

## Japan - Tokyo Cap-and-Trade Program

### General Information

Summary	<p><b>Status:</b> ETS in force</p> <p><b>Jurisdictions:</b> Tokyo Metropolis</p> <p>Launched in April 2010, the Tokyo ETS—the cap-and-trade program of the Tokyo Metropolitan Government (TMG)—is Japan’s first mandatory ETS and is linked to the Saitama ETS. Under the ETS, large offices and factories are required to reduce emissions by 15% or 17% in its second period (FY2015-FY2019). The target in the third period (FY2020-2024) is expected to be 25% or 27%.</p> <p><a href="#">The Tokyo Metropolitan Security Ordinance and Regulation for the Enforcement of the Tokyo Metropolitan Environmental Security Ordinance</a></p> <p><a href="#">Detailed documents</a> on the Tokyo ETS can be found on the TMG website.</p>												
Year in Review	<p>In FY2016, emissions were reduced by 26% compared to base-year emissions. The introduction of high-efficiency heat sources and light fittings have been key activities in reducing emissions in the building sector. Buildings have continued to decrease emissions despite an increase in gross floor space, indicating a decrease in emissions intensity in the sector.</p>												
Overall GHG emissions (excluding LULUCF)	<p><b>Emissions:</b> 66.0 MtCO<sub>2</sub>e (2016)</p>												
Overall GHG emissions by sector	<table border="1"> <thead> <tr> <th>Sector Name</th> <th>MtCO<sub>2</sub>e</th> </tr> </thead> <tbody> <tr> <td>Commercial</td> <td>25.7</td> </tr> <tr> <td>Residential</td> <td>16.8</td> </tr> <tr> <td>Transport</td> <td>11.1</td> </tr> <tr> <td>Industry</td> <td>4.8</td> </tr> <tr> <td>Waste</td> <td>1.7</td> </tr> </tbody> </table>	Sector Name	MtCO <sub>2</sub> e	Commercial	25.7	Residential	16.8	Transport	11.1	Industry	4.8	Waste	1.7
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Overall GHG reduction target	<p><b>BY 2020:</b> 25% reduction from 2000 GHG levels</p> <p><b>BY 2030:</b> 30% reduction from 2000 GHG levels</p>												
Carbon Price	<p><i>Current Allowance Price (per t/CO<sub>2</sub>e):</i> ~JPY 650 (USD 5.89) (estimated standard transaction price in 2018)</p>												

### ETS Size

Emissions covered by the ETS	0.20
GHG covered	CO <sub>2</sub>

Sectors covered and thresholds	<p>Consumption of fuels, heat, and electricity in commercial and industrial buildings.</p> <p>Building owners are subject to surrender obligations, but large tenants (floor space above 5000m<sup>2</sup> or over six million kWh electricity usage per year) can assume obligations jointly or in place of building owners.</p> <p><b>INCLUSION THRESHOLDS:</b> Facilities that consume energy more than 1,500kL of crude oil equivalent or more per year.</p>
Point of regulation	Downstream
Number of liable entities	<p>1,200 facilities: office/commercial buildings: 1000, factories: 200</p> <p>No information available yet.</p>
Cap	<p>A Tokyo-wide cap is aggregated from emissions baselines set at the facility level. The baselines at the facility level are calculated according to the following formula: Sum of base year emissions of covered facilities x compliance factor x number of years of a compliance period (five years).</p> <p><b>Compliance factor:</b>  <b>FIRST PERIOD (FY2010-FY2014):</b> 8% or 6% reduction below base-year emissions  <b>SECOND PERIOD (FY2015-FY2019):</b> 17% or 15% reduction below base-year emissions  <b>THIRD PERIOD (FY2020-FY2024):</b> 25% or 27% reduction below base-year emissions (expected compliance factors)</p> <p>The higher compliance factor applies to office buildings, as well as to district heating and cooling (DHC) plant facilities (excluding facilities that use a large amount of DHC). The lower compliance factor applies, among others, to office buildings, facilities which are heavy users of DHC plants, and factories.</p> <p>Facilities demonstrating outstanding performance in emissions reductions, as well as in the introduction, use, and management of energy equipment, are certified as top-level facilities that receive lower compliance factors according to their rate of progress. The certification standards represent the highest-level energy efficiency measures currently feasible, stipulating more than 200 different energy-saving measures.</p>

## Phases & Allocation

Trading period	<p><b>FIRST PERIOD:</b> 1 April 2011 to 30 September 2016</p> <p><b>SECOND PERIOD:</b> 1 April 2015 to 30 September 2021</p> <p><b>THIRD PERIOD:</b> 1 April 2020 to 30 September 2026</p> <p>Each of the above trading periods includes an 18-month adjustment period.</p>
Allocation	<p>The baselines for facilities are based on historical emissions, calculated according to the following formula: Base-year emissions x (1 - compliance factor) x compliance period (5 years).</p> <p>Base-year emissions for the first compliance period are based on the average emissions of three consecutive years between FY2002-2007, as chosen by each entity. Credits are issued to facilities whose emissions fall below the baseline.</p> <p>Baselines for new entrants are based on past emissions or on emissions intensity standards.</p>

