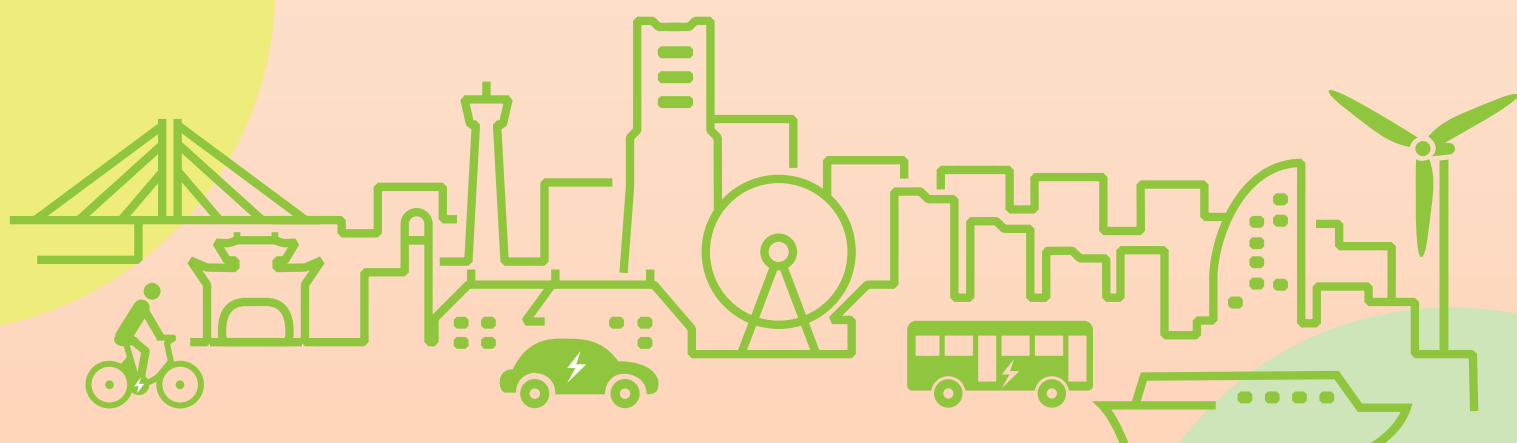


# Yokohama City Action Plan for Global Warming Countermeasures

## Outline



## 1 Objective of Revision

In light of domestic and international trends related to global warming and the enactment of the Yokohama City Ordinance on the Promotion of the Formation of a Decarbonized Society (hereinafter referred to as the "Decarbonization Ordinance"), this plan has been revised in order to further promote efforts to achieve the new 2030 GHG emission reduction target and realize a decarbonized society by 2050.

※Formulation of Plan: 2011, Latest revision: 2018

## 2 Term of the revised Plan

From FY 2022 to FY 2030

## 3 Key Points of the Revision



**Point 1** Redefine the Yokohama Vision for 2050 towards achieving a decarbonized society

See Chapter 2.

Zero Carbon Yokohama—  
Achieve net zero greenhouse gas emissions by 2050 to realize a sustainable city

**Point 2** New Greenhouse Gas Emission Reduction Target for FY 2030

See Chapter 3.

Greenhouse gas emission reduction target for FY 2030: 50% reduction (compared to FY 2013)

**Point 3** Establish the Basic Policy and Priority Initiatives to achieve the goals

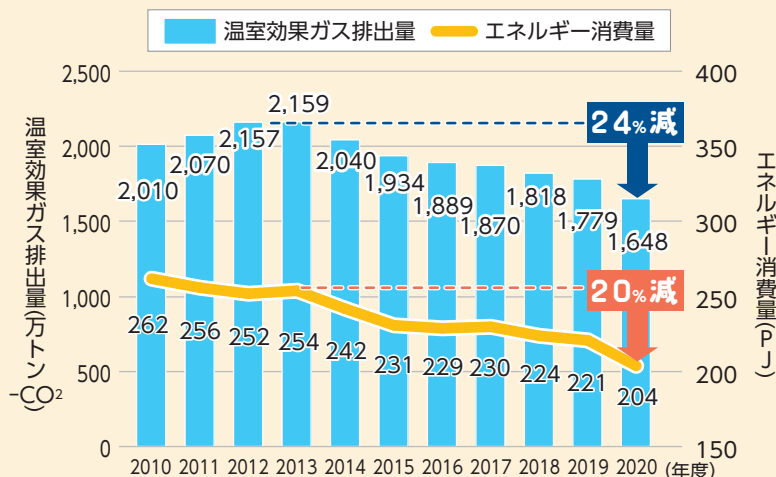
See Chapter 4.

