



Tokyo Cap-and-Trade Program

～ Efforts Toward a “Zero Emission Tokyo”～

- Contents**
- 1. Tokyo Figures and Climate Strategy**
 - 2. Outline of the Tokyo C&T Program**
 - 3. Results and Analysis**

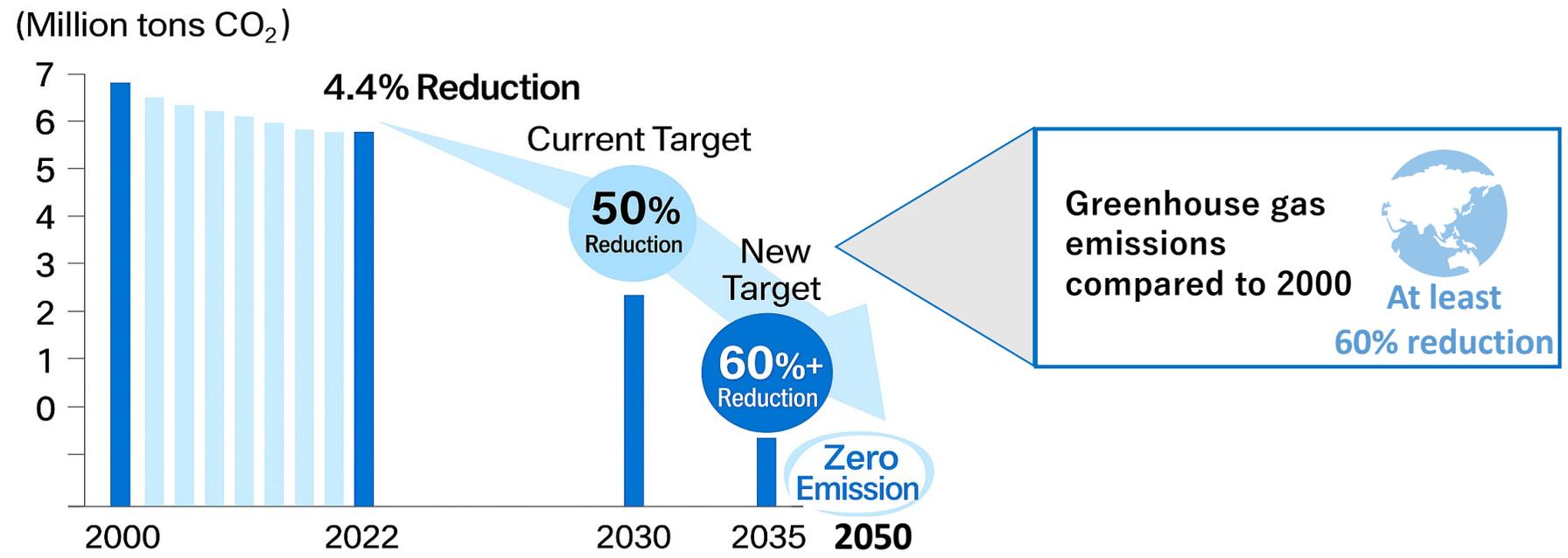
1 Zero Emission Tokyo Strategy – Beyond Carbon Half (Formulated in March 2025)

A New Milestone Toward 2035

- Reduce greenhouse gas emissions by **at least 60%** by 2035
- Accelerate emission reductions as a major consumer of energy and resources, aiming to meet a level* expected by the international community

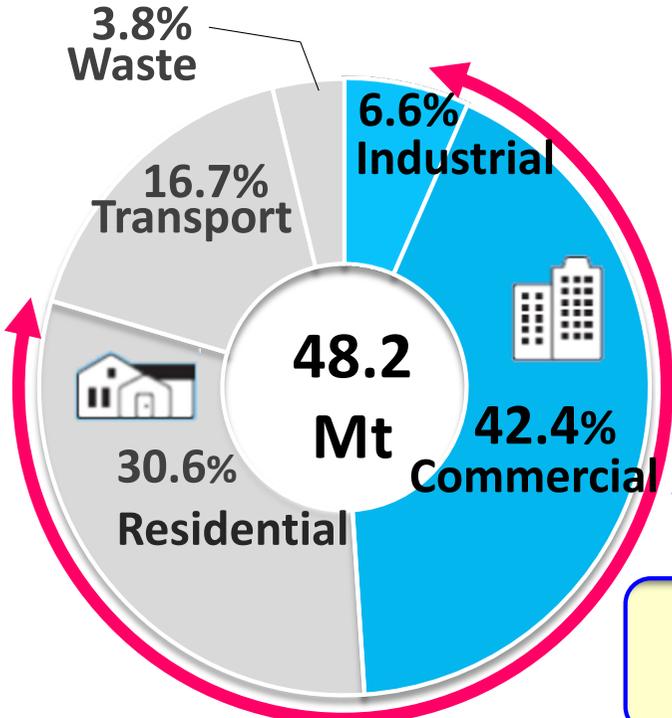


* Level aligned with the 1.5°C target required by IPCC (UN Intergovernmental Panel on Climate Change)

