

Efforts of Tokyo Metropolitan Government to accelerate the widespread use of ZEVs

To achieve a Zero Emission Tokyo



**Bureau of Environment
Tokyo Metropolitan Government**

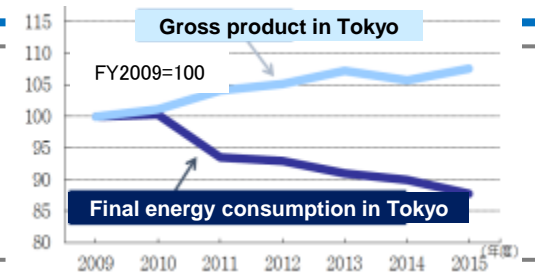
Formulating the Zero Emission Tokyo strategy

Zero carbon strategy for achieving a city opening up the future and continuing to shine

Zero Emission Tokyo: A Sustainable and Resilient Strategy pursuing 1.5°C

<Background>

- TMG has implemented the Cap-and-Trade program and other pioneering countermeasures to climate change.
- TMG has promoted investment in LEDs and other energy-saving facilities, leading to the decoupling of energy consumption from GDP in Tokyo.
- Tokyo accounts for 50% of real estate investment in Japan, and 3/4 of foreign-affiliated companies are located in Tokyo.



- ◆ On the other hand, seriousness of damages from natural disasters, such as life-threatening heat waves and unprecedented downpours, and the urgency of implementing measures are anew underscored.

IPCC's 1.5°C report:

Limiting global warming to 1.5°C has less risk than 2°C. Net-zero emissions by 2050 is necessary.

- ◆ Climate change is the greatest issue in achieving SDGs.

Implementing measures against climate change leads to **benefits for and growth of society and the economy**, as well as environmental risk reduction.

Measures against climate change have **radically changed** (a paradigm shift including society and the economy).

As a metropolis that protects citizens and attracts business and investment, Tokyo is required to drastically change itself to a zero carbon society.

➤ Urgency of adaptation measures

- Not only enhancing measures for energy saving and renewable energy in buildings, but also **evolving and transforming comprehensive efforts** in every field to **measures against climate change**

- ✓ Reducing **CO₂ emissions** associated with the use of **plastics** and other resources **in and out of Tokyo**
- ✓ **Measures against vehicles**, which have achieved significant improvement in air quality

Taking the next step towards opening up the future, TMG plans to formulate **the Zero Emission Tokyo strategy** this December.

Formulating the Zero Emission Tokyo strategy

Zero carbon strategy for achieving a city opening up the future and continuing to shine

Zero Emission Tokyo: A Sustainable and Resilient Strategy pursuing 1.5°C

<Basic principle of the strategy>

TMG's Vision

Achieve a Zero Emission Tokyo, which contributes to zero CO₂ emissions in 2050, pursuing 1.5°C

Key Points

- (1) **General development of mitigation and adaptation measures:** Establish a robust city that protects life and property of citizens from extreme climate change * Develop TMG's climate change adaptation plan
- (2) **Incorporate resource circulation into measures against climate change** and transform the whole of Tokyo to a zero carbon society
- (3) Develop a **midterm plan for ZEVs*** and plastics, and begin new efforts to enhance measures for energy saving and renewable energy.* Zero emission vehicle (Electric vehicle (EV), plug-in hybrid vehicle (PHV), and fuel cell vehicle (FCV))



Establishment of Zero Emission Tokyo HP



Governor of Tokyo made the declaration at U20 Mayors Summit : May 2019

Efforts of TMG to accelerate the widespread use of ZEVs I

Widespread use of ZEVs

Target

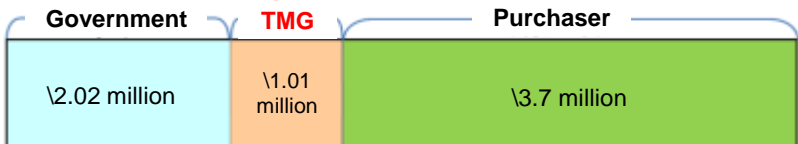
Aims to increase the sales of ZEVs up to 50% of the total sales of passenger vehicles in Tokyo by 2030 (The sales of ZEVs accounted for 2.2% in 2017)

<Details>

Subsidy program

The scope of subsidies on the purchase of EVs, PHVs, and electric motorcycles was expanded to individuals and large companies from FY2019.