Seven Basic Policies are defined, which target FY 2030 and outline measures to be implemented in a wide range of areas, while five Priority Initiatives are set as leading projects that will drive the whole process.

## 4 Trends in Greenhouse Gas Emissions in Yokohama City

(1) In FY 2020, the total greenhouse gas emissions from the city area (preliminary figures) will decrease by 24% to 16.48 MtCO<sub>2</sub>, and energy consumption will decrease by 20% to 204 PJ<sup>※1</sup> (compared to FY 2013).

(2) This decrease is mainly explained by a decrease in energy consumption as a result of energy-saving efforts, a decrease in CO<sub>2</sub> emissions from electric power (i.e., a decrease in the electric power emission factor<sup>※2</sup>) due to the low carbonization of electric power (expansion of the introduction of renewable energy nationwide etc.), and the impact of the new coronavirus infection.



※1 PJ (petajoule): J (joule) is a unit of energy, and peta represents a thousand trillion times.

※2 Decrease in electricity emission factor: [Actual] 0.531 kg-CO<sub>2</sub>/kWh in FY 2013 → 0.447 kg-CO<sub>2</sub>/kWh in FY 2020 (CO<sub>2</sub> emission factor by TEPCO Energy Partner, Incorporated)

### Column



### Mitigation measures and Adaptation measures

In addition to the mitigation measures to reduce greenhouse gas emissions, adaptation measures for natural disasters, such as storms and floods, and health risks, such as heat stroke, are also important. The city of Yokohama actively promotes initiatives that use the green infrastructure and other measures.

## Yokohama Vision for 2050 to Achieve a Decarbonized Society

In order to take on the challenge of achieving our goals, we have redefined the Yokohama Vision for 2050 to be shared with citizens and private entities to realize a decarbonized society. While following Yokohama City's Aim and the Yokohama City Future Vision that have been set forth up to now, we will integrate the whole into the Yokohama Vision for 2050, taking into account the purpose of the Decarbonization Ordinance.

### Yokohama Vision for 2050



Zero Carbon Yokohama

~Achieve net zero greenhouse gas emissions by 2050  
and become a sustainable city.~

### Vision of Yokohama City

- A city where decarbonization becomes widespread in daily life and in the community.
- A city where the city's economy is driven by decarbonization and continues to develop sustainably.
- A city that is decarbonizing and dealing with the impacts of climate change.



## 1

### Greenhouse Gas Emission Reduction Targets

Target fiscal year (target year)	Base year [Greenhouse gas emissions]	Greenhouse gas emission reduction target [Greenhouse gas emission quantity target]
Fiscal year 2030	FY 2013 <b>21.59</b> MtCO <sub>2</sub>	<b>50% 10.79</b> MtCO <sub>2</sub>
Fiscal year 2050	—	<b>Net zero greenhouse gas emissions</b>

## 2

### Renewable Energy Installation Targets

To promote local production and local consumption of renewable energy in the city to achieve the FY 2030 target, the amount of renewable energy equipment installed is set as follows.

Actual results (FY 2020)