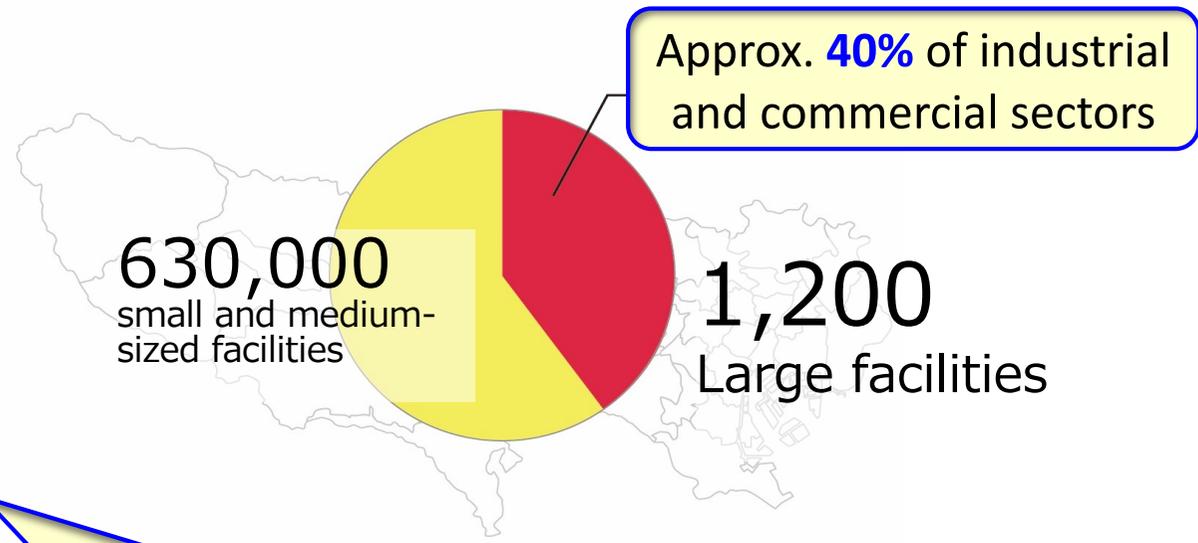


1 2 Why focus on large buildings?

CO₂ emissions in Tokyo
(FY 2023 Preliminary)



Share of CO₂ emissions from industrial and commercial sectors in Tokyo



Buildings account for more than 70% of emissions

2 1 Development of the Tokyo Cap-and-Trade Program

- Started from a mandatory reporting program in 2002, without mandatory reductions
- Based on the accumulated data, introduced mandatory reduction program in 2010

**The world's first urban cap-and-trade program
for large-scale facilities** (buildings/factories)

Threshold : annual energy consumption of

1,500 kl* or more (crude oil equivalent)

*2,000~3,000t-CO₂ (approximately 6.7 million kWh of electricity consumption)

➔ Approximately **1,200 facilities** are covered in total

- Office / Commercial buildings : 1,000
- Factories, Water supply/sewage facilities : 200