TMG grants subsidies on the purchase of EVs, PHVs, FCVs, and electric motorcycles to businesses with offices in Tokyo, and individuals.

Name	Eligibility	Rate and limitation
Program for widespread use of EVs, PHVs, etc.	Part of the introduction cost is subsidized to businesses (including the self-employed) and individuals who purchase new EVs, PHVs, or external electricity supply devices.	Businesses: EV: ¥250,000, PHV: ¥200,000 Individuals: EV/PHV: ¥300,000 * External electricity supply device: ¥400,000 for both businesses and individuals * This can be used with national or municipality subsidies.
Program for promoting introduction of FCVs	Part of the introduction cost is subsidized to businesses (including the self-employed) and individuals who purchase new FCVs.	Half of the national government subsidy * External electricity supply device: ¥400,000 for both businesses and individuals * This can be used with national or municipality subsidies. <Overview when purchasing an FCV of ¥6.73 million (excluding tax)> 
Program for widespread use of electric motorcycles	Part of the introduction cost is subsidized to businesses (including the self-employed) and individuals who purchase new electric motorcycles.	75% of the difference between the base price and a same class gasoline motorcycle price Limit: ¥180,000 or ¥360,000 * This can be used with national or municipality subsidies.

TMG initiatives

- In principle, TMG will purchase ZEVs when renewing TMG-owned vehicles in FY2019 and after. (New ZEVs to be purchased: 74)
- To promote the thorough introduction of ZEVs, TMG will, in principle, continue to purchase ZEVs when renewing TMG owned vehicles.

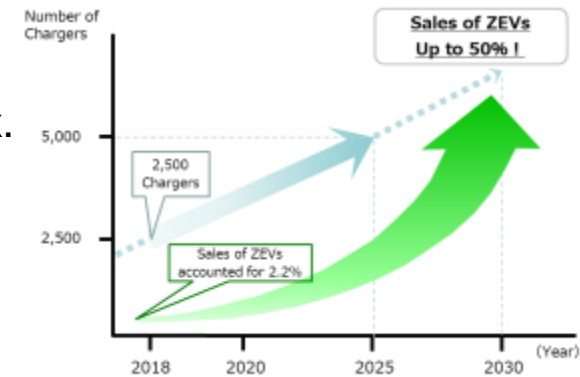
Efforts of TMG to accelerate the widespread use of ZEVs II

Installing infrastructure for the widespread use of ZEVs (EVs and PHVs)

Current public chargers in Tokyo: approx. 2,500 (including approx. 300 fast chargers)

Course of action

- ✓ Aim to **double the number of chargers by 2025**
- ✓ Aim to **increase the number of fast chargers to 1,000 by 2030**



<Details>

Subsidy program

The scope of the subsidy was expanded to offices, plants, commercial facilities, and accommodations from FY2019.

Name	Eligibility	Rate and limitation
Program for promoting introduction of charging systems	Purchase and installation costs are subsidized to those who install charging systems for EVs and PHVs in apartments, offices, plants, commercial facilities, and accommodations.	<p>Purchase cost: Difference between the actual cost and national government subsidy (With limitation depending on models)</p> <p>Installation cost: Difference between the actual cost and national government subsidy (Limitation: ¥810,000)</p> <p>* Commercial facilities and accommodations are not covered.</p>

