

## Japan - Tokyo Cap-and-Trade Program

### General Information

<p>Summary</p>	<p><b>Status:</b> ETS in force</p> <p><b>Jurisdictions:</b> Tokyo Metropolis</p> <p>Launched in April 2010, the Tokyo Metropolitan Government's Cap-and-Trade Program (Tokyo ETS) is Japan's first mandatory ETS. Under the Tokyo ETS, large offices and factories are required to reduce emissions by 6% or 8% in the first period (FY 2010-2014). Now in its second period, the target has increased to 15% or 17%.</p> <p>In FY2015, 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 generating emission reductions. Emission reductions have continued alongside increases to gross floor space, indicating a decrease in emissions intensity of the building sector in Tokyo.</p> <p><a href="#">TMG Bureau of Environment Website on Tokyo Cap and Trade</a></p> <p><a href="#">Official Documents on the Toyko Cap and Trade Program</a></p>												
<p>Overall GHG emissions (excluding LULUCF)</p>	<p><b>Emissions:</b> 65.9 MtCO<sub>2</sub>e (2015)</p> <p>The overall emissions figure for Tokyo is higher than the total of the emissions by sector because the former includes all GHGs in Tokyo, whereas the emissions by sector only measures CO<sub>2</sub> emissions.</p>												
<p>Overall GHG emissions by sector</p>	<table border="1"> <thead> <tr> <th>Sector Name</th> <th>MtCO<sub>2</sub>e</th> </tr> </thead> <tbody> <tr> <td>Commercial</td> <td>24.2</td> </tr> <tr> <td>Transport</td> <td>11.3</td> </tr> <tr> <td>Residential</td> <td>18.8</td> </tr> <tr> <td>Industry</td> <td>4.6</td> </tr> <tr> <td>Waste</td> <td>1.6</td> </tr> </tbody> </table>	Sector Name	MtCO <sub>2</sub> e	Commercial	24.2	Transport	11.3	Residential	18.8	Industry	4.6	Waste	1.6
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<p>Overall GHG reduction target</p>	<p><b>By 2020:</b> 25% reduction from 2000 GHG levels.</p> <p><b>By 2030:</b> 30% reduction from 2000 GHG levels.</p>												
<p>Type of ETS</p>	<p>Mandatory</p>												
<p>Cap and trajectory</p>	<p><b>Type of Cap:</b> Absolute</p> <p>The absolute cap is set at the facility level that aggregates to a Tokyo-wide cap.</p> <p>This is 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>Base-year emissions are the average emissions of three consecutive fiscal years selected by facilities between FY2002-FY2007.</p>												

	<p><b>Compliance factor:</b> First Period (FY2010-FY2014): 8% or 6% reduction below base-year emissions. Second Period (FY2015-FY2019): 17% or 15% reduction below base-year emissions.</p> <p>The higher compliance factors (8% and 17%) apply to office buildings, and district and cooling plant facilities (excluding facilities which use a large amount of district heating and cooling). The lower compliance factors (6% and 15%) apply among others to office buildings, facilities which are heavy users of district and cooling plants, and factories. Highly energy efficient facilities that have already made significant progress with regards to climate change measures are subject to half or three-quarters of the compliance factor.</p>
Carbon Price	<i>Current Allowance Price (per t/CO<sub>2</sub>e):</i> No information available yet.

## ETS Size

Emissions covered by the ETS	0,20
GHG covered	CO <sub>2</sub>
Sectors covered and thresholds	<p>Commercial and Industrial Sectors.</p> <p>Building owners are subject to surrender obligations but large tenants, those with a floor space above 5000m<sup>2</sup> or over 6 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>
Number of liable entities	<p>Approximately 1300 facilities</p> <p>In general a liable entity is defined as a single facility (installation). There are two exceptional cases where multiple facilities are regarded as a single facility: 1) multiple facilities with integrated energy management are regarded as a single facility as a whole. 2) Close or adjacent facilities owned by a common owner are regarded as a single facility. For buildings, case " 2)" applies only if the major users of the buildings are identical.</p>
Point of regulation	Downstream

## Phases & Allocation

Compliance period	<p>Five years.</p> <p><b>First Period:</b> FY2010-FY2014</p> <p><b>Second Period:</b> FY2015-FY2019</p> <p>Fiscal year runs from 1 April to 31 March.</p>
Trading period	<p><b>First Period:</b> 1 April 2011 to 30 September 2016 (compliance period and adjustment year)</p> <p><b>Second Period:</b> 1 April 2015 to 30 September 2021 (compliance period and adjustment year)</p>
Allocation	<p>Grandfathering 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-FY2007.</p>

Allocation to new entrants is based on past emissions or on emissions intensity standards: emissions activity (floor area) x emission intensity standard.