2 Implementation Process

★Adoption of The Kyoto Protocol in 1997

★Issuance of Tokyo Metropolitan Environmental Security Ordinance in 2000

★Formulation of Tokyo Climate Change Strategy in 2007

★Enforcement of Tokyo Metropolitan Environmental Security Ordinance in 2009

2002 - 2005

HOP

Started Annual Reporting Program

2005 - 2009

STEP

Added Evaluation & Disclosure Mechanism

2010 and beyond

JUMP

Introduced Cap & Trade Program

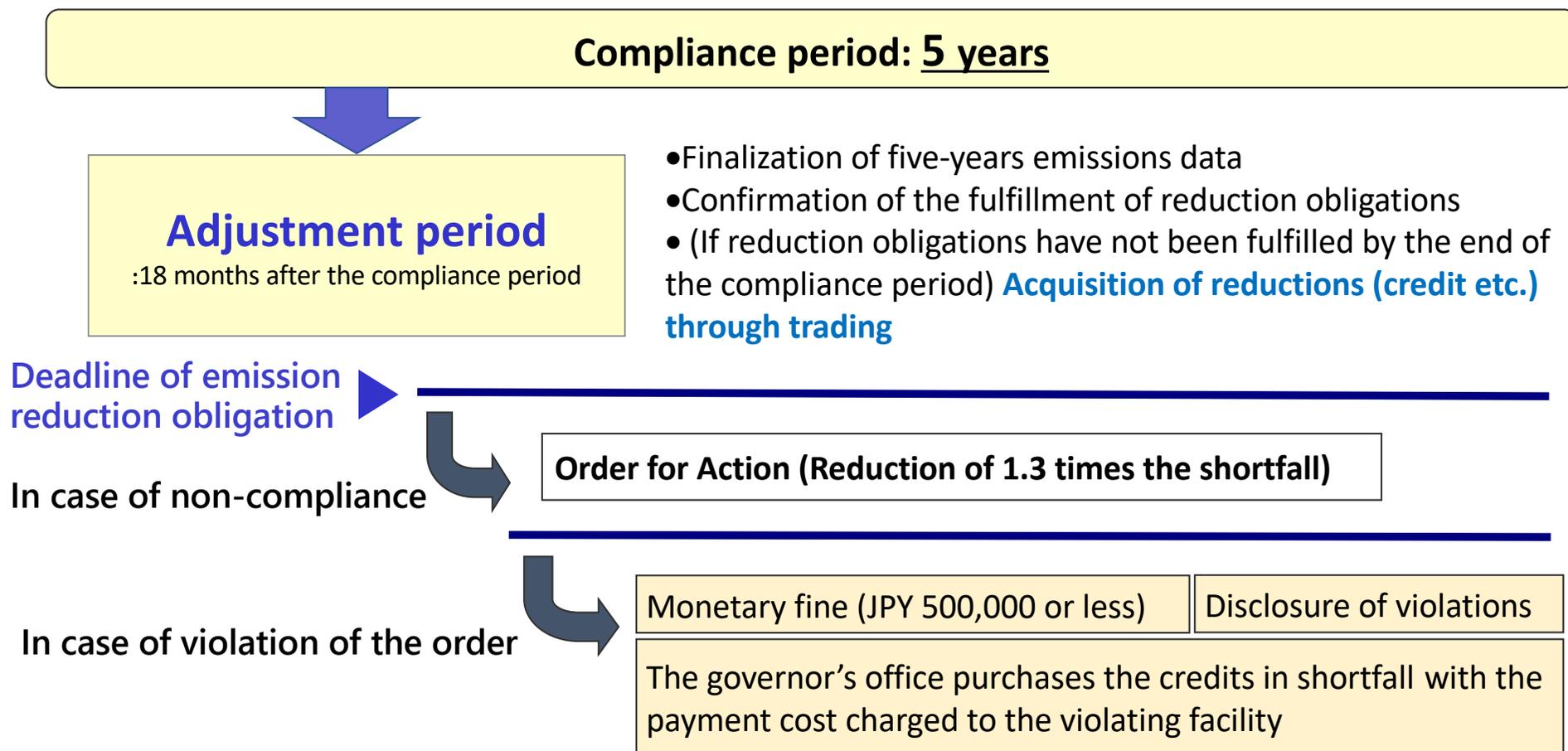
Scheme	Reporting Only	Reporting + Evaluation & Disclosure Mechanism	Reporting + Evaluation & Disclosure Mechanism + Trading
Obligation	Voluntary Reductions	Voluntary Reductions	Mandatory
Disclosure	Facility's Self-Disclosure	Facility + TMG's Website	Facility + TMG's Website
Involvement	Facility Management Staff	Facility Manager	Top Management

Continued Data Accumulation

2 3 Outline of the Program

Covered facilities	Approx. 1,200 facilities which annually use 1,500 kL or more of energy equivalent to crude oil		
Base-year Emissions	Calculated based on the average of emissions of selected 3 consecutive fiscal years *Newly covered facilities can also choose method based on emission intensity standards		
Compliance Period & Factors		Office buildings, etc.	Factories, etc.
	1 st period (FY2010 to FY2014) :	8%	6%
	2 nd period (FY2015 to FY2019) :	17%	15%
	3 rd period (FY2020 to FY2024) :	27%	25%
	4 th period (FY2025 to FY2029) :	50%	48%
Allocation	Free Allocation		
Verification	Mandate verification of GHG emissions by a certified third-party institution		
Enforcement	<ul style="list-style-type: none"> • (In case of non-compliance) Order for Action: Reduction of 1.3 times the shortfall • (When violating the order) Fines, disclosure of violation, the governor procures the shortfall and charges the cost. 		

