Tokyo Cap and Trade Program

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Strategic Reporting Requirements

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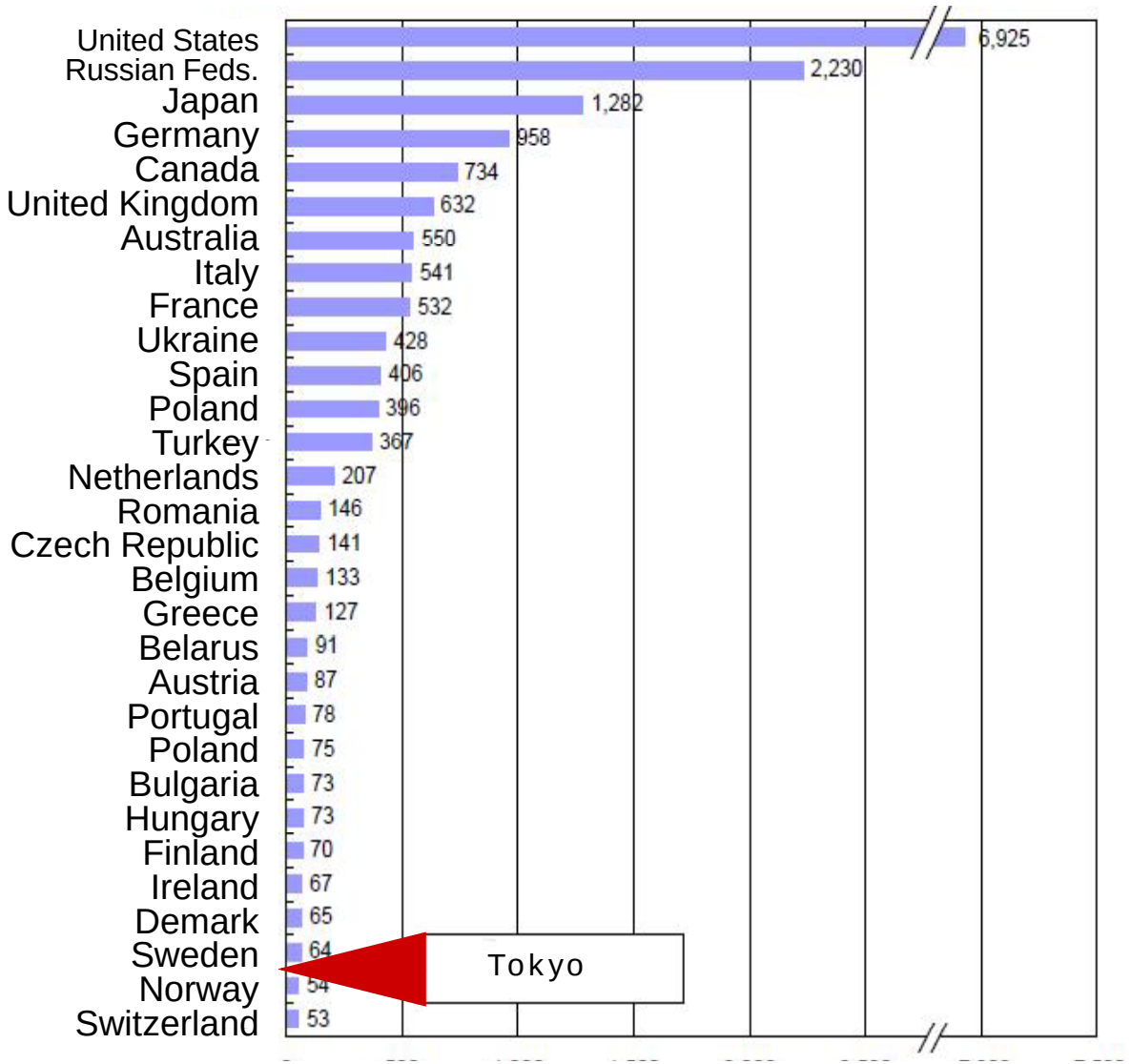
TOKYO
METROPOLITAN
GOVERNMENT

