

Tokyo Metropolitan Government Climate Change Measures

Tokyo Cap and Trade Program



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Tokyo Cap-and-Trade



The world's first **urban cap and trade** program to cover office buildings

Target: Facilities with annual energy consumption of 1,500 kl or more (crude oil equivalent)

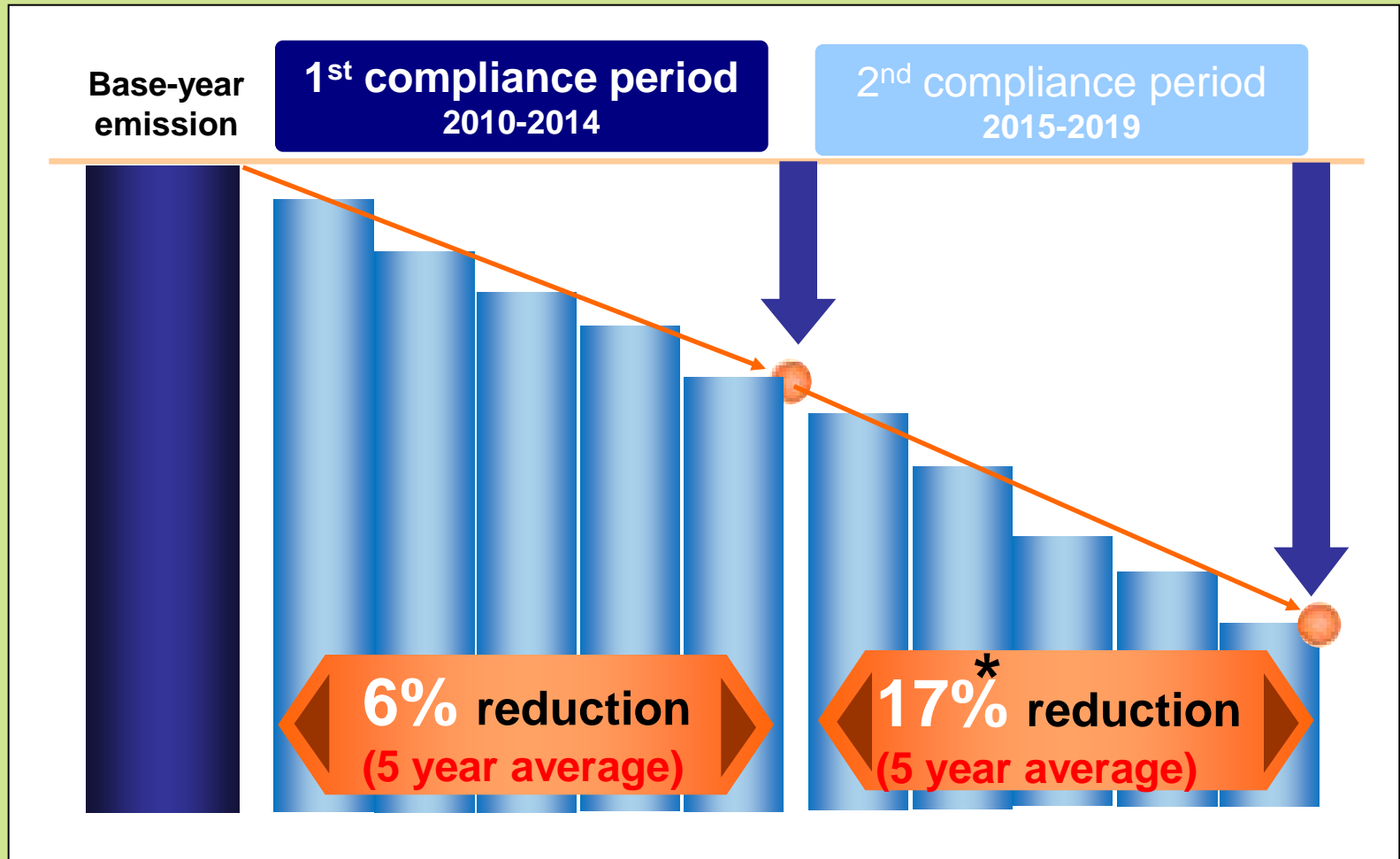
1,300 facilities

- 1,100 Commercial & institutional buildings
- 200 Industrial facilities