2 4 Ensuring the Effectiveness of the Program



2 5 Enhancing Tokyo's Cap-and-Trade Program

Advancing toward *Carbon Half by 2030* and *Zero Emission Tokyo by 2050*,

Accelerating Energy Efficiency and Expanding Renewable Energy Adoption

Regulatory Amendments (October 2023)

Key Enhancements	3rd Compliance Period	4th Compliance Period
Reduction Obligation Rate	27% or 25%	Ambitiously aligned with 2030 targets: 50% or 48%
Emission Factors for Electricity & Heat	Fixed Emission Factors (Electricity: 0.489 t-CO ₂ /1,000 kWh Heat: 0.060 t-CO ₂ /GJ)	Actual Emission Factors , reflecting the carbon intensity of electricity/heat supplied
Expansion of Renewable Energy Use	Zero emissions for on-site renewable energy generation when self-consumed —	Zero emissions additionally applied to renewable energy procured off-site (e.g., off-site PPAs) CO ₂ reduction effects of renewable energy certificates reflected in annual emissions
Top-Level Facility Certification	Two tiers : Top-Level and Semi Top-Level, Evaluated mainly on energy-saving measures	Enhanced to three tiers , recognizing excellence In both energy efficiency and zero-emission initiatives, including renewable energy
Expansion of Disclosure Items	Public disclosure of facility-level GHG reduction performance	Broader transparency, including primary energy intensity and renewable energy use , presented with clear visual comparisons and map across areas

2 6 Incentive Scheme ① Top-Level Facilities

TMG certifies facilities that have taken outstanding energy saving efforts and renewable energy initiatives as **“Top Level” facilities** at 3 levels
62 facilities in total = 5% of the covered facilities (As of FY2024)



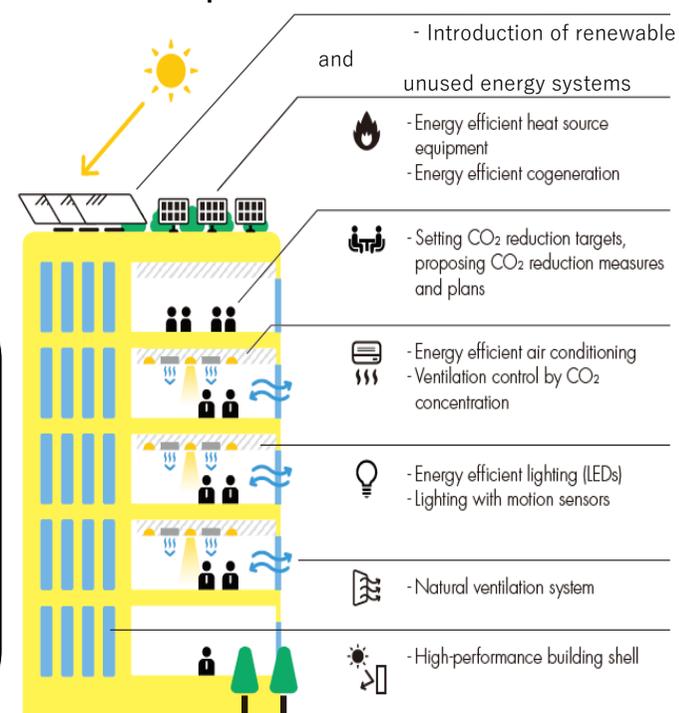
- **Remove the upper limit on excess emission reduction**
(From FY2025)

Benefits and Effects of the Certification

- ✓ Branding of certification
- ✓ Used as **global ESG benchmark for real assets**
- ✓ Certification guideline is used as **reference by developers** at the planning phase of construction



Examples of energy saving and renewable energy initiatives at Top-level facilities



2 7 Incentive Scheme ② Cooperation between Owners and Tenants

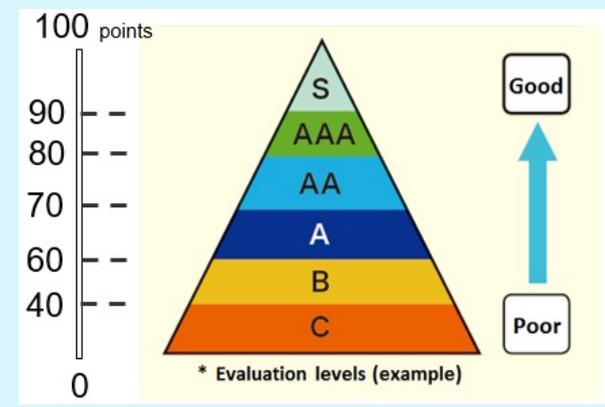
- Approx. **60%** of energy consumption of buildings is from tenants
- For owners, tenants are often their “clients”
 - Request to take energy-saving measures may be systematically difficult



