Q4 reversed the trend. Prices fell sharply after December, triggering market volatility controls on December 20. Market makers intervened for six trading days, and December trading volume surged nearly 694% from the previous month. KAU24 recovered to KRW 9,490 by year-end and has since moved within a narrow range of KRW 8,630 to KRW 9,690 through mid-May 2025 amid limited market catalysts.

**In December of 2024, the government released the Fourth Basic Plan for the K-ETS, outlining the overall policy direction for Phase 4.** Enacted in February 2025, this outlines a comprehensive long-term roadmap for the next decade, fundamentally restructuring the system's direction and framework to better support the achievement of national greenhouse gas (GHG) reduction targets. Find below the major changes introduced in Phase 4. A more detailed Allocation Plan is expected to be announced in June 2025, providing specific implementation measures.

### The Fourth Basic Plan for the K-ETS

#### 1. Strengthening of Total Emissions Cap and Expansion of Auctioning

Starting from the 4th allocation period (2026–2030), the government has incorporated the Market Stability Reserve (previously outside the cap) into the total emissions cap, reinforcing the overall cap-setting mechanism. Furthermore, the proportion of allowances to be auctioned for the power sector will be significantly increased. For non-power sectors, the level of auctioning will be adjusted, taking into consideration the industrial competitiveness and the commercialization timeline of emissions reduction technologies. From the 5th allocation period (2031–2035), the government plans to consider setting reduction targets under the K-ETS that exceed South Korea's Nationally Determined Contribution (NDC).

## **2. Reform of the Allocation System and Enhanced Support for Corporate Reductions**

To better incentivize emission reduction efforts, the allocation system has been restructured. During the 4th allocation period, the use of benchmark-based (BM) allocations will be expanded to cover more than 75% of eligible participants. Benchmark values will also be progressively tightened to improve emissions efficiency. Revenues expected from the expansion of auctions will be reinvested into companies' mitigation efforts, including support for carbon contracts for difference (CCfD), and research, development, and demonstration of core carbon-neutral technologies.

## **3. Enhancement of Market Functionality and Financial Market Integration**

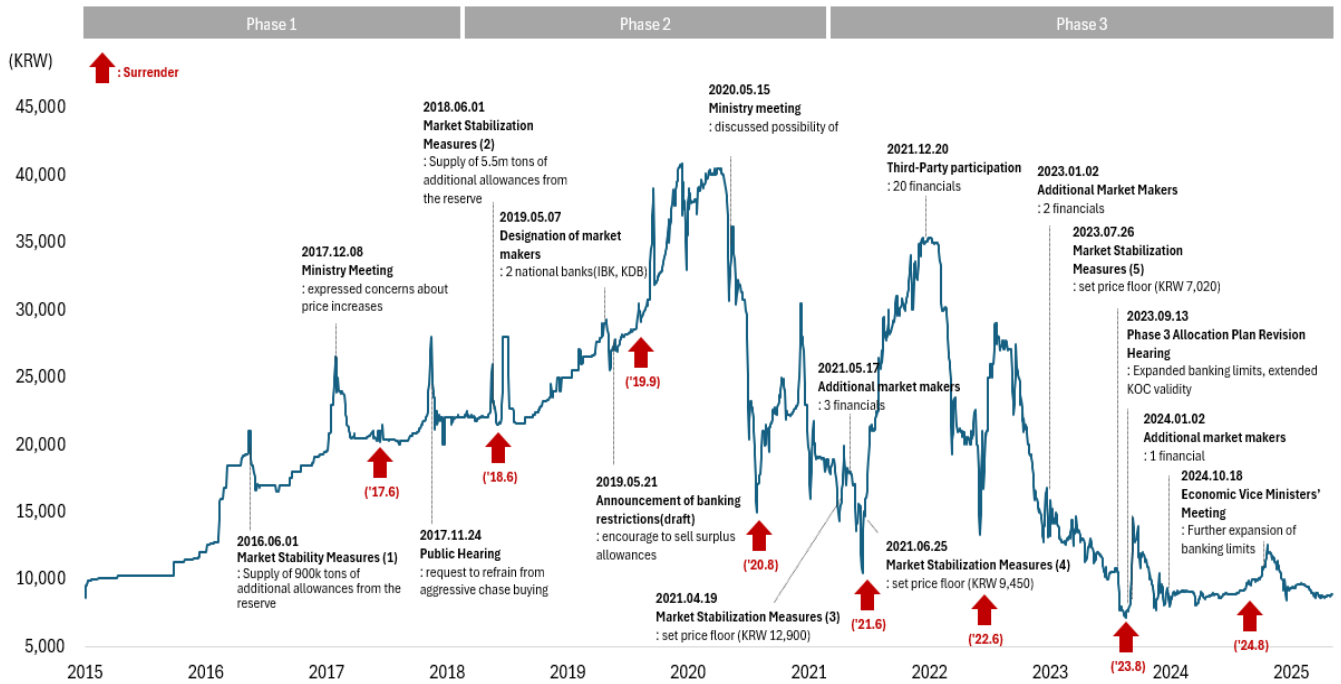
To improve the fairness and efficiency of the ETS, the government has streamlined classification systems and strengthened market functions. From the 4th allocation period, the number of sectors for emissions cap setting will be simplified from six to two (power and non-power), and the criteria for determining auction eligibility will be improved to better reflect the characteristics of different industries and reduce uncertainty stemming from market price volatility. Greater flexibility will also be allowed in banking (carryover) of allowances, and broader third-party participation will be promoted to vitalize the market. In October 2024, the South Korean government expanded the carryover limit for emission allowances from three times to five times the net sales volume. Moreover, mechanisms such as entrusted trading and futures trading will be further developed to integrate the ETS into the broader financial market.

## **4. Introduction of the Korean-Style Market Stability Mechanism**

To ensure a stable and predictable operation of the carbon market, the government will introduce a Korean-style Market Stability Mechanism starting in the 4th allocation period. This system will automatically adjust the supply of allowances in the market based on pre-announced criteria. Within the total cap, the government will hold a predetermined quantity of reserve allowances and adjust supply through auctions or absorption depending on market conditions.

**These institutional reforms are expected to enhance market efficiency and broaden participation, thereby contributing significantly to South Korea's GHG reduction goals through a more robust and dynamic K-ETS.**

Figure 1. KAU Developments (2015 – May 2025)



## USEFUL LINKS

[Ministry of Environment](#)

[Carbon Neutrality Commission](#)

[Korea Exchange](#)

[Greenhouse Gas Inventory and Research Center](#)

[Ecoeye International](#)

[International Carbon Action Partnership](#)

## REFERENCES

[Republic of Korea's Enhanced Update of 1<sup>st</sup> Nationally Determined Contribution](#) (English)  
[Framework Act on Carbon Neutrality and Green Growth for Coping with Climate Crisis](#) (English)  
[Enforcement Decree of the Framework Act on Carbon Neutrality and Green Growth for Coping with Climate Crisis](#) (English)  
[Enforcement Decree of the Act on the Allocation and Trading of Greenhouse Gas Emission Permits](#) (Korean)  
[Act on the Allocation and Trading of Greenhouse Gas Emission Permits](#) (Korean)  
[2030 Greenhouse Gas Reduction Roadmap](#) (Korean)  
[National Greenhouse Gas Inventory \(1990-2020\)](#) (Korean)  
[Phase 4 Basic Plan](#) (Korean)

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