1. Tokyo's Green Building Policy

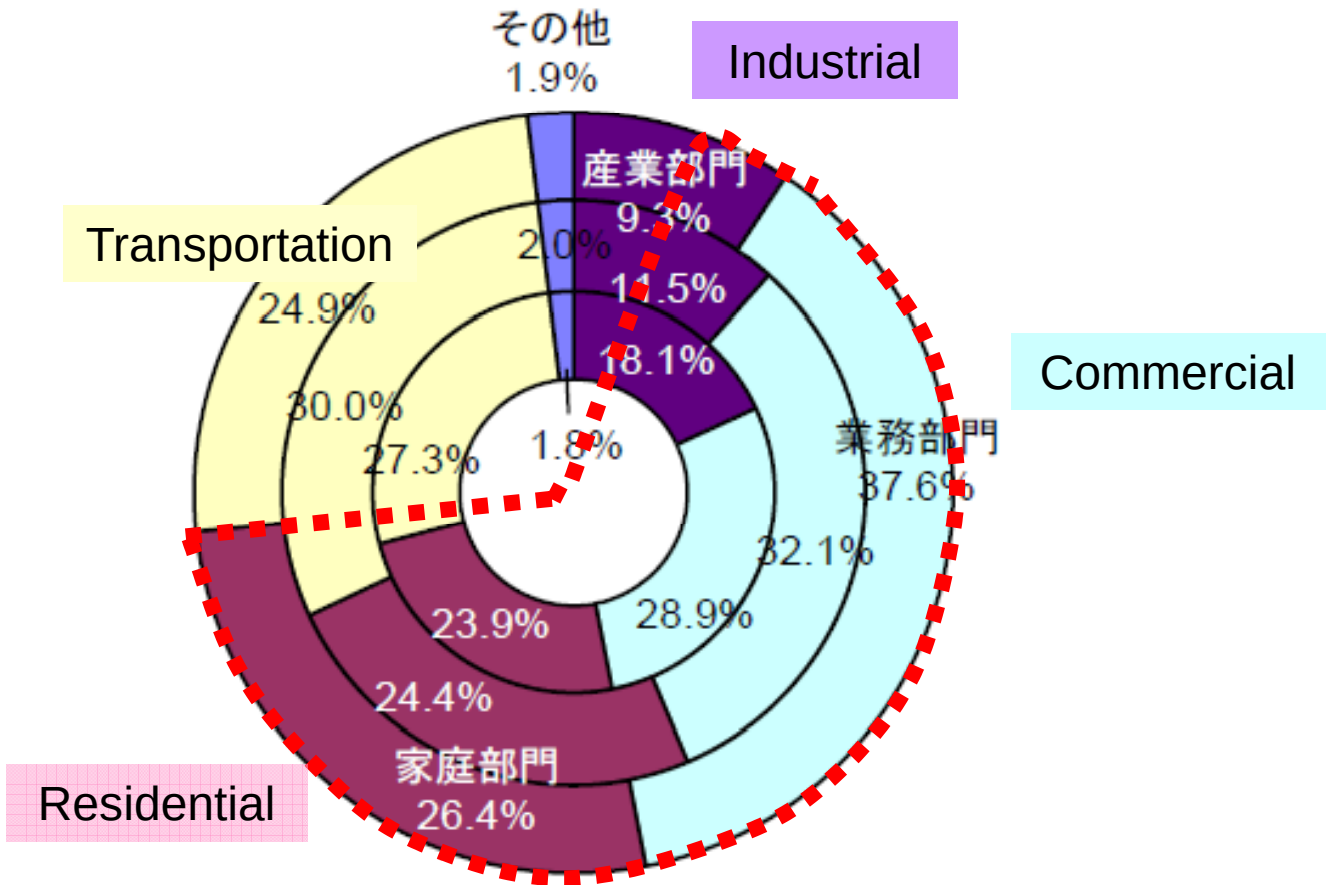
GHG Emissions in TMG area

63 million tons CO_2 eq (08 fiscal yr.)



Source: UNFCCC, GHG emissions of AnnexI parties

Increasing Carbon Emissions from the Buildings Sector



CO_2 emissions in TMG area by sector
Inner circle: 1990
Middle circle: 2000
Outer circle: 2007

Tokyo Climate Change Strategy Basic Policy

1 Responsibility as the enormous energy consumer

Annual emissions in Tokyo area is large, it's comparable to those from Scandinavian countries.

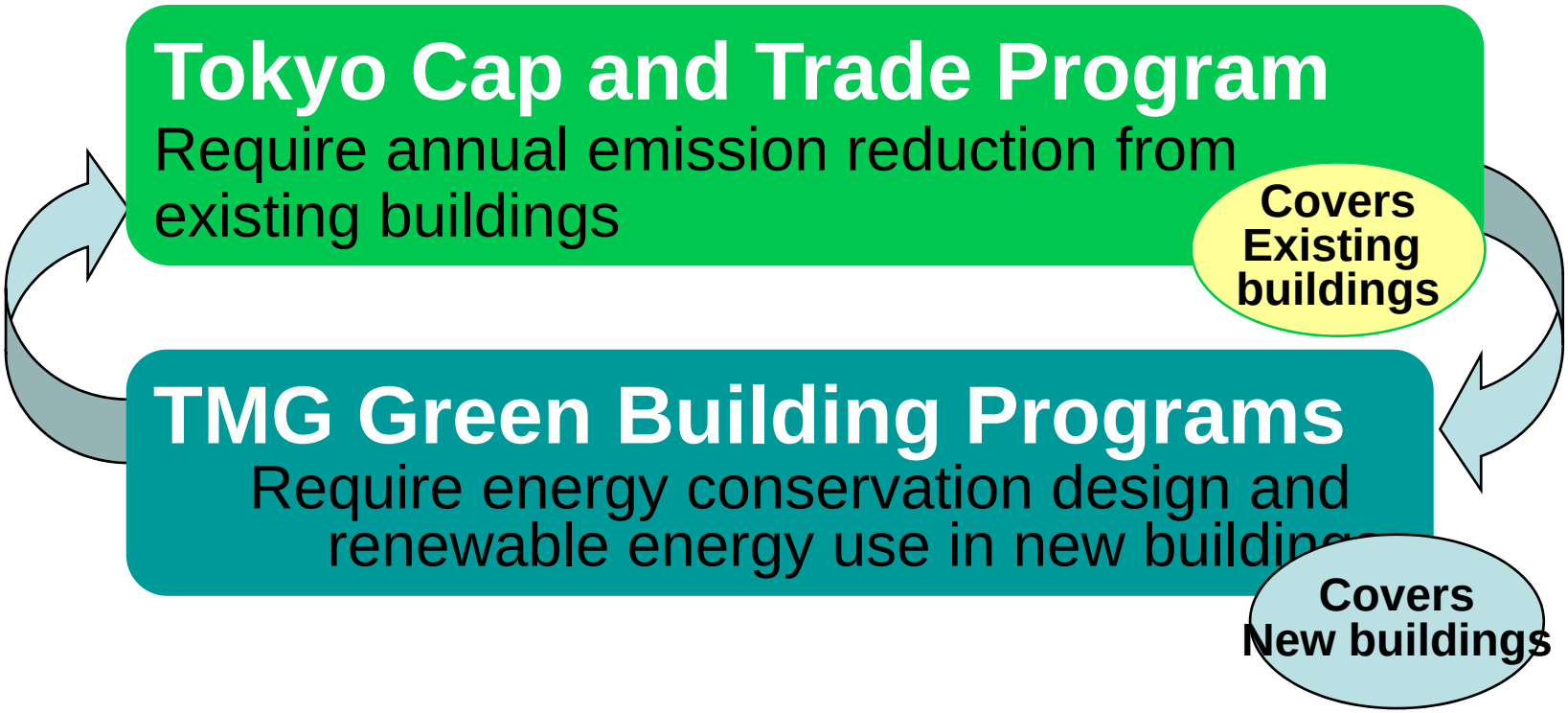
2 Importance to reduce emissions from urban buildings

