

Japan GX-ETS

General Information

ETS Description

Japan started its GX-ETS as a voluntary baseline-and-credit system during its first phase spanning FY2023 and FY2025. In the FY2026, which started in April 2026, the GX-ETS transitioned to a mandatory baseline-and-credit system.

Under the GX-ETS, allowances are traded on the market. Upper and lower price limits apply. From FY2033, auctioning will be introduced for high-emitting corporations in the power sector.

More than 700 companies, accounting for over 50% of national GHG emissions, participated in the voluntary ETS.

Japan combines several carbon pricing instruments to help achieve net zero emissions by 2050: an existing carbon tax, the ETS, and a carbon levy (GX-Surcharge) to be introduced from 2028 on fossil fuel importers and domestic fossil fuel extractors. Plans for this are outlined in the Basic Plan for the “Green Transformation (GX) Policy”, Japan’s ten-year decarbonization strategy.

Japan is actively participating in international carbon markets. Its Joint Crediting Mechanism (JCM) is a bilateral scheme to incentivize decarbonizing technologies and mitigation actions in 31 partner countries. JCM credits are eligible for use in the GX-ETS. Separately, 90 partner countries and over 300 organizations have joined Japan’s global capacity-building initiative, the Article 6 Implementation Partnership.

ETS Status

in force

Jurisdictions

Japan

Year in Review

The mandatory GX-ETS began in April 2026, following a three-year voluntary phase and the adoption of the “Amended GX Promotion Act” by the Upper House of the Parliament in May 2025.

Over the course of 2025, the Ministry of Economy, Trade and Industry (METI) held several working group meetings to consult stakeholders on various design aspects of the mandatory GX-ETS such as benchmarks and grandfathering for setting the baselines and upper and lower price limits of emission allowances.

Sectoral coverage

Maritime

Domestic Aviation

Transport

Industry

Power

Emissions & Targets

Overall GHG Emissions excl. LULUCF (MtCO₂e)

1,070.9 MtCO₂e (2023)

GHG reduction targets

By FY2030: 46% reduction from FY2013 GHG levels, including LULUCF credits; and continue efforts to cut emissions by 50% (NDC 1.0)

By 2050: Net zero GHG emissions (NDC 2.0)

Size & Phases

GHGs covered

CO₂

Phases

PHASE 1: Three years (2023 to 2025) (voluntary phase)

PHASE 2: Seven years (2026 to 2032)

Cap or total emissions limit

A bottom-up absolute cap limits the total emissions allowed in the system and is fixed ex-ante.

Sectors and thresholds

PHASE 1: voluntary

PHASE 2: all sectors

INCLUSION THRESHOLDS: Companies with annual CO₂ emissions of 100,000 tonnes or more in power, industry, transport and aviation as well as in other sectors if their annual CO₂ emissions exceed the 100,000 tonnes threshold.

Point of regulation

Point source

Type of entities

Companies

Number of entities

More than 700 entities in voluntary phase; 300-400 entities in the mandatory phase.

Allowance Allocation & Revenue

Allowance allocation

PHASE 1: Voluntary participation

PHASE 2: Free allocation with benchmarking and grandfathering

Benchmarking applies for:

- Paper (Western-style paper)
- Paperboard
- Soda (sodium carbonate manufacturing)
- Carbon black
- Organic chemical products

- Petroleum refining
- Rubber products
- Plate glass
- Glass bottles
- Cement
- Lime
- Lime nitrogen (calcium cyanamide)
- Electric furnace general steel
- Electric furnace special steel
- Aluminum
- Automobiles
- Power generation (gas, coal, oil, etc.)
- Freight automobile transportation
- Domestic marine transportation
- Air transportation

Allocation based on grandparenting applies to other sectors.

Use of Revenues

Revenues from auctioning for power generation companies, together with revenues from the fossil fuel surcharge, will be used to redeem GX Economic Transition Bonds.

Flexibility & Linking

Offset credits

PHASE 1: The use of offset credits was allowed.

PHASE 2: The use of offset credits is allowed.

QUALITATIVE LIMITS: Domestic (J-Credits) and international (JCM credits) credits are allowed with quantitative limits.

QUANTITATIVE LIMITS: The use of offset credits is capped at 10% of an entity's compliance obligation.

Banking and borrowing

Banking: There are currently no regulations for banking in place, but the government is examining the possibility of implementing banking rules in FY2027.

Borrowing is not allowed.

Links with other Systems

The GX-ETS will not be linked with any other system.

Other carbon pricing instruments in the jurisdiction

- **Carbon tax:** Tax for Climate Change Mitigation on fossil fuels since 2012
- **Carbon tax:** GX-Surcharge on fuel imports and domestic extractors (upcoming, FY2028)
- **Sub-national ETSs:** in Tokyo and Saitama
- **Domestic and international crediting mechanism:** J-Credits and JCM credits

Compliance

Compliance mechanism

Covered entities must surrender one compliance unit per tCO₂ that exceeds the facility's annual emissions limit.

Compliance Period

One Year

Monitoring, Reporting, Verification (MRV)

FRAMEWORK: GX Promotion Act

REPORTING: Covered entities must submit their emissions reports annually by January 31 of the year following the reporting year.

VERIFICATION: Emissions reports require third-party verification by an accredited verifier.

Penalties and enforcement

If the required number of allowances cannot be surrendered, a payment equal to the shortfall in emission allowances × upper price × 1.1 must be made.

Market Regulation

Market Stability Provisions

INSTRUMENT NAME: N/A

Instrument type: Price-based instrument

Functioning: When allowance prices rise above an established upper price limit, entities can meet their obligations by paying the upper limit.

Upper price limit in FY2027: JPY 4300 (USD 28.73)

When a certain number of days pass with trading prices below the lower limit, a reverse auction will be held to balance the supply and demand for allowances.

Lower price limit in FY2027: JPY 1700 (USD 11.36)

Other Information

Institutions involved

Ministry of the Environment: Administers the J-Credit and JCM schemes; tasked with developing carbon pricing in Japan jointly with METI.

Ministry of Economy, Trade, and Industry (METI): Administers the implementation of the J-Credit and JCM schemes; responsible for the GX League; tasked with developing carbon pricing in Japan jointly with the Ministry of Environment.

Central Environment Council: Advisory body to the Japanese Cabinet.

GX Acceleration Agency: Established to carry out operations related to the ETS and the GX-Surcharge system.

Regulatory Framework

[GX Basic Plan](#)

[GX Promotion Act](#)

[Cabinet Decision on the Bill for the Act for Partially Amending the Act on the Promoting Transition to the Decarbonized Growth Economic Structure and the Act on the Promotion of Effective Utilization of Resources](#)

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