**290,000** kW

FY 2030

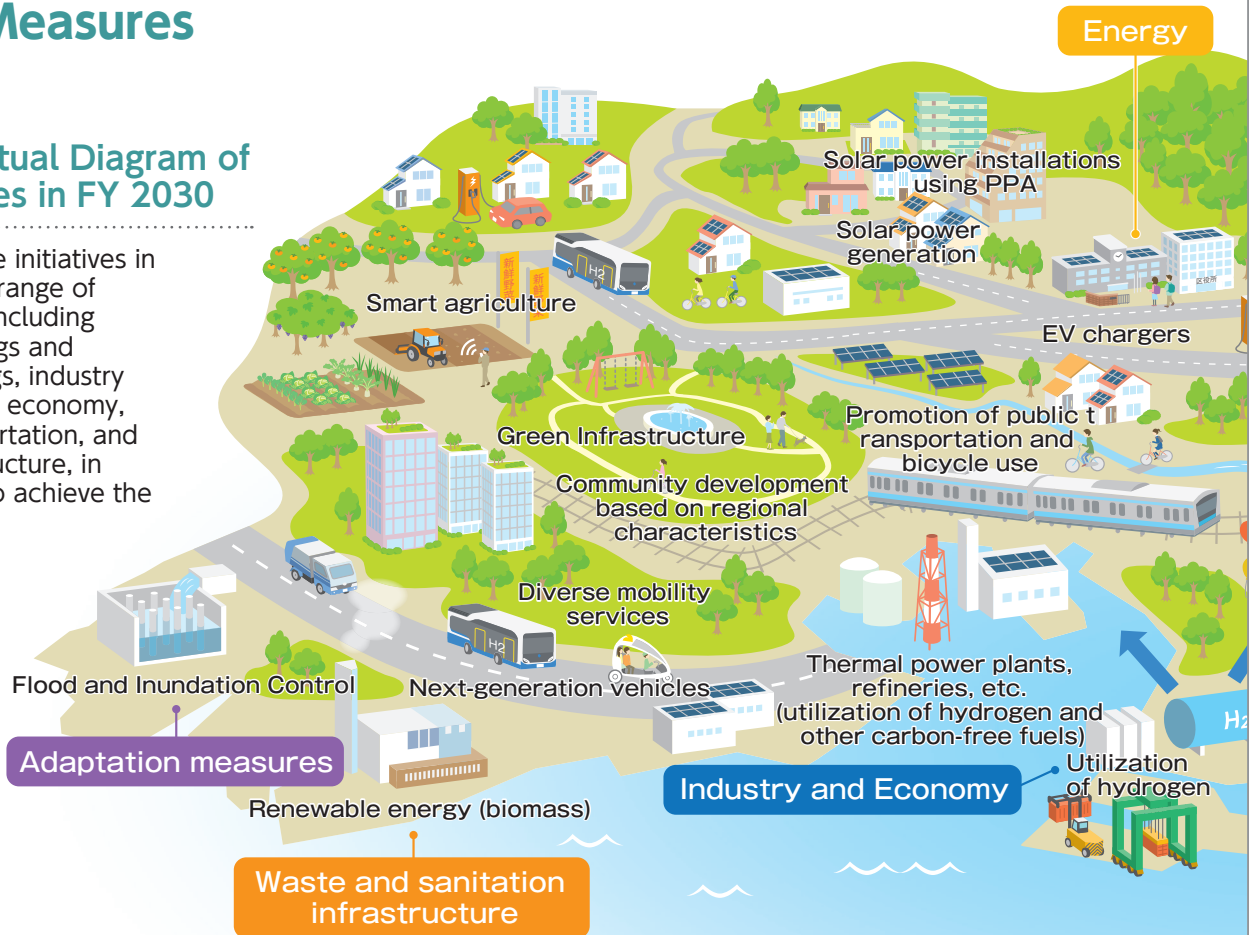
**690,000** kW



## 1

## Conceptual Diagram of Initiatives in FY 2030

- Promote initiatives in a wide range of areas, including dwellings and buildings, industry and the economy, transportation, and infrastructure, in order to achieve the target.



## 2

## Basic Policy and Priority Initiatives

Seven Basic Policies are defined, which target FY 2030 and outline measures to be implemented in a wide range of areas, while five Priority Initiatives are set as leading projects that will drive the whole process.

## Correspondence between Basic Policies and Priority Initiatives

	Priority Initiative 1 Creation of decarbonization innovation in the Yokohama waterfront area	Priority Initiative 2 Enhanced support for decarbonization management	Priority Initiative 3 City planning for decarbonization	Priority Initiative 4 Introduction of decarbonized lifestyles	Priority Initiative 5 City Hall's leading action
<b>Basic Policy 1</b> Creation of environmental and economic synergies	◎	◎		○	
<b>Basic Policy 2</b> Promote urban development integrated with decarbonization			◎	○	
<b>Basic Policy 3</b> Promote thorough energy conservation and diffusion and expansion of renewable energies	○	○	○	◎	○
<b>Basic Policy 4</b> Promote behavior change by citizens and private entities		○	○	◎	
<b>Basic Policy 5</b> Contribute to the common global challenge of decarbonization					
<b>Basic Policy 6</b> City Hall's leading action					◎
<b>Basic Policy 7</b> Adaptation to climate change impacts					

The symbols in the table indicate the strength of the policy linkages.

## (1) Basic Policy

Policy targeting 2030 and outlining measures in a wide range of areas, including decarbonization and adaptation to climate change.

## (2) Priority Initiatives

Priority Initiatives are those selected and reconstructed as initiatives that contribute, in particular, to the cyclical and sustainable development of the city's economy and change the behavior of citizens and private entities towards a 50% reduction by 2030 among the measures linked to the basic policy.