40% of commercial and industrial sectors' emissions

Tokyo Cap-and-Trade : Cap Setting



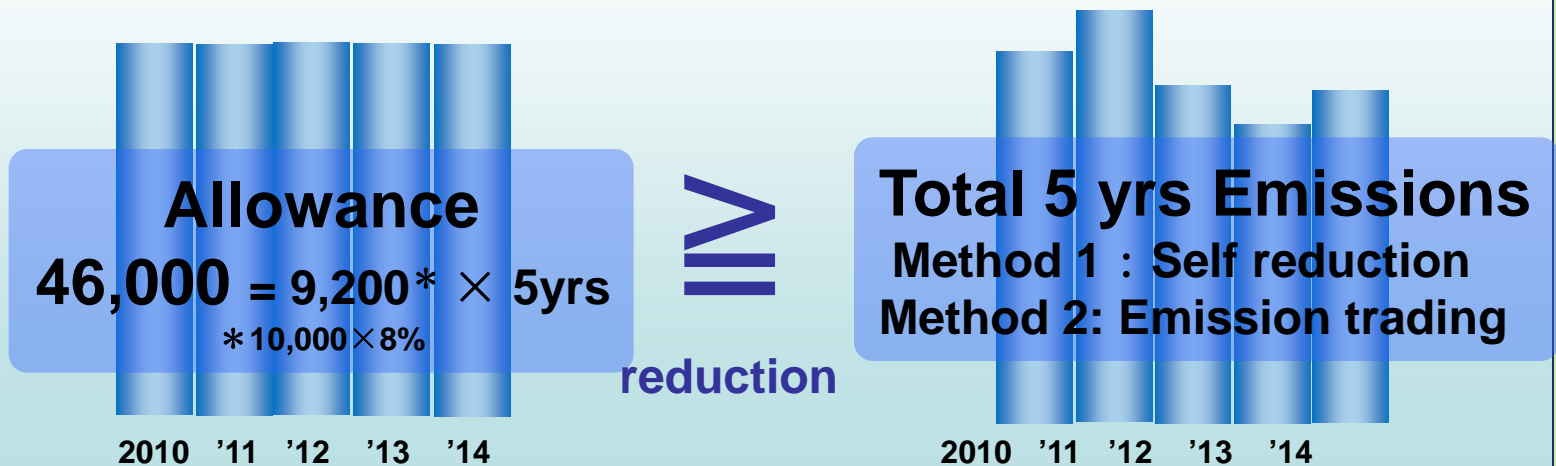
* Current estimation. Fix by the end of the 1st compliance period

Tokyo Cap-and-Trade : Allowance Allocation

Based on historic emissions

Base-yr emission \times (1-Compliance factor) \times 5yrs

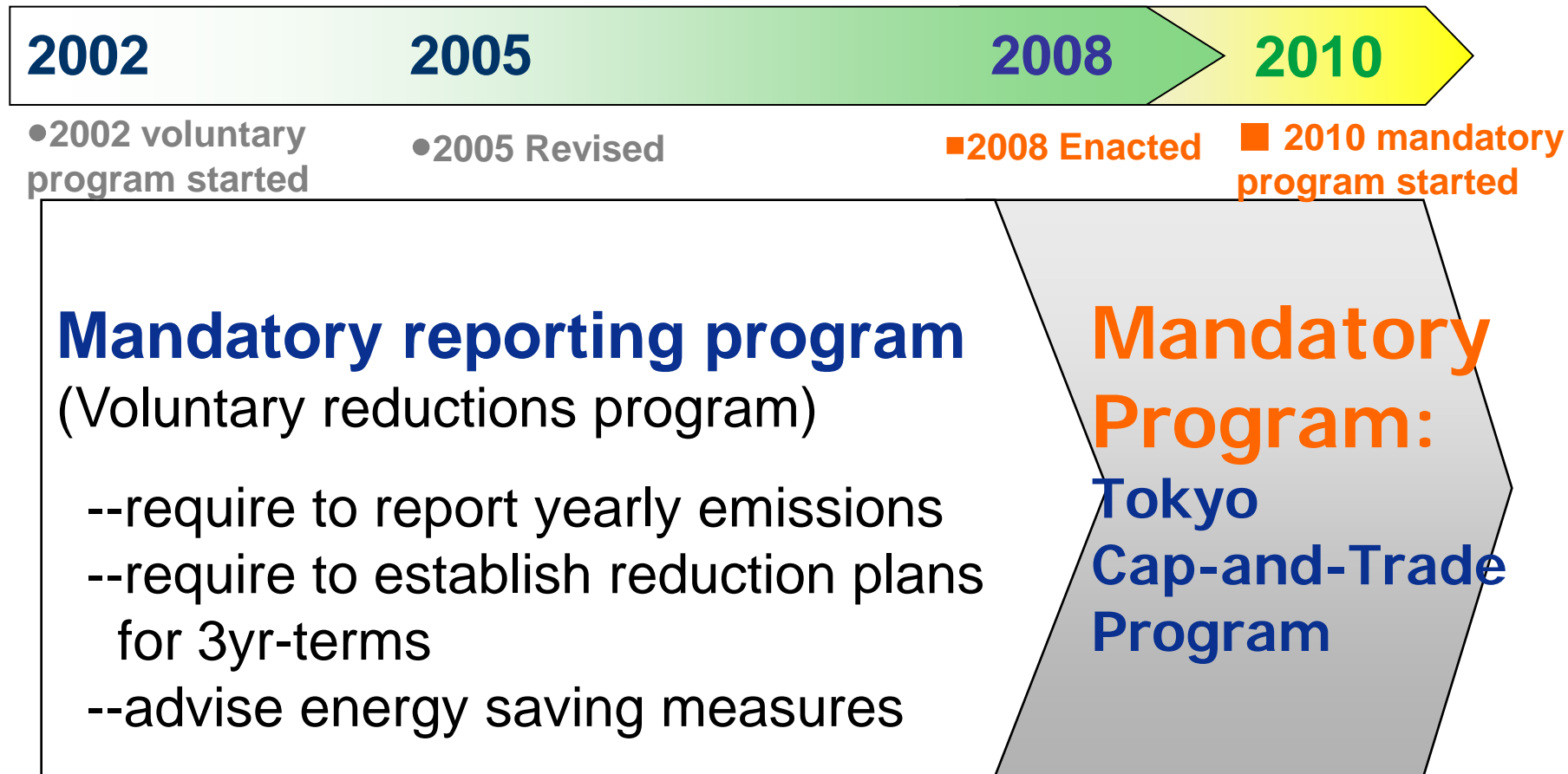
- Example**
- Base year emissions: 10,000 tons
 - Compliance factor for 1st compliance period: 8% reduction



