

Initiatives of Decarbonization Leading Areas

Energy Saving

Rigorous energy-saving measures are in place to minimize energy consumption to the greatest extent possible.

LED Conversion

Highly efficient LED lighting is introduced ahead of schedule. Dimming technologies such as motion and light sensors further enhance energy-saving effects.

Power Demand Response

A strategy to balance electricity demand (usage) and supply (generation), enabling effective use of variable renewable energy. Since individual facilities have limited capacity for adjustments, a collective regional approach is being pursued for greater efficiency.

Renewable Energy

Minato Mirai is a high-energy consumption district with limited potential for local renewable energy generation. To address this, efforts are being made to maximize local renewable energy production and consumption while securing additional renewable power from external sources through regional collaboration.

Solar Panel Installation

Available rooftop spaces within the district are being utilized for solar panel installations. Additionally, unused municipal land outside the district, such as rainwater retention basins, is being leveraged for offsite Power Purchase Agreement (PPA) solar panel projects.

Regional Collaboration

Locally generated renewable energy currently covers approximately 10% of the district's electricity consumption. To expand this, partnerships with municipalities rich in renewable energy resources are being established to procure power from external sources. This initiative aligns with the concept of a Regional Circulatory and Symbiotic Zone, promoting sustainable coexistence with power plant host communities.

Decarbonizing Heat Energy

Approximately 70% of the district's CO₂ emissions come from electricity, while the remaining 30% is generated from heat used for heating and cooling. Leveraging the area's large-scale district heating and cooling system, one of the largest in Japan, collaborative efforts with Minato Mirai 21 District Heating and Cooling Co., Ltd. are underway to enhance energy efficiency and decarbonize heat sources. These initiatives aim to significantly reduce greenhouse gas emissions associated with heat consumption.

Waste Reduction and Utilization

Efforts are underway to reduce and reuse large volumes of waste, creating a sustainable urban resource circulation model.

Minato Mirai Circular City Project

A collaboration between the Yokohama SDGs Design Center and Yokohama City is driving initiatives to promote a circular economy and resource circulation.

Bottle-to-Bottle Recycling

A local closed-loop recycling system is being developed to transform used PET bottles into new ones. This horizontal recycling approach reduces CO₂ emissions by approximately 60% compared to producing bottles from petroleum-based materials.

Domestic SAF Promotion

Used cooking oil is being collected and repurposed as a raw material for Sustainable Aviation Fuel (SAF). Compared to petroleum-based jet fuel, this initiative can reduce lifecycle CO₂ emissions by approximately 80%. Yokohama City is actively participating in the Fry to Fly Project, which promotes domestic resource circulation for a decarbonized society.

Revitalizing the City through Decarbonization & Behavioral Change

Efforts are underway to encourage behavioral shifts among workers, visitors, and residents.

Raising Awareness through Events

Participation in local events, such as the innovation-driven urban festival, YOXO FESTIVAL, helps showcase decarbonization and resource circulation initiatives, inspiring community engagement.

Public EV Charging Stations

To accelerate vehicle electrification, the installation of highly accessible public charging stations is being promoted. In December 2023, a rapid charger was installed at Shinko Central Park. This marks Japan's first initiative to establish a 150kW ultra-fast EV charger on public roads, along with a charging station compatible with electric trucks.

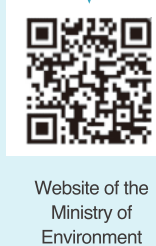
Participating Facilities



Co-Proposer
General Incorporated Association
Yokohama Minato Mirai 21
TEL: +81 45 682 0021



Scan here for details on the Decarbonization Leading Area



YOKOHAMA
GO GREEN
Logo



Minato Mirai 21
Decarbonization
Leading Area Logo



Ministry of Environment
Decarbonization
Leading Area Logo

What is a Decarbonization Leading Area?

A Decarbonization Leading Area is designated by Japan's Ministry of the Environment to spearhead carbon neutrality by 2050. These areas aim to achieve key milestones, such as eliminating CO₂ emissions from electricity consumption, by 2030, tailored to local needs. Minato Mirai 21 was selected in April 2022 as one of the first Decarbonizing Leading Areas.