## 3 Measures for Basic Policies

### Basic Policy 1

Creation of environmental and economic synergies



### Basic Policy 2

Promote urban development integrated with decarbonization



### Basic Policy 3

Promote thorough energy conservation and diffusion and expansion of renewable energies



### Basic Policy 4

Promote behavior change by citizens and businesses



### Basic Policy 5

Contribute to the common global challenge of decarbonization



### Basic Policy 6

City Hall's leading action



### Basic Policy 7

Adaptation to climate change impacts



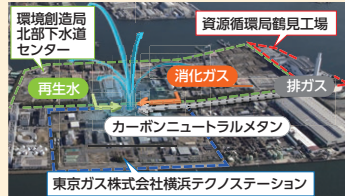


## Priority Initiative①

## Creating innovation for decarbonization in Yokohama's waterfront area

### Direction of the action

Taking advantage of the city's potential, especially in the waterfront area, we will promote activities to create new decarbonization innovations in hydrogen, ammonia, synthetic methane, liquid synthetic fuels, etc., in cooperation with various entities, such as companies located in the area and promote the formation of a carbon-neutral port in collaboration with waterfront industries.



Initiatives in the Suehiro decarbonization model area

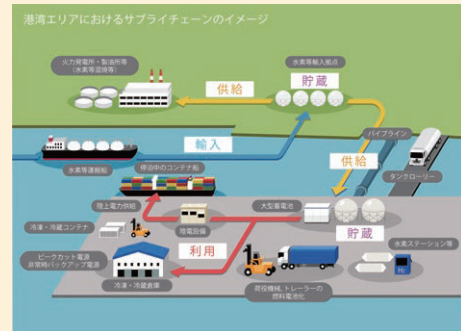


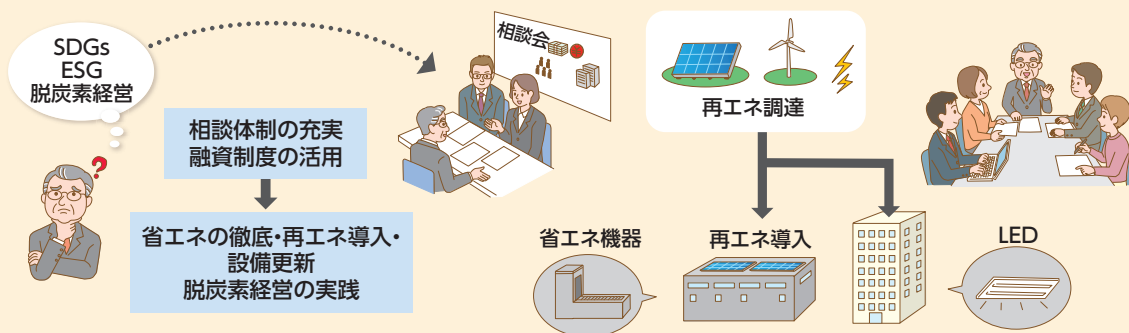
Image diagram of formation of carbon neutral port

## Priority Initiative②

## Enhanced support for decarbonization management

### Direction of the action

We will enhance support measures in collaboration with private sector financial institutions for decarbonization activities, such as energy conservation, transition to a circular economy that leads to economic growth, and transition to decarbonized management for sustainable development of small and medium-sized enterprises in the city.



## Priority Initiative③

## City planning for decarbonization

### Direction of the action

#### ①Development in the urban areas

Aiming to achieve net zero CO<sub>2</sub> emissions from electricity consumption by FY 2030 with participating facilities in Minato Mirai 21, a leading decarbonization area, we will create an advanced model for decarbonization in a big city.



#### ②Development in the suburban areas

- Create a sustainable city model at the World Horticultural Exhibition and promote the development of Kamiseya from the legacies of the exhibition
- Promote suburban development aimed at a decarbonized society through development of advanced model projects that promote decarbonization and solving local problems and creating unrest in an integrated way with suburban areas



Image diagram of the World Horticultural Exhibition (Source: Draft Master Plan of the World Horticultural Exhibition Yokohama 2027)

#### 横浜版脱炭素化モデル事業イメージ



## Priority Initiative④

## Introduction of decarbonized lifestyles

### Direction of the action

#### ① Improvement of energy-saving performance of dwelling

- Promote heat insulation, energy efficiency, and the introduction of renewable energy in all types of dwellings by providing citizens with easily understandable information on the benefits of health, comfort, economic efficiency, disaster prevention, etc.
- Support the enhancement of the technical skills of the city's designers and builders

