

# A regional government developing global warming countermeasures that are gaining the world's attention: Efforts to reduce CO<sub>2</sub> emissions through the Target-Setting Emissions Trading Program (TSETP)



## Background/Reason for and Aims of the Project

### Advanced efforts by a local government in Japan to reduce CO<sub>2</sub> emissions

Saitama Prefecture has been carrying out measures against global warming since the 1990s, but in 2002 Saitama issued an ordinance requiring companies using energy of or above a certain amount to formulate and submit a plan for measures against global warming.

Momentum for measures against global warming subsequently grew in Japan after Tokyo introduced its own independent emissions trading system in 2007 and the G8 Hokkaido Toyako Summit was held in 2008.

Against this backdrop, Saitama Prefecture focused attention on emissions by the industrial and business sectors, which comprised approx. 40% of total emissions within the prefecture, and in 2011 introduced the Target-Setting Emissions Trading Program (TSETP) with the aim of reducing emissions from large-scale workplaces.

## Outline of the Target-Setting Emissions Trading Program (TSETP)

### The current program is the Third Target-Setting Emissions Trading Program (TSETP) (Five-Year Plan) (2020–2024)

**Targets:** Workplaces that have been using 1,500 kL or more of crude oil equivalent energy for three consecutive fiscal years.

**Content:** Reduce the CO<sub>2</sub> emissions (total amount) for the target workplaces with the aim of achieving the reduction target.

**Reduction target:** Standard emissions amount for each plant multiplied by the target reduction rate set by Saitama Prefecture for the relevant plan period.

**Evaluation:** Each plant's achievement of the reduction target for the relevant plan period is evaluated.

\*First Plan Period: FY2011–FY2014

Second Plan Period onwards: plan period for each five-year plan

## Features and Innovation

### 1. A unique emissions reduction method incorporating the concept of emissions trading

In addition to persistent energy-saving measures, in the case of workplaces that are falling below the target emission level, the program aims to achieve emission targets for the entire area through the trading of emission amounts in excess of reduction targets achieved by other workplaces and/or carbon dioxide reduction value (credit) obtained through the introduction of renewable energy.

### 2. Prefectural government proactively advertises outstanding companies

Workplaces that are implementing outstanding measures are accredited by the Prefectural Governor as Top Level Workplaces. Accredited workplaces can have not only their outstanding measures advertised to the general public, but also their emission target reduction rate reduced. As of 2019, two workplaces have been accredited as Top Level Workplaces and one plant has been accredited as a Semi-Top Level Plant.

### 3. Operation of the system across prefectural borders

Under a partnership agreement, Saitama workplaces can exchange credit for emissions reductions with a similar system operating in Tokyo, which borders Saitama, and plant

operators are working together in preparing registration paperwork for the third-party verification organisations that verify the calculated CO<sub>2</sub> emission amounts.

### Effects of the System

**The world is focusing on the results of global warming measures developed by a local government body in Japan!**

In order for target workplaces to achieve their emissions reduction targets, they implement various measures including switching to fuel with low CO<sub>2</sub> emissions, introducing LED lighting and high-efficiency co-generation systems, and installing power-generation equipment that uses renewable energy. In the plan periods this far, the reduction rates achieved have far exceeded the reduction targets.

#### ▪ First Plan Period (2011–2014)

Reduction target rate: 6% of the standard emission amount for plants; 8% for office buildings

System targets: 608 workplaces

Results: Overall reductions of 22% (7.8 million tons) were achieved, greatly exceeding the reduction targets (22% reduction for plants; 22% reduction for office buildings)

Of the target workplaces, approx. 10% utilized emissions trading.