## Flexibility

Banking and borrowing	Banking is allowed between two compliance periods (e.g. banking from first to second compliance period is allowed. Banking from first to third is not). Borrowing is not allowed.
Offsets and credits	<p>Currently credits from four offset types are allowed in the TMG ETS.</p> <p><b>Small and Mid-size Facility Credits:</b> Total amount of emission reductions achieved by implementing emission reduction measures from non-covered small- and medium-sized facilities in Tokyo since FY2010. Issuance of credits from FY2011. Small and Mid-size Facility Credits can be used for compliance without limit.</p> <p><b>Outside Tokyo Credits:</b> Emission reductions achieved from large facilities outside of the Tokyo area. Large facilities: energy consumption of 1,500 kL of crude oil equivalent or more in a base-year, and with base-year emissions of 150,000t or less. Credits are only issued for the reduction amount that exceeds the compliance factor of 8%. Issuance of credits from FY2015. Outside Tokyo 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 1,000 kW) 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. Types of Credits: Environmental Value Equivalent, Renewable Energy Certificates and New Energy Electricity, generated under the Renewable Portfolio Standard Law. Renewable Energy Credits can be used for compliance without a limit.</p> <p><b>Saitama Credits (via linking), two types:</b></p> <ol style="list-style-type: none"> <li>1) Excess Credits of the Saitama Scheme: Emission reductions from facilities with base-year emissions of 150,000 tons or less. Issuance of credits from FY2015.</li> <li>2) Small and mid-size Facility Credits issued by Saitama Prefecture. Issuance of credits from FY2012. Saitama Credits can be used for compliance without a limit.</li> </ol> <p>All offsets have to be verified by verification agencies.</p> <p>Mechanism for Selecting Low Carbon Electricity: from FY2015, TMG has certified low carbon electricity producers with lower than average CO2 emissions factors. Covered entities that purchase electricity from low carbon suppliers will have their compliance obligation reduced accordingly.</p>
Provisions for price management	In general, TMG does not control carbon prices. However, the supply of credits available for trading may be increased in case of excessive price evolution.

## Compliance

Monitoring, Reporting, Verification (MRV)	<p><b>Reporting Frequency:</b> Participants are required to annually submit (fiscal year) their emission reduction plans and emissions reports. Seven GHG gases have to be monitored and reported: CO2 (non-energy related), CH4, N2O, PFCs, HFCs, SF6 and NF3. Large tenants, those with a floor space above 5000m2 or over 6 million kWh electricity use per year, are required to submit their own emission reduction plan to TMG in collaboration with building owners.</p> <p><b>Verification:</b> These reports also require third-party verification.</p> <p><b>Framework:</b> These are based on "TMG Monitoring/Reporting Guidelines" and "TMG Verification Guidelines".</p> <p><b>Other:</b> CO2 emission factors are fixed during the five year compliance period.</p>
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	Verified reduction amounts can be used for compliance, but cannot be traded with other facilities except energy-related CO <sub>2</sub> . Verification is required only when it is used for compliance.
Enforcement	<p>In case of non-compliance, the following measures may be taken in two stages:</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 4,460]) and surcharges (1.3 times the shortfall).</p>

## Other Information

Institutions involved	TMG Bureau of Environment
Linkage with other schemes	Linking with the Saitama Prefecture started in April 2011 when the Saitama ETS was launched. Credits from excess emission reductions and Small- and Mid-Size Facility Credits (offsets) are officially eligible for trade between the two jurisdictions. During the first compliance period, 14 credit transfers took place between the Saitama Prefecture and Tokyo (8 cases from Tokyo to Saitama, 6 cases from Saitama to Tokyo).

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