## Flexibility

Banking and borrowing	Banking is only allowed between consecutive compliance periods. Borrowing is not allowed.
Offsets and credits	<p>Credits from four offset types are allowed in the Tokyo ETS.</p> <p><b>SMALL AND MID-SIZE FACILITY CREDITS:</b> Emissions reductions from non-covered small- and medium-sized facilities in Tokyo.</p> <p><b>Quantitative Limits:</b> None.</p> <p><b>OUTSIDE TOKYO CREDITS:</b> Emission reductions achieved from large facilities outside of the Tokyo area. Large facilities are those with an energy consumption of 1,500kL of crude oil equivalent or more in a base-year, and with base-year emissions of 150,000t or less.</p> <p><b>Quantitative Limits:</b> Credits are only issued for the reduction amount that exceeds the compliance factor. These credits can be used for compliance for up to one-third of facilities' reduction obligations.</p> <p><b>RENEWABLE ENERGY CREDITS:</b> Credits from solar (heat, electricity), wind, geothermal, or hydro (under 1,000kW) electricity production are counted at 1.5 times the value of regular credits. Credits from biomass (biomass rate of 95% or more, black liquor is excluded) are converted with the factor 1. These credits encompass the following types: Environmental Value Equivalent, Renewable Energy Certificates, and New Energy Electricity, generated under the Renewable Portfolio Standard Law.</p> <p><b>Quantitative Limits:</b> None.</p> <p><b>SAITAMA CREDITS (VIA LINKING):</b></p> <p>(1) Excess Credits: Emissions reductions from facilities in Saitama with base-year emissions of 150,000 tonnes or less. Issuance of credits from FY2015.</p> <p>(2) Small- and Mid-size Facility Credits issued by Saitama Prefecture. Issuance of credits from FY2012.</p> <p><b>Quantitative Limits:</b> None. All offsets have to be verified by verification agencies.</p> <p><b>EMISSIONS REDUCTION METHODS:</b></p> <p>(1) Low Carbon Electricity and Heat: In order to evaluate energy efficiency efforts of the covered facilities, CO2 emission factors of supply side (electricity and others) are fixed during each compliance period. When covered facilities procure electricity or heating from TMG-certified suppliers with lower emission factors, they can reduce the difference between these emission factors from their emissions to be reported to TMG.</p> <p>(2) Renewable Energy: When covered facilities generate electricity from renewable sources for their own use, they can deduct this amount of electricity from the total energy usage of the facility.</p>
Market Stability Provisions	In general, covered facilities trade over the counter and TMG does not control carbon prices. However, TMG offers offset credits for trading in case of excessive price development.

## Compliance

Compliance Period	<p>Five years</p> <p><b>FIRST PERIOD:</b> FY2010-2014</p> <p><b>SECOND PERIOD:</b> FY2015-2019</p> <p><b>THIRD PERIOD:</b> FY2020-2024</p>
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Monitoring, Reporting, Verification (MRV)	<p><b>REPORTING FREQUENCY:</b> Annual emissions reporting, including emission reduction plans. All seven GHGs have to be monitored and reported: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, PFCs, HFCs, SF<sub>6</sub>, and NF<sub>3</sub>. Large tenants, i.e., those with a floor space above 5000m<sup>2</sup> or over six million kWh electricity use per year, are required to submit their own emissions reduction plan to TMG in collaboration with building owners.</p> <p><b>VERIFICATION:</b> These annual reports require third-party verification.</p> <p><b>FRAMEWORK:</b> These are based on 'TMG Monitoring/Reporting Guidelines' and 'TMG Verification Guidelines.'</p>
Enforcement	<p>In the case of noncompliance, the following measures may be taken:</p> <p><b>FIRST STAGE:</b> The Governor orders the facility to reduce emissions by the amount of the reduction shortfall multiplied by 1.3.</p> <p><b>SECOND STAGE:</b> Any facility that fails to carry out the order will be publicly named and subject to penalties (up to JPY 500,000 [USD 4,528]) and surcharges (1.3 times the shortfall).</p>

## Linking

Links with other Systems	<p>Linking with the Saitama Prefecture started in April 2011 when the Saitama ETS was launched. Tokyo and Saitama credits are officially eligible for trade between the two jurisdictions. During the first compliance period, 15 credit transfers took place between the Saitama Prefecture and Tokyo (nine cases from Tokyo to Saitama, six cases from Saitama to Tokyo).</p>
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## Other Information

Institutions involved	Tokyo Metropolitan Government
Evaluation / ETS review	<p>TMG has established a committee to analyze the structure of its system post-2020. From FY2020, the program will enter into a new stage to promote continued energy-savings and expanding the utilization of low-carbon (renewable) energy to achieve the 2030 target and transition to a zero-carbon society.</p>
Revenue	No information available yet.
Implementing Legislation	<p><a href="#">The Tokyo Metropolitan Security Ordinance and Regulation for the Enforcement of the Tokyo Metropolitan Environmental Security Ordinance</a></p> <p><a href="#">Detailed documents</a> on the Tokyo ETS can be found on the TMG website.</p>

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