#### ▪ Second Plan Period (2015–2019)

Reduction target rate: 13% of the standard emission amount for plants; 15% for office buildings

System targets: 586 workplaces (based on results for 2018)

Results: Overall reductions of 29% (3.05 million tons) were achieved (29% reduction for plants; 29% reduction for office buildings) (based on results for 2018)

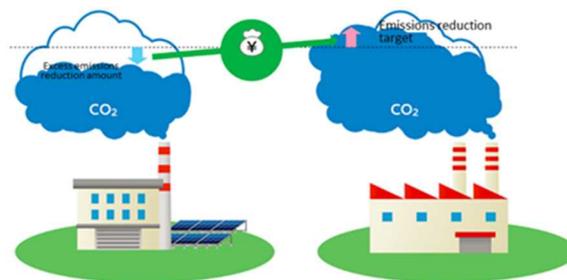
The workplaces that were unable to meet their targets intend to utilize emissions trading in the future.

#### ▪ Third Plan Period (2020–2024)

Reduction target rate: 20% of the standard emission amount for plants; 22% for office

buildings

System targets: 586 workplaces (as of FY2018)



Conceptual Diagram of the Target-Setting Emissions Trading Program (TSETP)

### Features and Innovation

#### 1. Measures gaining the world's attention and praise

At the Innovate 4 Climate (I4C) international conference held by the World Bank in Singapore in June 2019, the program was introduced together with one of the companies accredited as a Top Level Workplace, Kanto Glico Co., Ltd. (now Glico Manufacturing Japan Co., Ltd.) in a presentation describing the program's content and results.

In December of the same year, the Thailand Greenhouse Gas Management Organization—which is promoting measures to reduce greenhouse gasses in Thailand—visited Saitama Prefecture and hearings were held so Thailand could consider introducing its own emissions trading scheme back home.

#### 2. Deepening emissions reduction activities using top sporting events as incentives

For the Rugby World Cup 2019™ held in Japan, matches were also played in Kumagaya City, Saitama Prefecture, and the CO<sub>2</sub> emitted in Kumagaya City over those three days was reduced to zero using emissions credit generated under TSETP through implementation of the “Zero Carbon Saitama” system.

Furthermore, similar initiatives are to be implemented for the Tokyo 2020 Olympics and Paralympics, with calls made for large companies to provide credit, resulting in approx. 0.96 tons being provided by 63 companies by the end of September 2020.



Presentation at an international conference

### Issues and Responses

#### **Program will continue as businesses and government work together**

When companies targeted for emission reductions consult with the prefectural government on issues such as difficulty in finding more ways to reduce emissions or confusion with how to implement reduction measures, government employees visit the workplaces in question with specialists and propose possible measures to be taken and provide consultations regarding the program.

With regard to small and medium sized businesses, which are said to be experiencing difficulties implementing emissions reduction measures due to cost and technological issues, Saitama Prefecture provides free energy-saving diagnosis services and has established a system for subsidising the installation of CO<sub>2</sub> emissions-reducing equipment, extending support for concrete reduction measures.



Conducting energy-saving diagnoses through plant visits

### Future Developments

In addition to promoting energy-saving measures, Saitama Prefecture is aiming to achieve the targets of the Third Plan Period, while at the same time promoting the spread of low-carbon electricity.

For the Third Plan Period, which began in FY2020, Saitama Prefecture has raised target reduction rates by 7% with the aim of achieving further reductions in CO<sub>2</sub> emissions.

In addition, as a new initiative, Saitama Prefecture has revised regulations to enable power supplied to target workplaces in the form of low-carbon electricity (e.g., solar power) to be calculated toward emissions reductions. Moving forward, Saitama Prefecture intends to also promote reducing CO<sub>2</sub> emission amounts by selecting low-carbon electricity sources such as this.

### Reference URLs

[https://www.pref.saitama.lg.jp/a0502/torihiki\\_seido.html](https://www.pref.saitama.lg.jp/a0502/torihiki_seido.html)

(Official Saitama Prefecture website “Target-Setting Emissions Trading Program (TSETP)” (Available in Japanese only; multilingual translation services provided.))

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