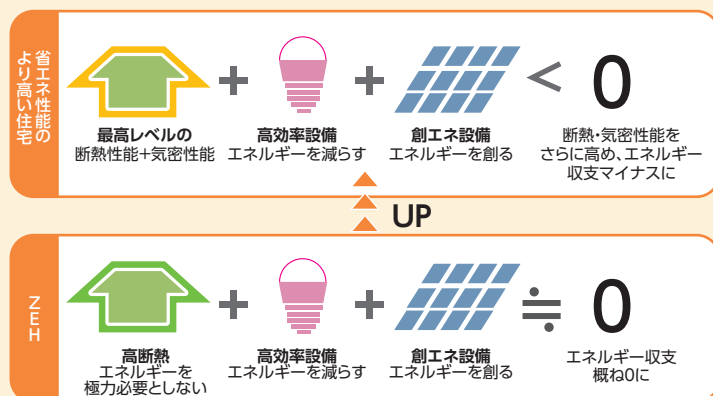
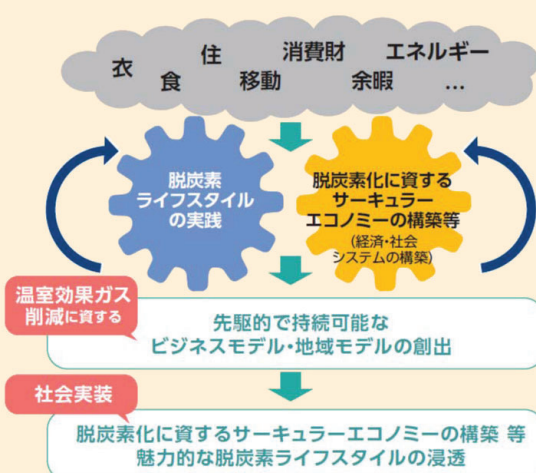


Image diagram of more energy-efficient dwelling and ZEH

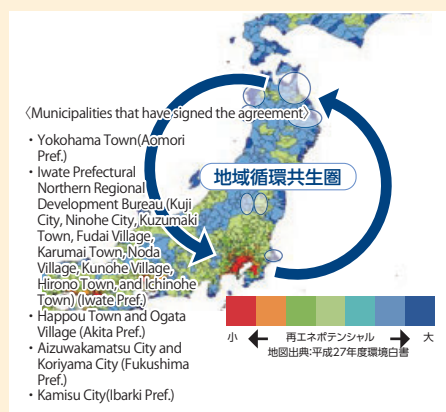
#### ③ Activities combined with decarbonized lifestyle practice and circular economy creation

Promote activities related to the practice of decarbonized lifestyles and the creation of a circular economy that aims for synergies between the environment and the economy and sustainable growth in business activities.



#### ② Introduction of renewable energy

- Promote the introduction of renewable energy in collaboration with other municipalities
- The city office, taking the lead to promote the expansion of renewable energy, including the installation of solar power generation equipment in public facilities and the use of renewable energy (environmental value) at incineration plants



#### ④ Practice of decarbonized lifestyle campaigns

- Select and strengthen effective initiatives from existing attempts
- Consider and implement effective campaigns based on the analysis of past attempts



Example of an existing campaign

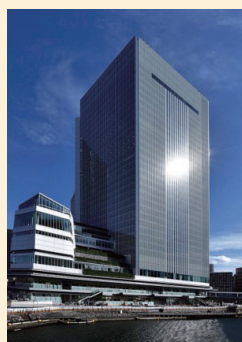


## Priority Initiative⑤

## City Hall's leading action

### Direction of the action

Promote initiatives in the construction and renovation of public buildings, introduction of renewable energy, and operational measures for official vehicles to achieve the greenhouse gas reduction targets in Yokohama City Action Plan for Global Warming Prevention (City Office Version).



City hall with high environmental performance



Next-generation vehicles

## 1

### Promotional Structure of the Plan

- Reinforce a municipal structure into a system headed by the mayor  
※Conventional organization: "Liaison Conference of Heads of Wards and Bureaus for Global Warming Prevention" headed by the deputy mayor
- Promoting collaboration and cooperation with citizens, businesses, universities and other schools, research institutions, and citizen groups, taking into account national and other trends, including the use of frameworks, such as the Association of Citizens for Climate Action and the Association of Businesses for Climate Action.

## 2

### Progress Management of the Plan

- Quantify and disclosure the city's greenhouse gas emissions each year
- Report and announce the progress of the Plan to the City Council and the Environmental Planning Council
- Reviewing the plan as appropriate based on national and other trends