Promoting measures in the buildings sector is the key to reduce emissions not only in Japan, but also in the urbanizing world

3 Enable Tokyo to grow in the coming carbon restrain age

Taking an advantage of the early shift to a low carbon city to realize sustainable growth of Tokyo

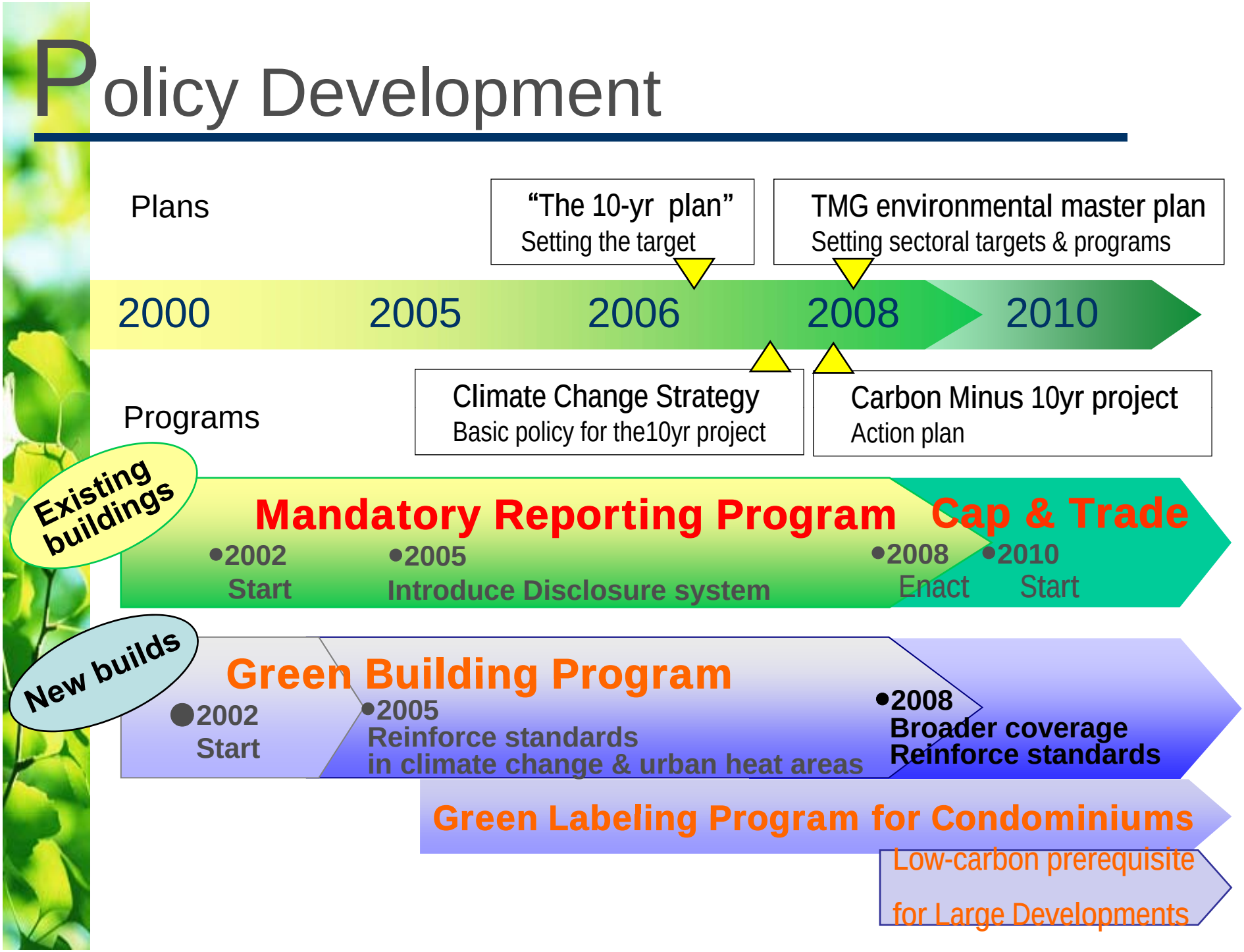
Framework of Measures for the Buildings Sector



Introducing energy efficient measures in new buildings design
- ▶ Easier emission reductions in the Cap&Trade

Investing in energy efficient measures in new buildings
- ◀ Because of the future reduction obligations by Cap&Trade