Tenants must cooperate with building owners for fulfillment of reduction obligations

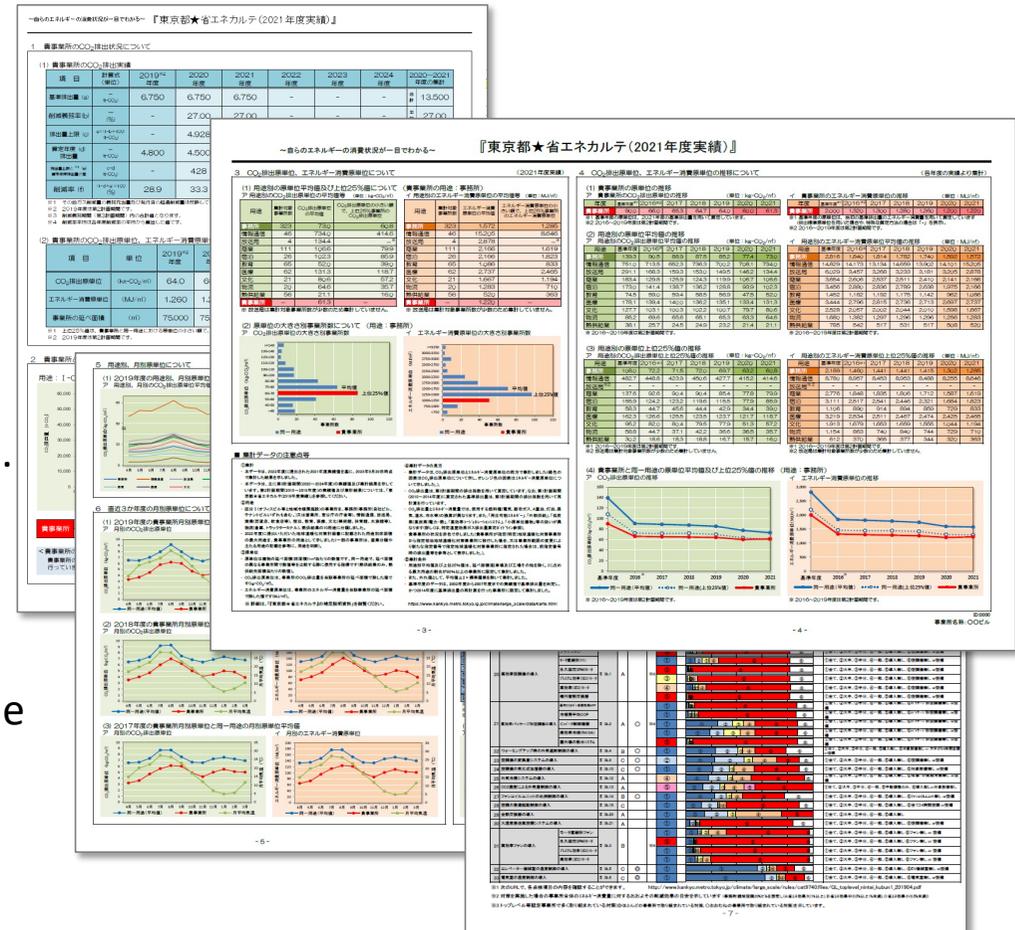
- ✓ Mandate for all tenants to cooperate with building owners
- ✓ “Large-sized tenants” must submit GHG Emissions Reduction Plan to TMG via building owners
- ✓ Implement measures based on the plan