TMG initiatives

- **TMG will install fast charging systems at 10 TMG facilities** (including 6 metropolitan parks, Tokyo Metropolitan Main Building No.1, and Tachikawa Regional Office Building) **in FY2019.**
- **Chargers have been installed in 32 parking lots of Tokyo Metropolitan Public Corporation for Road Improvement and Management.**
- **TMG will install public chargers at TMG's facilities for citizens in the future.**



Fast chargers (Tachikawa Regional Office Building)

Efforts of TMG to accelerate the widespread use of ZEVs III

Installing infrastructure for the widespread use of ZEVs (FCVs)

Target

✓ Number of hydrogen stations to be installed

2020: 35 stations, 2025: 80 stations, 2030: 150 stations

* 14 stations (10 fixed and 4 portable stations) are operating as of March 2019.

<Details>

Subsidy program

Name	Eligibility	Rate and limitation	
Program for promoting introduction of hydrogen charging stations	Part of the installation or operation cost is subsidized to businesses that install or operate hydrogen charging stations.	Installation subsidy	<p>Bus-capable stations: Up to ¥0.39 billion. (All costs are subsidized in combination with national government subsidies)</p> <p>Renovation and enhancement for bus-capable stations: Up to ¥0.4 billion (Tokyo lone subsidy, subsidy rate: 80%)</p> <p>Non-bus-capable stations: Up to ¥0.15 billion, ¥0.25 billion for small and medium companies (Subsidy rate: 80% in combination with national government subsidies, 100% for small and medium companies) (* For fixed stations with an installation cost of ¥0.5 billion)</p> <p>Installation of barriers: Up to ¥30 million (Tokyo lone subsidy, subsidy rate: 80%, 100% for small and medium companies)</p> <p>Costs for relocating existing facilities when installing hydrogen charging systems in gas stations: Up to ¥30 million (Tokyo lone subsidy, subsidy rate: 100% only for small and medium companies)</p>
		Operation subsidy	<p>Land cost: One-third of the land lease payment</p> <p>Operation cost: Up to ¥5 million, ¥10 million for small and medium companies (2-system bus-capable stations: Up to ¥20 million)</p>

- A private company opened a commercial hydrogen charging station at land held by the Tokyo Environmental Public Service Corporation in Koto ward (March 2016).
- Using part of the area of the Kasai Water Reclamation Center (Bureau of Sewerage), TMG accepted applications for installing and operating hydrogen charging stations for fuel-cell buses, which are now being built (September 2018).

Efforts of TMG to accelerate the widespread use of ZEVs IV

Raising awareness for the widespread use of ZEVs

<Details>

Tokyo Island Motor Show

- In 2018, TMG held the Tokyo Island Motor Show in Hachijojima and Niijima islands, to offer an opportunity for residents and visitors in the islands to readily experience EVs and understand the benefits of ZEVs.

Program for promoting introduction of ZEVs to car rental and car sharing businesses

- In FY2019, TMG and businesses will jointly create ZEV usage opportunities so that Tokyo residents can use ZEV (EV / FCV) in car rental and car sharing services at an affordable price.
 - ⇒ Starting the program step by step from September
 - <EV:4 businesses (60 units) , FCV:3 businesses (40 units) >

Program for the trial use of EVs and electric motorcycles in the islands

- TMG started the program in FY2018. TMG lends EVs and electric motorcycles to businesses in the islands to raise awareness of ZEVs, and analyzes follow-up questionnaires to discuss future activities.
- The program was conducted in Hachijojima island in FY2018 and is being conducted in Oshima island this year.



Tokyo Island Motor Show
(Hachijojima island)



Vehicles used
(Oshima island)

Future initiatives

- **TMG plans to reveal detailed measures and a course of action for spreading the use of ZEVs in accordance with the formulation of the Zero Emission Tokyo strategy in December 2019.**

An aerial photograph of a dense urban landscape, likely Tokyo, featuring numerous skyscrapers and a large green park area in the foreground. The text "Thank you for Listening!" is overlaid in the center.

Thank you for Listening!