Policy Development



2. Tokyo Cap and Trade Program
Program Outline & its Features

Tokyo Cap & Trade Program

Unique coverage of urban facilities

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

Target facilities: 1,300 facilities

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

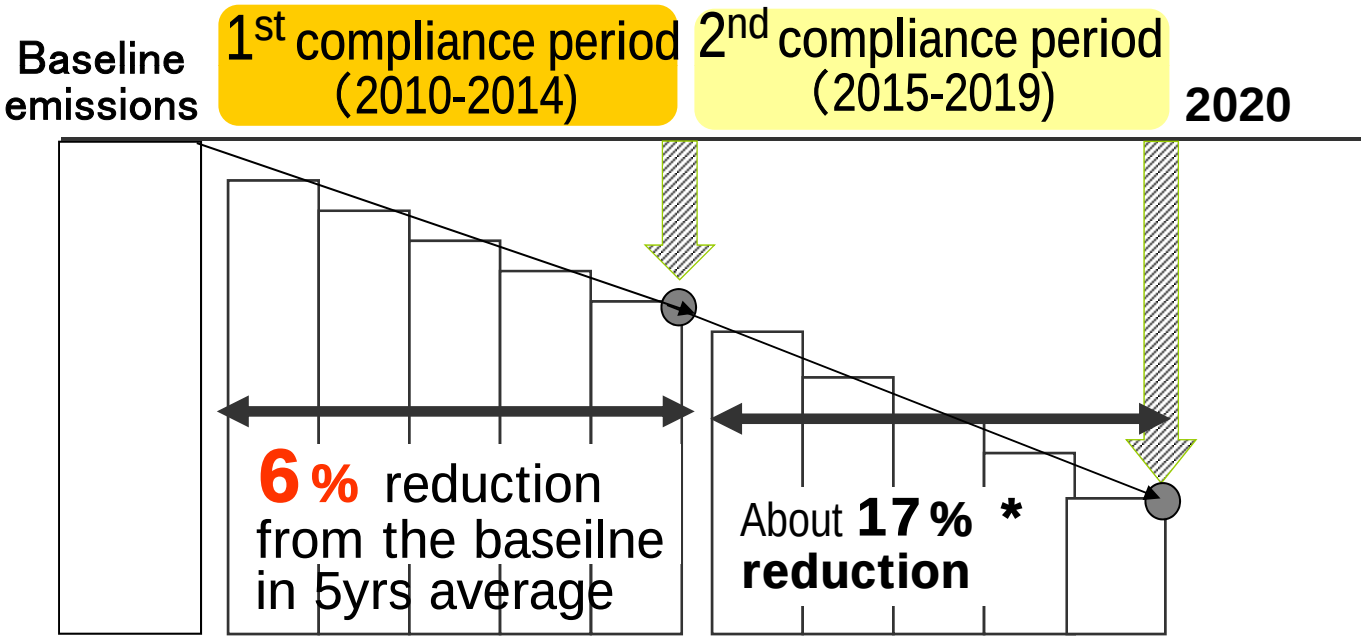
Approx. 1000 commercial & institutional buildings
Approx. 300 industrial facilities

Covers approx.40% of commercial & industrial sectors' emissions

Tokyo Cap & Trade Program

Strict Cap Setting to Achieve the TMG Target

To achieve the Tokyo's emission reduction target "By 2020 25% reduction from 2000", the necessary reduction in industry & commercial sector is 17% reduction



* Current estimation.
The Cap for the 2nd compliance period will be fixed by the end of the 1st compliance period

Tokyo Cap & Trade Program

Fair allowance allocations

Emission Allowance (5yrs) = (Base-year emissions − Obligation reductions) × 5 years

Obligation reductions = Base-year emissions × Compliance factor

Base-year emissions : Average emissions of three consecutive years between 2002 to 2007

Category		Compliance factor
Ⅰ-1	**Commercial buildings, District cooling & heating facilities (plants)**	8%
Ⅰ-2	**Commercial buildings using EHC**	6%
Ⅱ	**Factories, etc.**	6%
Top level	A facility already achieved high energy efficiency is certified as a: **Top Level / Near-top level Facility**	**1/2 or 3/4 of the compliance factor**

Tokyo Cap & Trade Program

Emission Trading: Creating a New Carbon Market

Tradable allowance:

Reductions exceeding the obligation

Creation of Emission Reduction Registry System:

Reductions exceeding

Creation of a MRV system:

Guidelines on MRV
Requirements of verification by a registered verification agency

Tokyo Cap & Trade Program

Emission Trading: Offset Credits

1. **Emission reductions from small and midsize facilities within the Tokyo area**
   * Emission reductions through energy-saving measures in smaller facilities not covered by the TC&T
2. **Renewable Energy Certificates**
   * Solar energy (heat and power), wind energy, etc.
   * No limit for offsetting
3. **Emission reductions outside the Tokyo area**
   * 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 base year emissions

Tokyo Cap & Trade Program

Penalties for non-compliance

Fines: up to JPY500,000

Charges: 1.3 times the shortfall

Violation will be published

***Among the other TMG programs, exceptionally high charges**

Tokyo Cap & Trade Program

Overview

Mandatory emission reduction program targeting urban facilities in a cost effective way

+ Targeting BUILDINGS
+ Targeting existing buildings
+ Targeting total emissions from a building as a whole
+ Focusing on demand side energy consumption
+ Capturing real energy consumptions (emissions)
  > design performance
+ Creating vast investments on energy efficiency measures and renewable energy introductions
+ Pursuing the cost effectiveness through the ETS

3. Strategic Reporting System in the Tokyo Cap & Trade

Tokyo Cap & Trade Program

MRV in the Cap & Trading Program

Measuring, reporting & verification Requirements

Measurement & reporting system is the basic rule of the cap & trade program

MRV on baseline emissions

-Set the starting point

Yearly report on emissions

-Measuring and reporting on annual emissions
-Verification required
-Including “Reduction Plan”

Yearly report from large tenants

-“Reduction Plan” by tenants

MRV for emission trading system

-Credits creation and trading

Tokyo Cap & Trade Program

Strategic Reporting System in the Program

Reporting Requirement of "Reduction Plan"

-Not only monitor the emission amount
but also report the reduction plan with a targeting goal
-Disclosed on TMG website