➔ **TMG evaluates & disclose excellent tenants on the website**



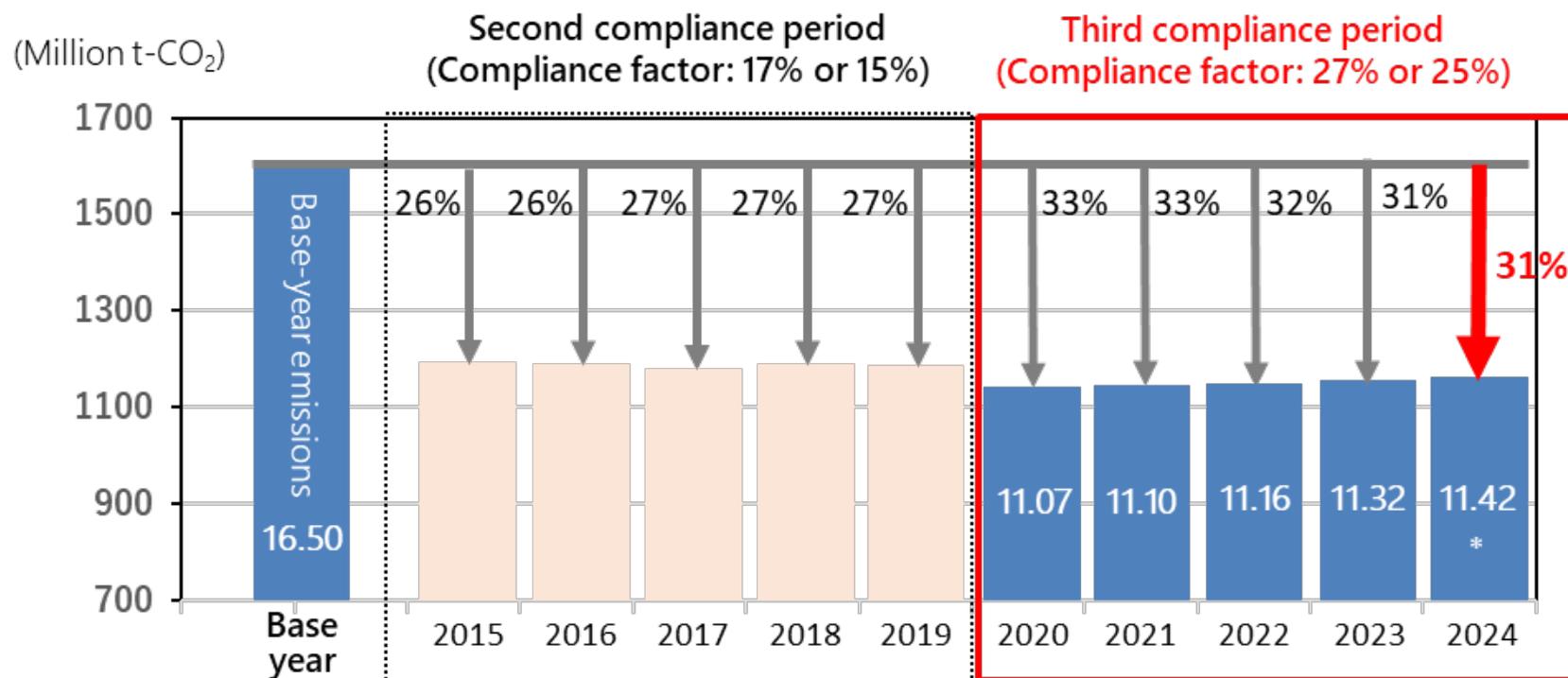
3 1 Analysis and feedback of efforts : "Energy Saving Chart"

- TMG analyzes and calculates data from GHG Emissions Reduction Plans and Checklists submitted by covered facilities
- Annual "Energy Saving Chart" includes:
 - CO2 emissions,
 - energy consumption intensity
 - the progress of energy saving measures etc.
- ➔ Providing feedback to the covered facilities
- This chart can be used for comparison with the status of initiatives at other facilities in the same use or industry
- ➔ Promoting more reduction measures



3 2 Reductions Achieved by Covered Facilities

- All covered facilities have fulfilled their obligation so far
- 31% reduction from base-year-emissions (FY2024)

