



Tokyo Cap-and-Trade

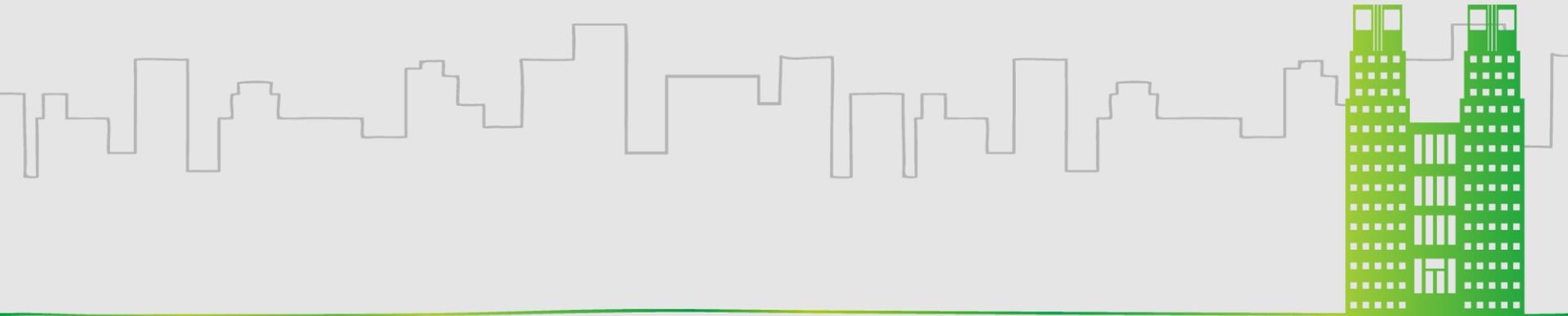
Driver for a Low Carbon City

Bureau of Environment Tokyo Metropolitan Government

1. Remarkable results!

2nd Year Report

Green Buildings Era in Tokyo



The results of the second year report 1

In total **23%** Reduction

from the base-year emissions

Cf. Their obligated reduction: 6 % or 8%

93% of the covered facilities
reduced more than the obligations



The results of the second year report 2

About **5,500** reduction measures in 5 years

826,700_{t-CO2}
will be reduced by these measures



Green Buildings Era in Tokyo

Low Emission Buildings TOP 30 in Tokyo



Sony City
Sony Corporation

Existing Buildings Section Retrofits



Roppongi Hills
Mori Building Co., Ltd.



Tokyo Midtown
Mitsui Fudosan Co., Ltd.
East Japan Railway Company
Mitsubishi Estate Co., Ltd.

1. Remarkable results!

Low Emission Buildings TOP 30 in Tokyo

New Building Section - Green Building Design



**New Headquarters
Construction Project**
Shimizu Corporation

Techno-Station
Obayashi Corporation



Marunouchi Park Building
Mitsubishi Estate Co., Ltd.



JP Tower
Japan Post Network Co., Ltd.
East Japan Railway Company
Mitsubishi Estate Co., Ltd.

