







#### Towards 2020



#### Use hydrogen in the Olympic and Paralympic Village during the Games, promoting its use as a fuel source

- Hydrogen will be used as fuel for the Olympic cauldron and the torch for the Tokyo 2020 Torch Relay for the first time
- Link initiatives to future urban development by using Fukushima-sourced renewables in the Olympic and Paralympic Village, introducing fuel cells and other new technologies, and building hydrogen stations





Note: The existing Harumi Passenger Ship Termina structure is scheduled to be demolished after the Tokyo 2020 Games, but the replacement structure (details TBA) will continue to handle passenger ships. ©Designated Builders of the Type 1 Urban Redevelopment

Project in the West Harumi 5-Chome District

### Hydrogen station

Total of 21 stations built (at the end of March 2021)



Use hydrogen mobility solutions





Fuel cell vehicles

▶ Total of 85 buses introduced (at the end of FY2020)

Fuel cell buses

▶Total of 1,097 cars (at the end of FY2019)

# Electricity Heat

Pure hydrogen

fuel cells

Buildings

energy usage ·Introduce household fuel cells (Enefarm)

Use AI-powered energy

management systems to

predict demand in order

to minimize and optimize

Installed in a total of 62.000 homes (at the end of FY2019)

#### **Promote energy efficiency and renewables**

#### Offset all CO2 emissions in Tokyo during the four days of the opening and closing ceremonies

- Minimize/optimize energy usage by putting in LED lighting at all competition venues, bus stops, and marine parks
- Encourage the use of more zero-emissions vehicles, including electric and fuel-cell cars and buses
- ▶ Percentage of gasoline-free new passenger vehicle sales  $14\% (FY2015) \Rightarrow 39.5\% (FY2019)$
- •EV: Electric vehicles •FCV: Fuel cell vehicles
- •ZEV: Zero-emissions vehicles (vehicles that do not produce CO2 or other exhaust gases while running)
- Actively incorporate the use of solar cells, geothermal heat pumps, and other renewable energy sources at competition venues
- Have Tokyo Zero Carbon 4 Days in 2020 by offsetting all CO<sub>2</sub> emissions in Tokyo during the four days of the opening and CO2 closing ceremonies of the Tokyo 2020 Games
  - ▶ Offset with 720,000 tons of carbon credits provided by participating businesses

(Another 3.46 million credits supplied under the same system are handed over to OCOGs, in order to offset CO2 discharged with the hosting of the Games.)





CO2 reductions obtained by implementing reduction initiatives through the program

#### Beyond 2020

#### Use the eco-friendly sustainability legacy of the Games to get to a zero-emission Tokyo



#### Greenhouse gas emissions (vs. 2000): Down 50% (2030)

#### Accelerate efforts to create a hydrogen-powered society

#### ■Generate hydrogen demand and increase supply in the capital

- •Promote private-sector tie-ups that generate hydrogen demand in Tokyo
- ·Carry out initiatives in the Rinkai area to promote social implementation of commercial fuel cell mobility
- ■Use hydrogen for zero-emissions urban development
- Make renewables and hydrogen the cornerstones of urban development in the Bay Area



·Use hydrogen derived from renewables



Large fuel cell truck (vehicle concept) Tokyo Hydrogen Initiative online



Use CO<sub>2</sub>-free hydrogen

#### **Promote zero-emissions homes**

Use subsidies and other incentives to encourage the installation of renewable energy equipment





•Push hard to make homes more efficient through the addition of solar panels and fuel cells

## Overview of Tokyo Zero Emission Housing Insulation Equipment @

Renewable power usage: around 50% (2030)

#### Create a future where ZEVs dominate the roads

#### Make 100% of new passenger vehicles sold gasoline-free (2030)

Push hard to make more of the passenger vehicles, buses, and motorbikes on Tokyo's roads ZEVs

Build hydrogen stations, battery-charging stations, and other social infrastructure to support the spread of ZEVs

Create opportunities for people to encounter and experience ZEVs firsthand to generate enthusiasm for the day when nearly all vehicles are ZEVs



32 33