Initiatives of Decarbonization Leading Areas in Minato Mirai 21

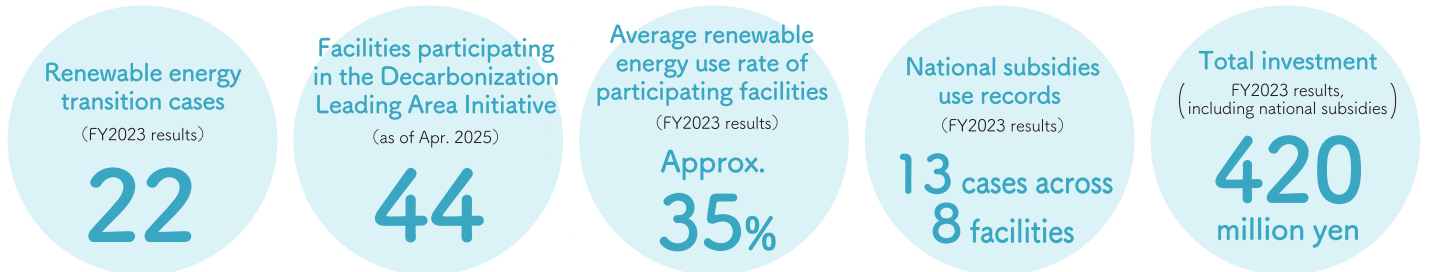
Urban Decarbonization Model through Public-Private Partnership

Minato Mirai 21 is a vibrant hub where offices, commercial facilities, residence, corporate headquarters, R&D centers, music halls, universities, and MICE facilities converge. As a major energy consumer, it accounts for approximately 10% of Yokohama's commercial energy use.

On the other hand, the district faces challenges in decarbonization, including limited space for solar power installations and the need to reduce CO₂ emissions from heat consumption and waste.

To address these issues, Minato Mirai 21 is working closely with local businesses and leveraging national decarbonization grants to develop an urban model for a sustainable, low-carbon future.

Aiming for 100% renewable energy-based electricity by 2030!



Minato Mirai District Data



Pickup

Solar Panel Installation

Onsite Installations in the District



Minato Mirai 21 Clean Center



Yokohama Baycourt Club Hotel & Spa Resort /
The Kahala Hotel & Resort Yokohama



Yokohama World Porters

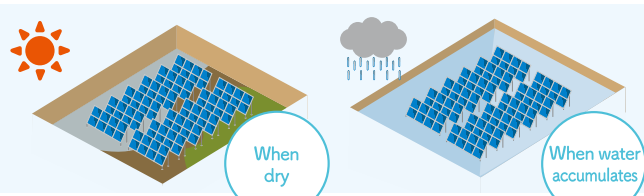
With support from the Decarbonization Leading Area Initiative subsidy, we have introduced a fully self-consumption solar power system. Come visit Yokohama World Porters and experience a space powered by eco-friendly energy!



Koji Noguchi, General Manager, Yokohama World Porters

Offsite Solar Panel Installation

Solar panels are installed on municipal land outside the district, such as rainwater retention basins, to generate electricity and supply it to the district.



Pickup

Regional Collaboration

Expanding the Use of Renewable Energy

Since local power generation is not enough to meet demand, renewable energy from partner municipalities is supplied to Yokohama. By collaborating with these regions, stronger connections are built, driving regional revitalization and sustainability.



Regional Collaboration for Community Revitalization



Illumination event powered by environmental value from partner municipalities (FY 2022 and FY2023)



Regional Revitalization Mirai Exchange Program with Aizuwakamatsu 2023 – High school participants engaged in SAF promotion

Minato Mirai 21 - Decarbonizing Leading Area Map

As of April, 2025



Pickup

Public EV Charging Stations



Shinko Central Park public EV charging station

Pickup

Raising Awareness through Events



Exhibit at YOXO FESTIVAL



Banner displays along moving walkways

Pickup

Decarbonizing Heat Energy

What is district heating and cooling?