1. Remarkable results!

Tokyo Cap-and-Trade 🌿 1.Results 2.Outline 3.Challenges 4.Lessons

2. Development & Outline of Tokyo's Cap-and-Trade Program



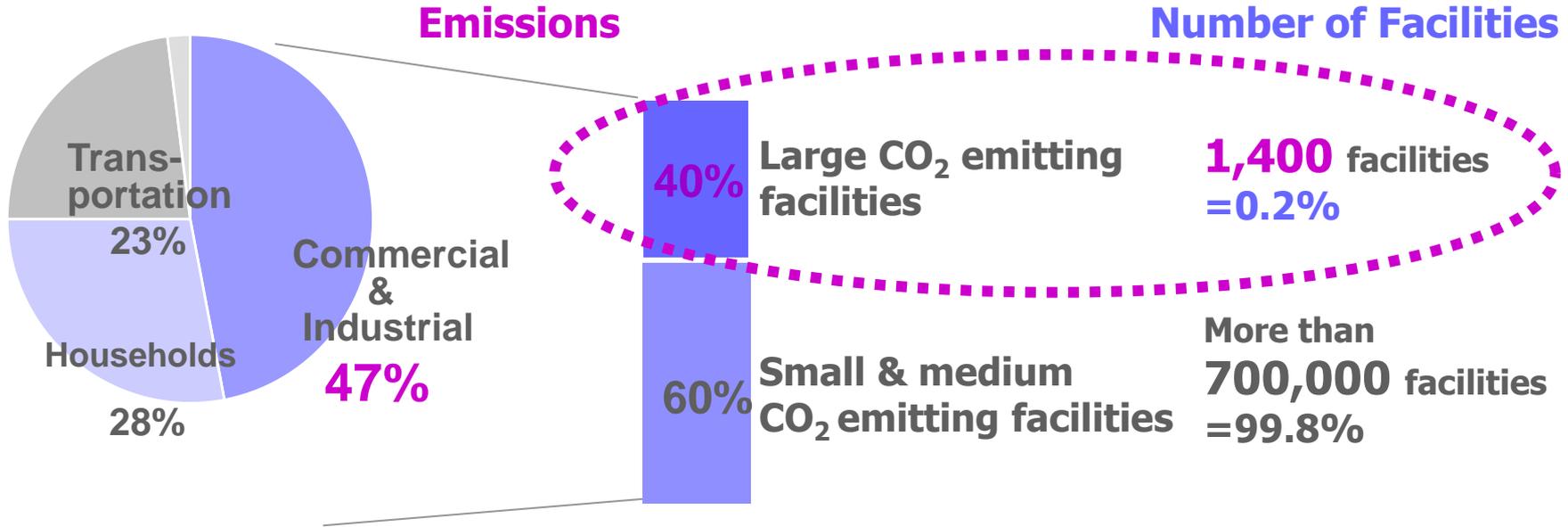


Tokyo's GHG Emission Reduction Target

25% below 2000 levels by **2020**

Tokyo Carbon Dioxide Footprint

Total CO₂ Emissions: **59** million tonnes (FY2010)



Program Development

2002

2005

2010

Reporting program

(CO₂ Emission Reporting Program)