Penalty for non-compliance

- ◆ Ordered to reduce 1.3 times the shortfall
- ◆ If order is violated:
Monetary fine, surcharge, public announcement, etc.

Tokyo Cap-and-Trade : Program Development



Tokyo Cap-and-Trade : Trading & Credits

Emissions trading	Trading Amount: Reduction exceeding the obligation Emission reduction exceeding the yearly obligation is allowed to be traded from the 2nd year.
Offsets --Credits	<ol style="list-style-type: none">1. Emission reductions from small and midsize facilities within the Tokyo area<ul style="list-style-type: none">* Emission reduction by energy-saving measures2. Renewable Energy Certificates<ul style="list-style-type: none">* Solar (heat and light) energy, wind energy, etc.in Japan3. Emission reductions outside the Tokyo area<ul style="list-style-type: none">* Sellers will be assumed to be covered under the Tokyo Cap-and-Trade Program, and reduction exceeding the reduction obligation would be counted as offset credit* Can only buy up to 1/3 of the reduction obligation

Key Points

- **Urban cap and trade program is as extremely effective** to lower CO₂ emissions from new and existing buildings in cities
- **Trading** is crucial for an entire scheme
- **Careful design of a local carbon market** is important to facilitate retrofit programs in Tokyo

Key barriers and challenges

- **Failure story** in 2005
 - Tried introducing mandatory emission reductions program without trading
 - lack of sufficient data
 - lack of knowledge (esp.building side)
 - insufficient communications with stakeholders,
- Lack of support from national level policy

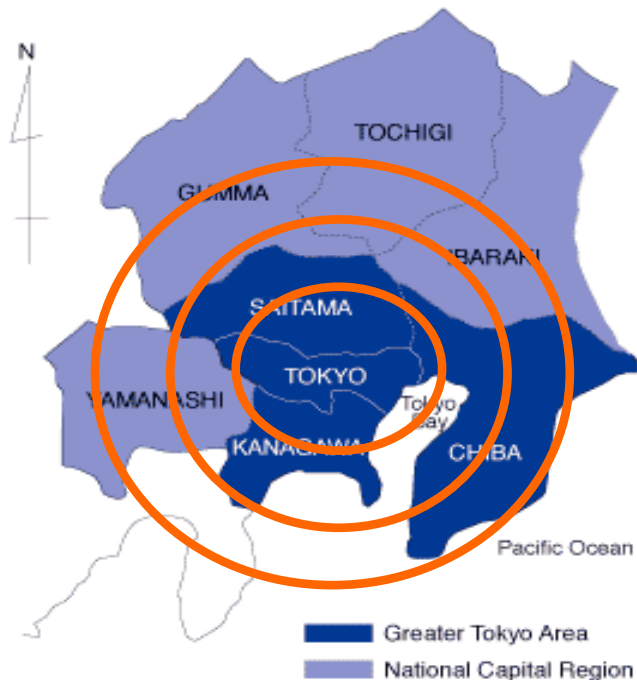
Expansion

- **Tokyo's Proposal on Nationwide Introduction of cap and trade program (Sept.2009)**
 - Two-tier (national level and regional level) cap and trade programs covers entire Japan
 - National level C&T covers super-large-scale energy and resource supply facilities, such as power plants and steel plants
 - Regional level (prefectures/cities) C&T covers buildings and other large facilities
- **Expansion of the Tokyo Cap and Trade program to Greater Tokyo Region**

Expansion of the Tokyo Cap-and-Trade

Greater Tokyo Region

Regional Economy:
1.5 trillion USD



Tokyo Climate Change Strategy



[http://www.kankyo.metro.tokyo.jp/
kouhou/english/index.html](http://www.kankyo.metro.tokyo.jp/kouhou/english/index.html)

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