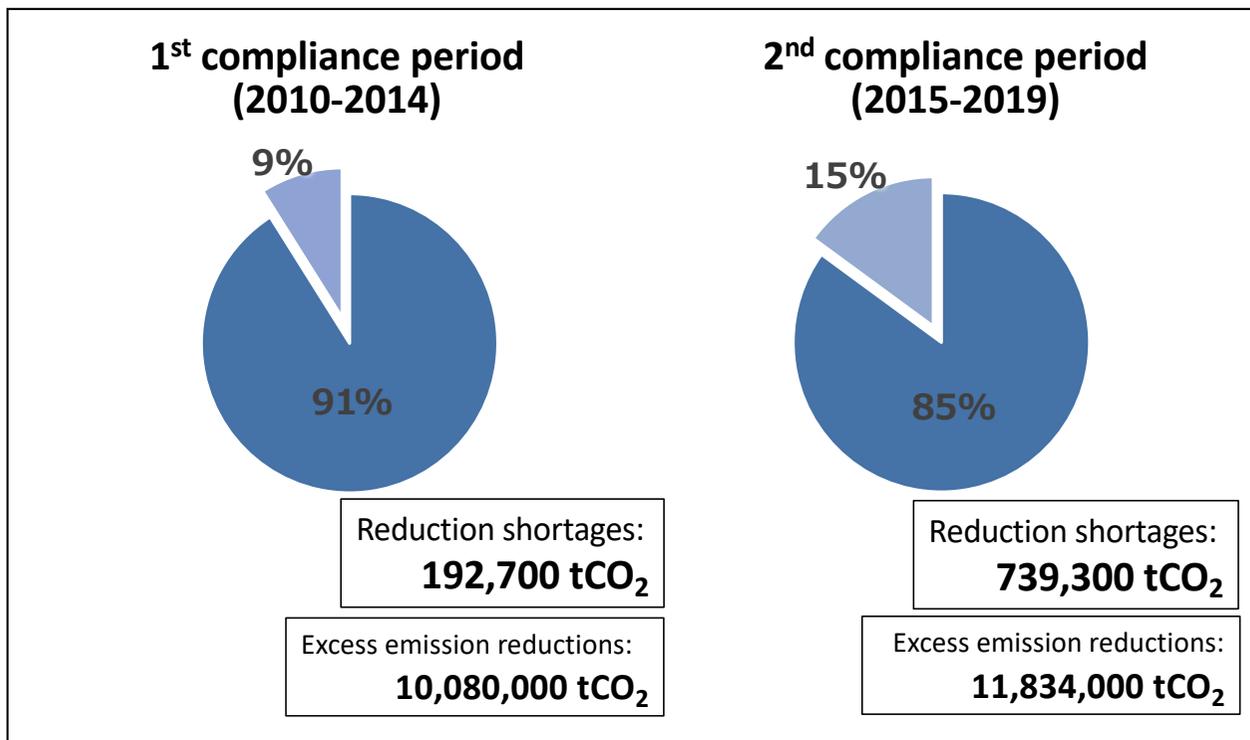


* Aggregated value as of February 10, 2026 resulting from emission factors for electricity etc. in the third compliance period.

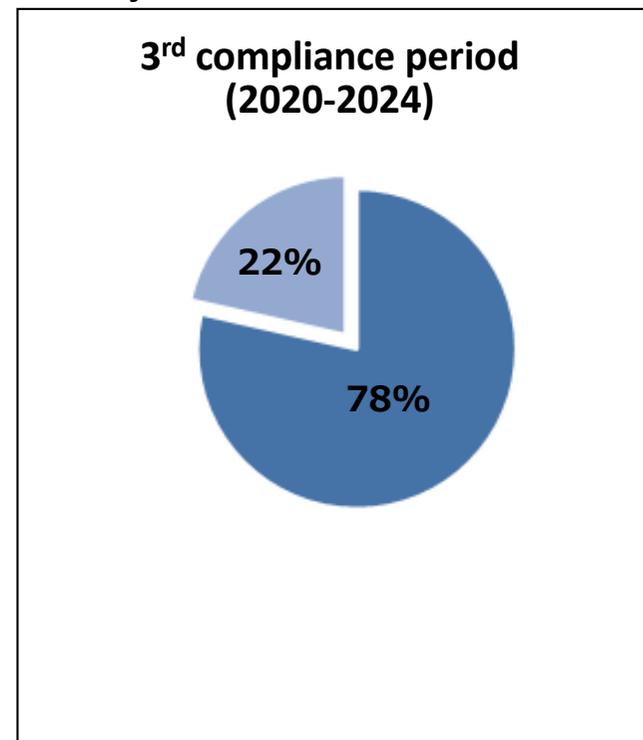
3 Reduction Obligation Achievement Status

- Many covered facilities have fulfilled their reduction obligation through their own measures
- In the 3rd compliance period, approx. 80% facilities are likely to meet obligations on their own

◆ Result



◆ Projection



■ Use of credits etc. ■ Own reduction measures

3 4 Measures for Reduction

➤ Reduction measures indicated in GHG Emission Reduction Plans

Measures for heat sources, air conditioning, and lighting	FY2020 Quantity	FY2025 Quantity
Installation of high-efficiency lighting and energy saving control	1,932	2,829
Installation of high-efficiency equipment	1,246	1,574
Installation of systems for cooling using outside air	228	245
Installation of external air volume control based on CO2 concentration	114	120
Installation of building energy management systems	35	39
Total (above measures and others)	10,055	12,528