*Not mandatory reduction program

Reduction target
averaged only 2%

**Mandatory
reduction program:**

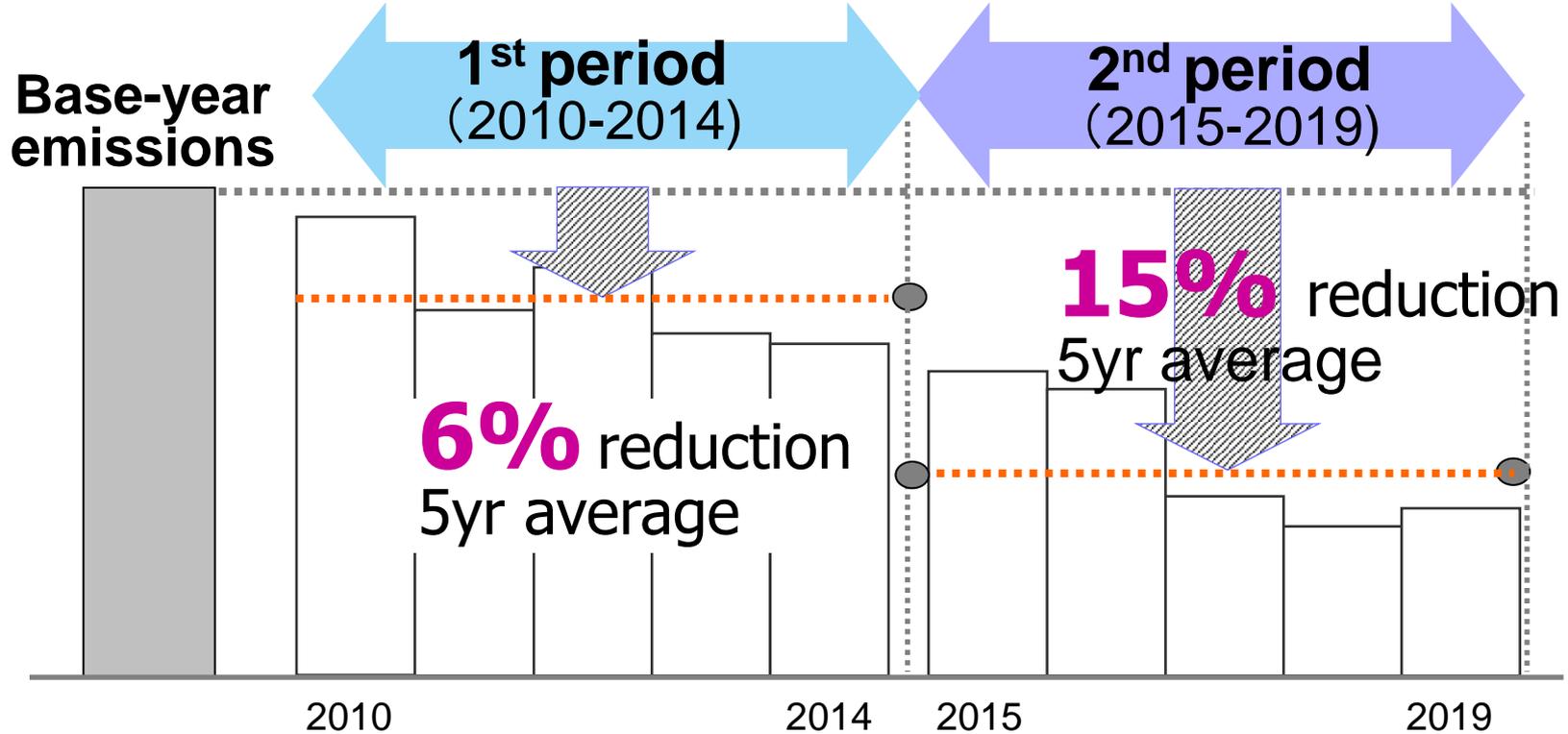
**Tokyo
Cap-and-Trade Program**

Accumulation of data helped to design a tailor-made C&T



Cap Setting

A Compliance Period: 5 years



2. Program Development & Outline

Allowance Allocation

$$\text{Emission Allowance} = \left(\text{Base-year emissions} \times (100\% - \text{Compliance factor}) \right) \times 5 \text{ years}$$

Compliance factor by category

I -1	Commercial buildings, District cooling & heating facilities (plants)	8%
I -2	Commercial buildings using DHC	6%
II	Factories, etc.	6%
Top level	Certified facilities as: Top Level / Near-top level Facility	1/2 or 3/4 of the compliance factor

2. Program Development & Outline



3. Challenges

Stakeholder Engagement



Stakeholder Meetings



Associate Participants:

Business Groups

Companies with interests

Environmental NGOs

Tokyo Metropolitan Government

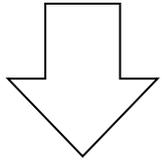
Open to the public

About 200 audience members
every time

3. Challenges

Discussion Points at the Meetings 1

Major Objections 1



Fair allowance allocation is impossible!
For some facilities, further reductions are impossible

TMG: Show reduction potential by **data**

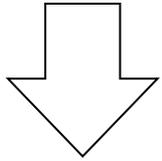


"Top Level Facility Certification"



Discussion Points at the Meetings 2

Major Objections 2



Difficulties in Tenant Buildings

Controlling emissions from tenants is impossible!

