

## 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>The Tokyo Metropolitan Government Cap-and-Trade Program (TMG ETS) is Japan's first mandatory ETS launched in April 2010. Under the TMG ETS, large offices and factories are required to reduce emissions by 6%-8% in the first period (FY 2010-2014). Now in its second period, the target has increased to 15%-17%. In FY2014, emissions were reduced by 25% compared to base-year emissions.</p> <p><a href="#">TMG Bureau of Environment Website on Tokyo Cap and Trade</a></p> <p><a href="#">Official Documents on the Tokyo Cap and Trade Program</a></p>												
Overall GHG emissions (excluding LULUCF)	<p><b>Emissions:</b> 70.1 MtCO<sub>2</sub>e (2013)</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>26.2</td> </tr> <tr> <td>Transport</td> <td>11.7</td> </tr> <tr> <td>Residential</td> <td>20.8</td> </tr> <tr> <td>Industry</td> <td>5.1</td> </tr> <tr> <td>Waste</td> <td>1.7</td> </tr> </tbody> </table>	Sector Name	MtCO <sub>2</sub> e	Commercial	26.2	Transport	11.7	Residential	20.8	Industry	5.1	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> <p>NOTE: 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>												
Type of ETS	Mandatory												
Cap and trajectory	<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><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).</p>												

	<p>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	<p><i>Current Allowance Price (per t/CO<sub>2</sub>e):</i> No information available yet.</p>

## 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><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>1,291 facilities are covered by the program (as of 3 December 2015)</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> <p>Allocation to new entrants is based on past emissions or on emissions intensity standards: emissions activity (floor area) x emission intensity standard.</p> <p>More information: <a href="#">Official documents on the Tokyo Cap-and-Trade Program (Sections 3 (8-18))</a></p>

## 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>
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: CO<sub>2</sub> (non-energy related), CH<sub>4</sub>, N<sub>2</sub>O, PFCs, HFCs, SF<sub>6</sub> and NF<sub>3</sub>.</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> CO<sub>2</sub> emission factors are fixed during the five year compliance period.</p> <p>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.</p>
Enforcement	<p>In case of non-compliance, the following measures may be taken in two stages:</p> <p>First stage: The Governor orders the facility to reduce emissions by the amount of the reduction shortfall multiplied by 1.3.</p>

Second stage: Any facility that fails to carry out the order will be publicly named and subject to penalties (up to JPY 500,000 [EUR 3,776]) and surcharges (1.3 times the shortfall).

## Other Information

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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. Since excess emission reductions need to be confirmed at the end of the first compliance period, credits have only become tradable from 2015. As of December 2015, the first credits transfer took place between the two jurisdictions.

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