Utilizing a reporting system to ensure/improve the program effectiveness

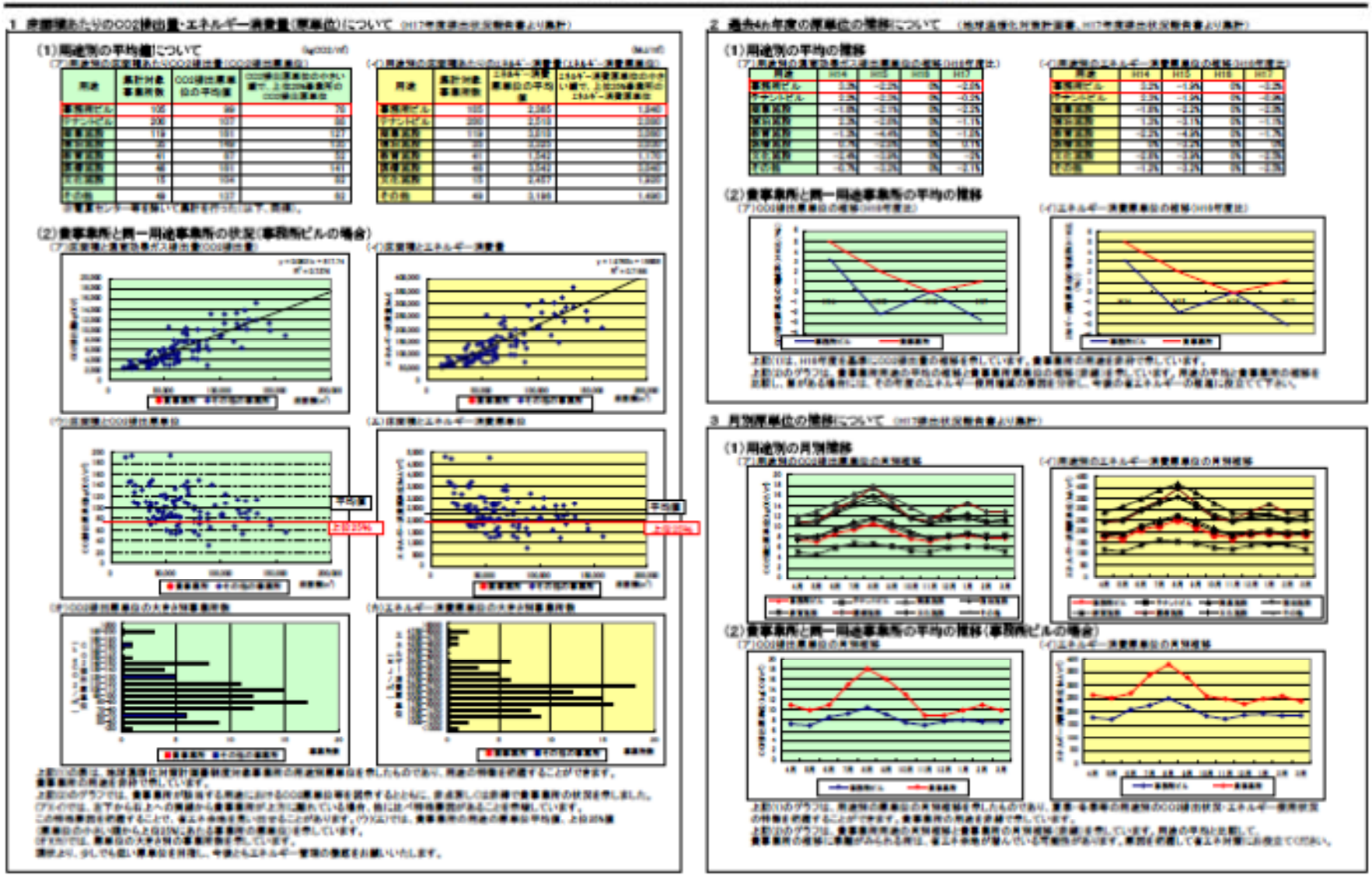
- **Mandatory reporting program** (2005-2010)
  - Reporting requirement on emission inventory with a reduction target & reduction plan
  - Feedback system to show their performance with comparable data & examples
  - Rating & disclosure of the plan and results