- Centrally produces and supplies chilled water and steam to buildings via underground pipelines.
- More energy-efficient, safer, and improves urban aesthetics compared to individual systems
- Leverages centralized production to advance heat decarbonization.



Heat is distributed through pipelines housed in large-scale shared utility tunnels within the district.

In 2024, we launched a carbon offset service for heat, adopted by many facilities. We will continue working with customers to fully decarbonize Minato Mirai 21!

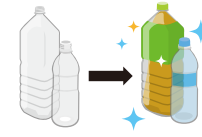
Akira Nishida,
Manager, Minato Mirai 21
District Heating and Cooling Co., Ltd.

Pickup

Bottle-to-Bottle Recycling



A recycling box for separating caps, labels, leftover drinks, cans, and bottles.



We hope this initiative encourages more interest in resource recycling. Please help by emptying PET bottles and separating caps and labels!



Michio Hirayama, General Manager, Planning & Coordination,
General Incorporated Association Yokohama Minato Mirai 21

Pickup

Promoting Domestic SAF



Fry to Fly Project symbol

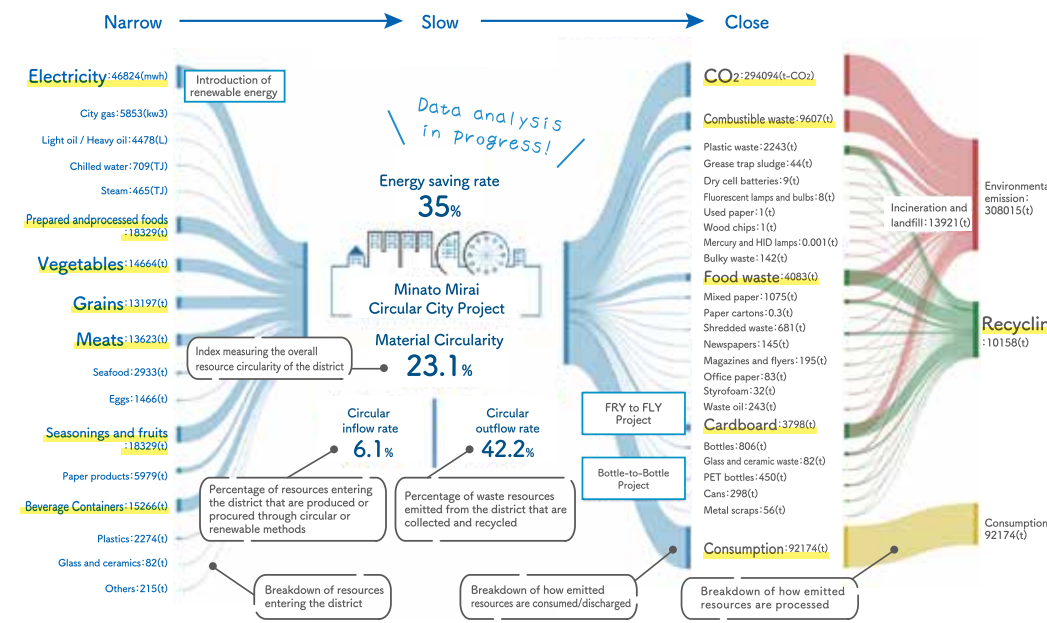


Household used cooking oil collection at a supermarket

Pickup

Minato Mirai Material Flow Map

As part of the Minato Mirai Circular Project, this map visualizes resource input and waste output in the district. Analyzing these flows helps develop new strategies for efficient use and recycling.



Pickup

Energy Saving

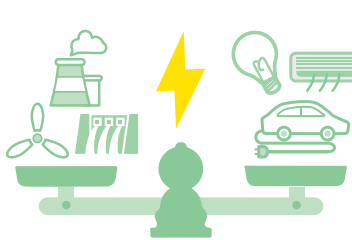
LED Lighting



MM Grand Central Tower

LED upgrades incorporate dimming and scheduling controls to maximize energy savings.

Demand Response (DR)



Automated systems are being deployed to respond to DR signals, alongside coordinated energy management across multiple facilities to enhance efficiency.