➤ Facilities selecting low-carbon electricity or heat

Categories	Certification requirements	Number of facilities	
		FY2020	FY2024
Low-Carbon Electricity	CO2 emission factor is less than 0.37 t-CO2/MWh (base emission factor or adjusted emission factor, whichever is lower).	19	135
Low-Carbon Heat	COP of heat is equal to or more than standards, and the CO2 emission factor is less than 0.060 t-CO2/GJ.	159	187

3 5 Carbon Market Development

1. Appraised Prices (As of Aug. 2025)

Type of Credits	Appraised prices
Excess Emission Reductions	JPY 170 ~ 1,000 / t-CO ₂
Renewable Energy Credits	JPY 4,100 ~ 8,200 / t-CO ₂

2. Credits Issued (As of Mar. 2025)

Approx. 23 million t-CO₂ (approx. 4,100 cases)

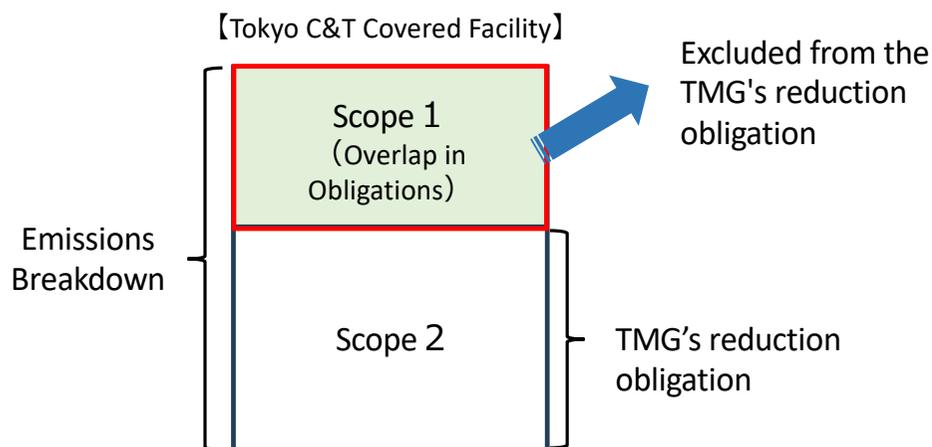
3. Transactions (As of Mar. 2025)

Approx. 2.4 million t-CO₂ (approx. 600 cases)

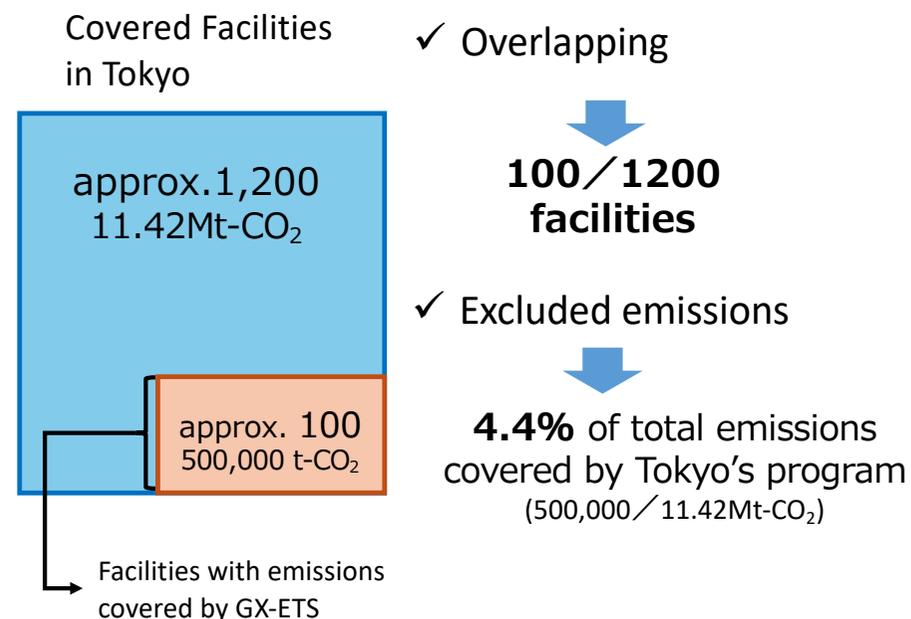
3 6 How to Coordinate with GX-ETS

➤ Approach

Exclude Scope 1 emissions of entities subject to the GX-ETS from the TMG's reduction obligations.



➤ Impact on the Tokyo C&T program



**Amendment of the TMG's Ordinance in Dec. 2025
(Effective April 1, 2026)**

**It is 'TIME TO ACT'.
Let's move forward together!**

Bureau of Environment, TMG



Tokyo Cap-and-Trade Program