Energy Efficiency Carte

～自らのエネルギーの消費状況がひと目でわかる～

『東京都★省エネカルテ』

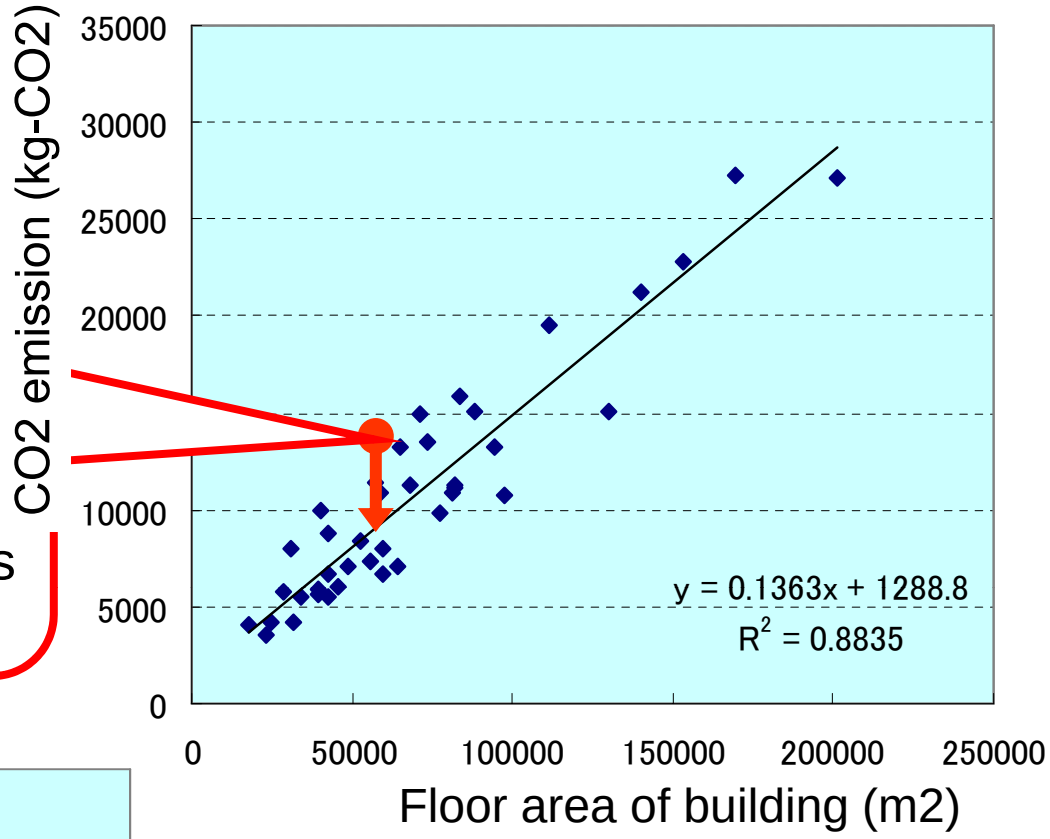
事業所名 ： Aビル

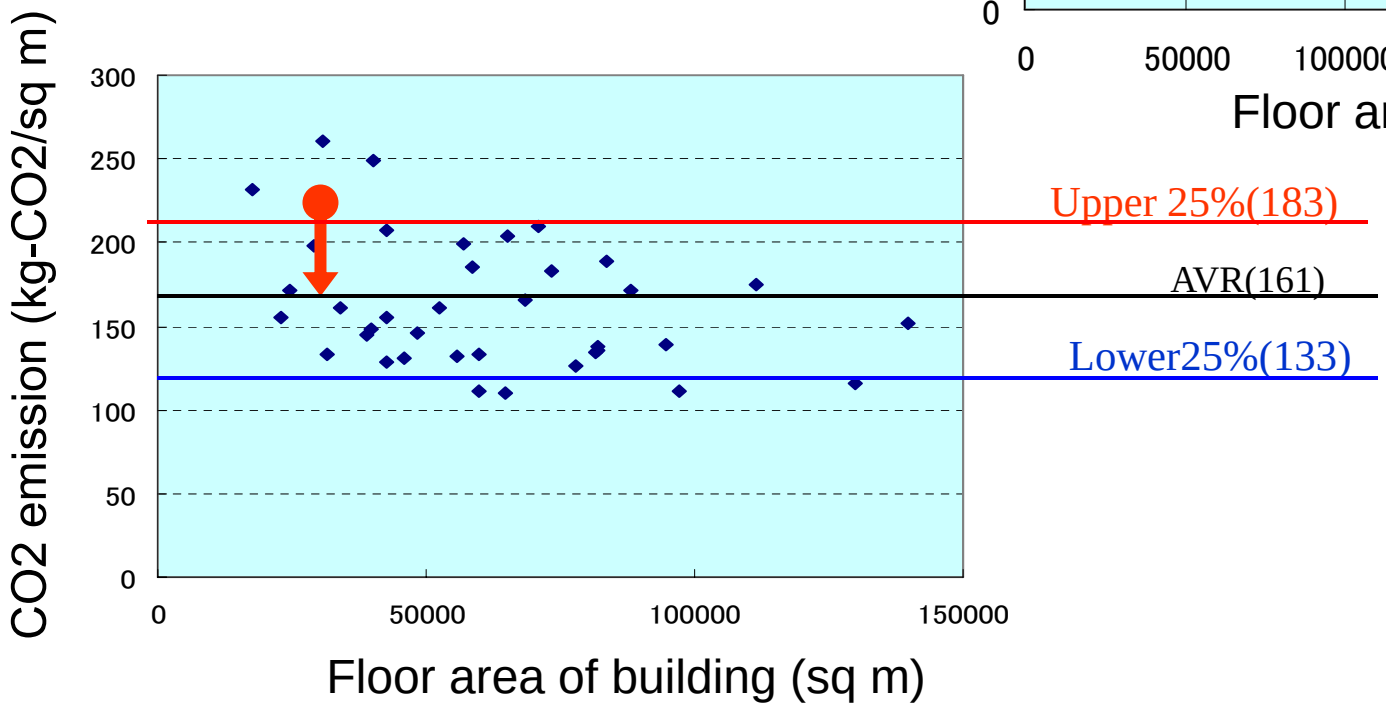


Feeding Back

*Distribution

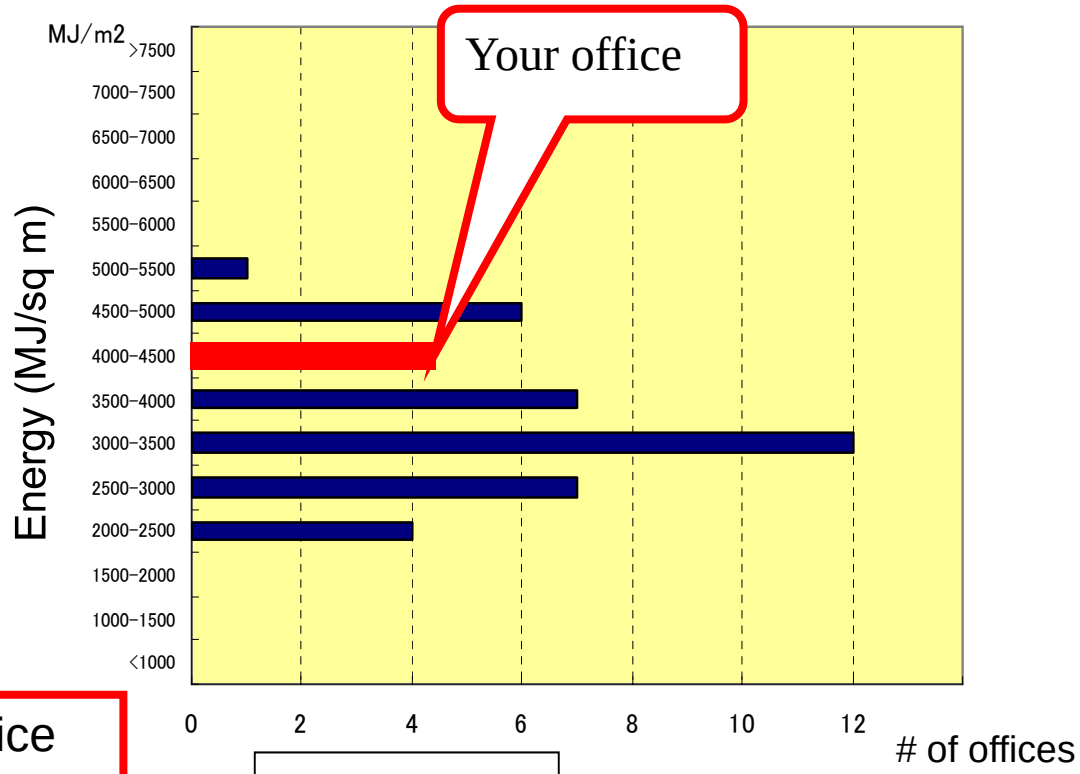
CO2 emission of your office is a little higher among those in the same business category
Check factors and seek measures for further reduction!