TMG: Establish a mechanism for tenant issues



Tenant Obligation and Participation System
Rules for Tenant Shifts





4. What we learned: Important factors

Three misunderstandings for energy efficiency

Key factors for success



Need to break misunderstandings on building energy efficiency

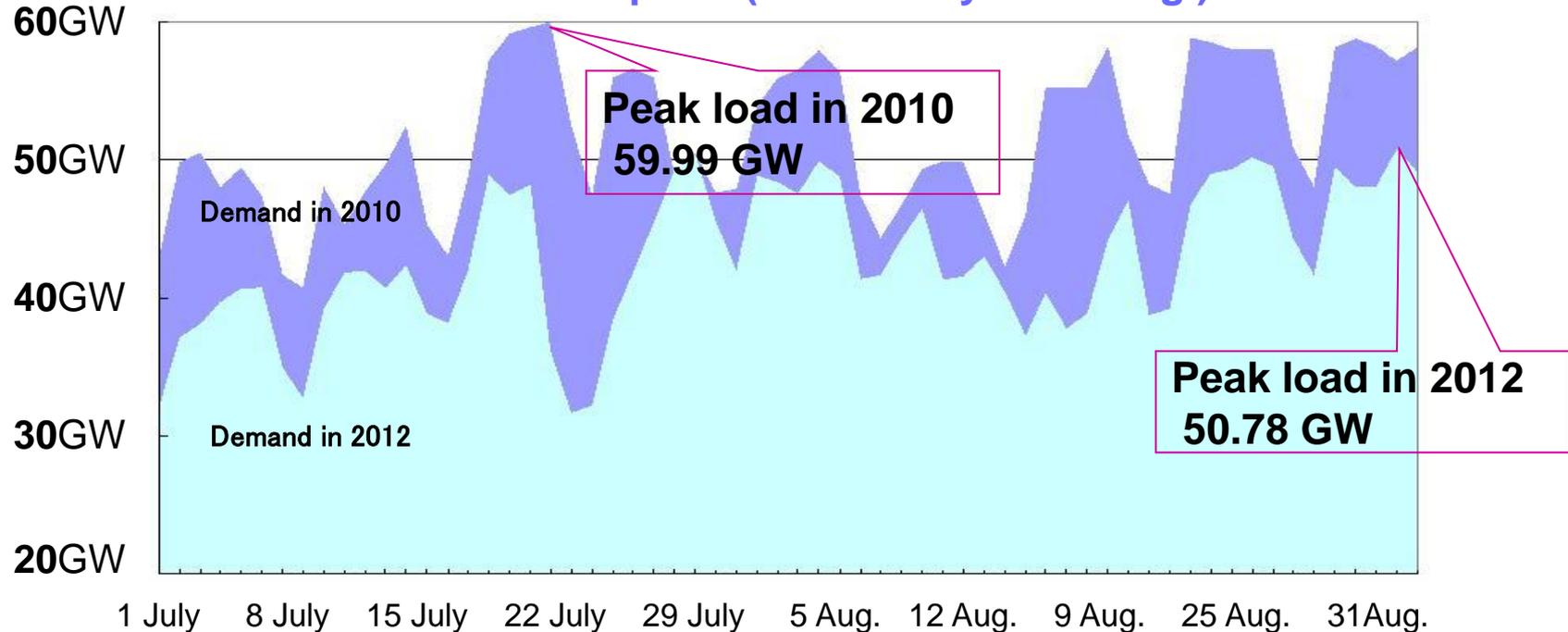
Typical complaints from building owners

1. We have already done a lot!
2. We know our buildings well; there's nothing else we can do!
3. It's costly to retrofit. We can not afford it!



Overcoming the Power Crisis after the Fukushima accident

Peak Power Consumption (from 1 July to 31 Aug.)



Preparedness for the Power Crisis

1. Already did energy audits
2. Already have action plans
3. Already have communication



The Importance of Cities' Role





Thank you!



TMG Website

www.kankyo.metro.tokyo.jp/eng



www.facebook.com/Environment.TMG



Contact

tokyoets@kankyo.metro.tokyo.jp