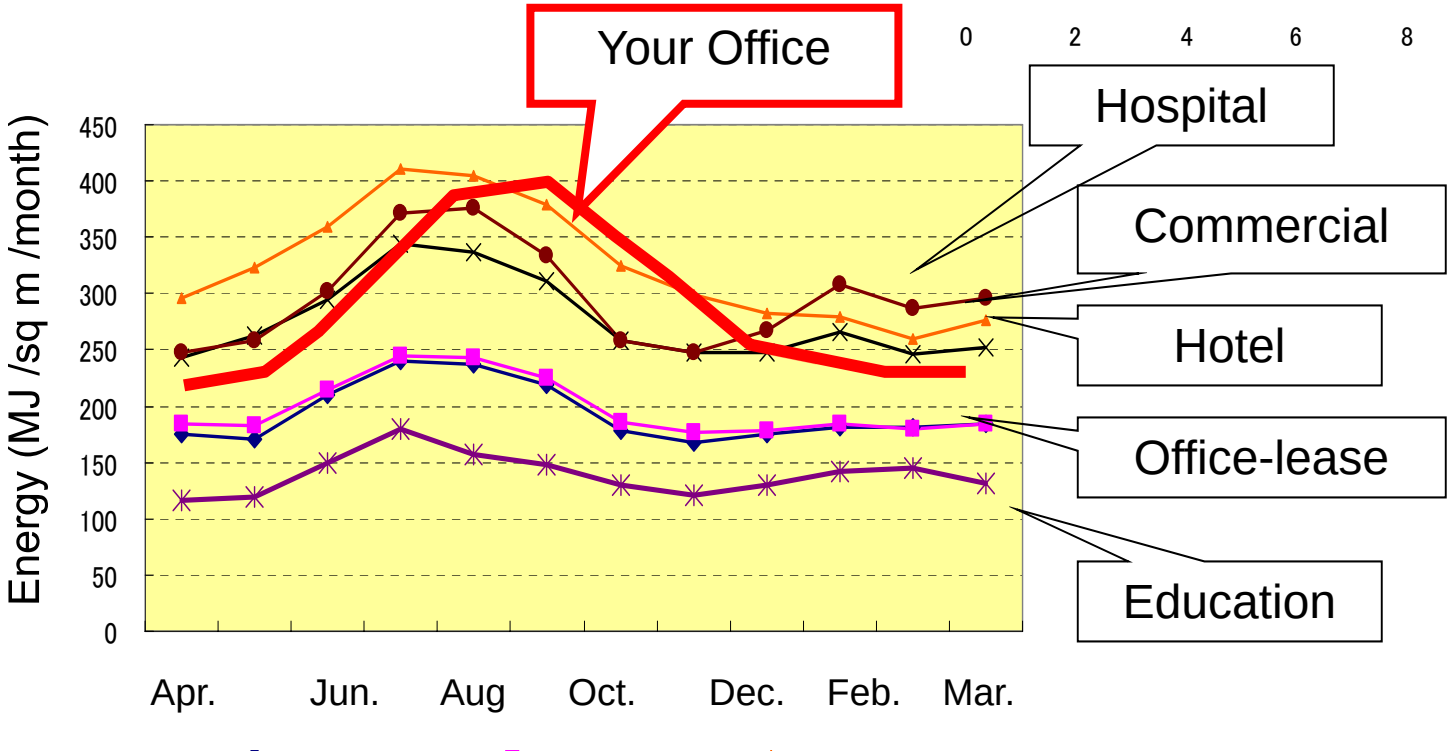


Feeding back

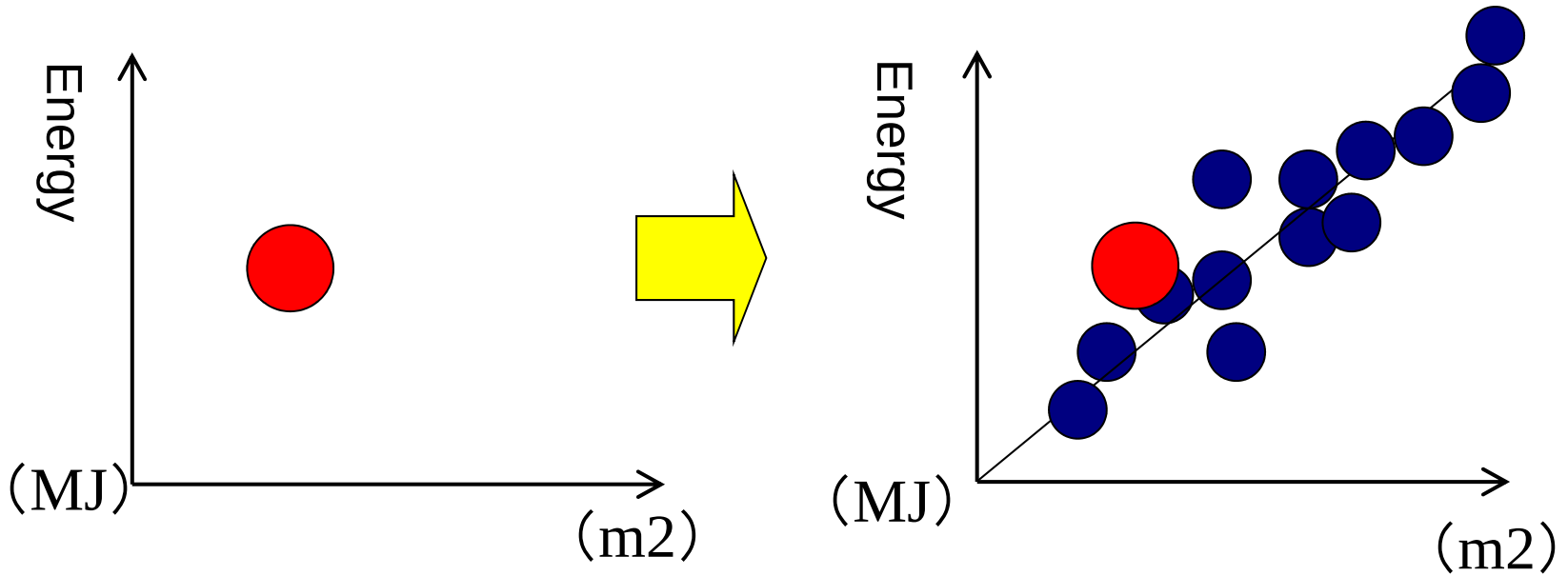
*Ranking



*Seasonal Change



◆Distribution



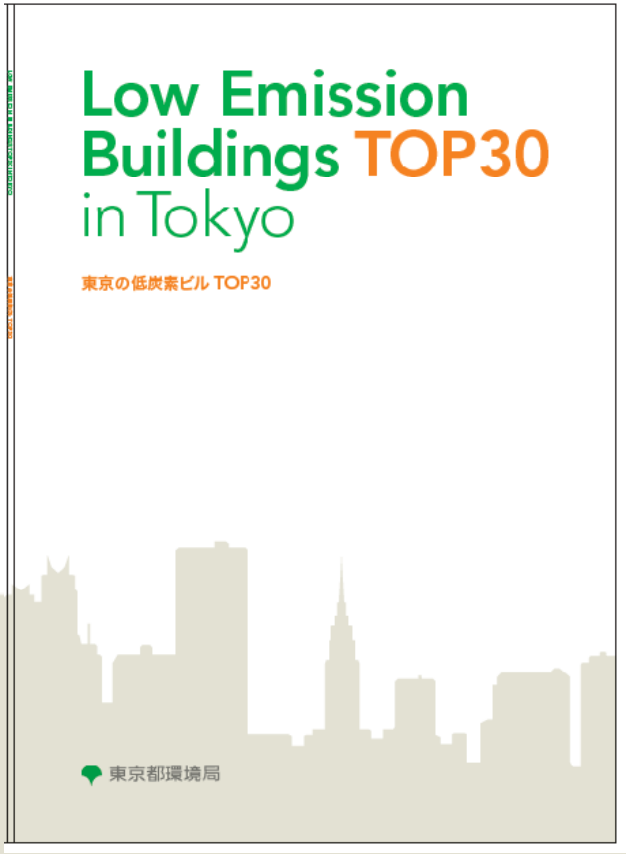
4. Green Buildings Era in Tokyo

Low Emission Buildings TOP30

TOP30 buildings were selected in line with the policy measures of TMG.

Existing buildings section:
Highly valued in the C&T Program

New building section:
Based on the evaluation of the Green Building Program



http://www.kankyo.metro.tokyo.jp/en/int/top30.html

TOP30 Building List

東京の低炭素ビルTOP30 所在地マップ

EXISTING BUILDING

1. Dentsu Shiodome Head Office Building
2. Ginza Mitsui Building
3. Hibiya International Building
4. Meiji Yasuda Seimei Building and Meiji Seimei Kan Building
5. Mitsubishi Shoji Building
6. Marunouchi Building
7. Nihonbashi Mitsui Tower
8. Otsuka Corporation Head Office Building
9. Roppongi Hills
10. Sapia Tower
11. Shin-Otemachi Building
12. Sony City
13. Tokyo Midtown
14. Toranomon Towers Office
15. Kokuryu Shiba Koen Building

Alphabetical order

NEW BUILDING

16. Chiyoda Ward Koujimachi Junior High School
17. Fujimi Mirai Kan
18. JP Tower (tentative name)
19. Kasumigaseki Common Gate Central Government Building No.7
20. Kyobashi 3-1 Project (tentative name)
21. Marunouchi 1-4 Project New Building (tentative name)
22. Marunouchi Park Building
23. Shimizu Corporation New Headquarters Construction Project
24. Shopping Center at 1-1 block in the first south area of Musashi-Koganei Station
25. Sony Corporation Sony City Osaki
26. Takenaka Corporation Tokyo Main Office
27. Tokyo Metropolitan Matsuzawa Hospital
28. Toyosu Cubic Garden
29. Obayashi Corporation Technical Research Institute Main Building (Tecno-Station)

Tokyo Climate Change Strategy

www.kankyo.metro.tokyo.jp/en/climate/

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