

OHGISHIMA 2050



JFE

JFE Holdings, Inc.

OHGISHIMA 2050 - our basic policies

A century-long vision

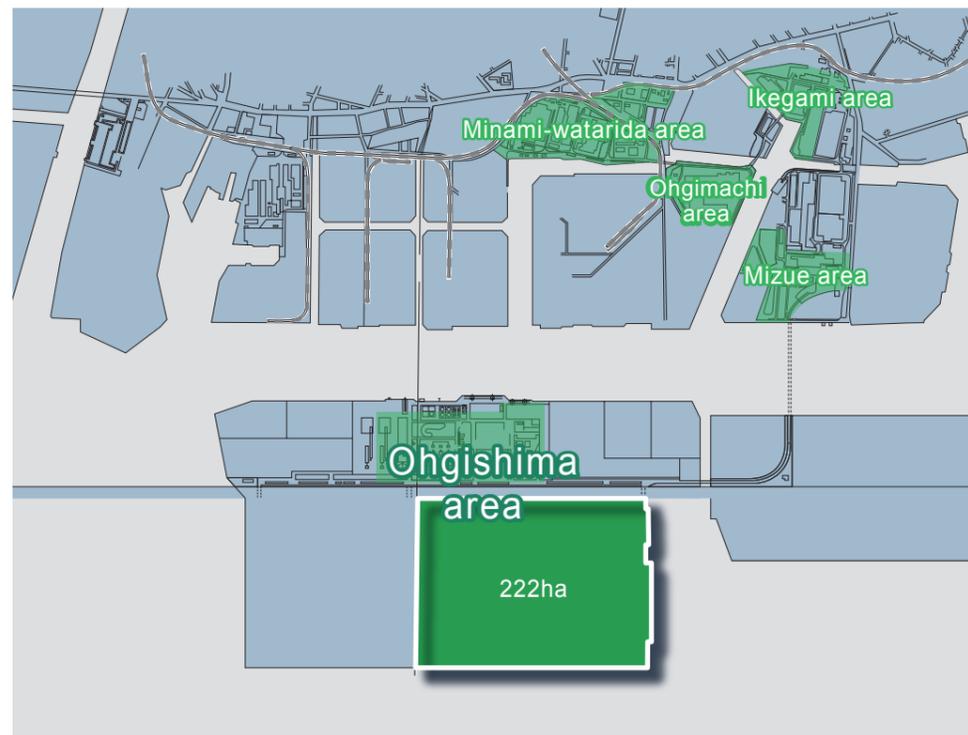
Over more than a century since its founding in 1912 as Nippon Kokan in the Minami-watarida area, JFE Steel's East Japan Works (Keihin District) has played a key role in the development of the Keihin Industrial Zone.

JFE Steel plans to shut down the blast furnaces and other upstream process facilities there in September 2023 as part of structural reforms we are implementing aimed at optimizing our domestic operations. In view of this, JFE Holdings has entered into a land use agreement with Kawasaki City and has been working intensively with the city authorities to evaluate prospective future land use at the site. This work has now culminated in the release of OHGISHIMA 2050, the JFE Group's conceptual land use plan formulated in accordance with the City's land use policies.

Through OHGISHIMA 2050, the JFE Group aims to convert the land for use on projects that offer significant public benefit and that will contribute to solving some of the priority issues Japan faces. By creating new industrial sites and jobs that will benefit the country over the next 100 years, the JFE Group hopes to promote the sustainable development of local communities and society as a whole.

Looking ahead, the JFE Group will be working with Kawasaki City, other government agencies, and local companies, including energy companies, to harness the combined strengths of the Keihin Waterfront Area to transform the use of the land while engaging in responsible area management with a view to overall completion in 2050.

- Around 400 ha. of land in the Keihin district are slated for land use conversion.
- OHGISHIMA 2050 is mainly centered upon a 222-ha. space in the Ohgishima area.



Land use concept

Aiming to address key national challenges and fuel sustainable development of the Keihin Waterfront Area

CARBON NEUTRALITY

Taking advantage of the location's strong energy industry presence and its deep-water berths, we aim to develop a supply hub for hydrogen and other next-generation energy sources while also pursuing carbon neutrality across the entire area and thereby leading Japan's overall push toward carbon neutrality.

INNOVATION

Located away from established urban areas and surrounded by the sea, this huge site in Greater Tokyo is ripe for attracting domestic and foreign private investment to drive the real-world implementation of future technologies and to contribute to the development of next-generation industries that will fuel Japan's international competitiveness.

RESILIENCE

A vast, flat area accessible by land, sea and air, the site is well suited to serve the Greater Tokyo area's disaster preparedness and management needs in the event of large-scale disasters.

We aim to create fields of innovation and enterprise that will address the complex challenges involved in the pursuit of carbon neutrality, developing the site into an urban area that will contribute to the sustainable development of communities and society as a whole and help address some of the key challenges Japan faces.

It is also hoped that the area will be able to provide support for the Greater Tokyo area's disaster prevention and management initiatives.



Advantages of the Ohgishima area

- Expansive site in the Greater Tokyo area, a major consumption zone
- Close to Haneda Airport and major roads such as the Metropolitan Expressway Bayshore Route
- Abundance of power plants and other energy facilities in the surrounding area
- Located in Keihin Port, which has one of the deepest berths in Japan

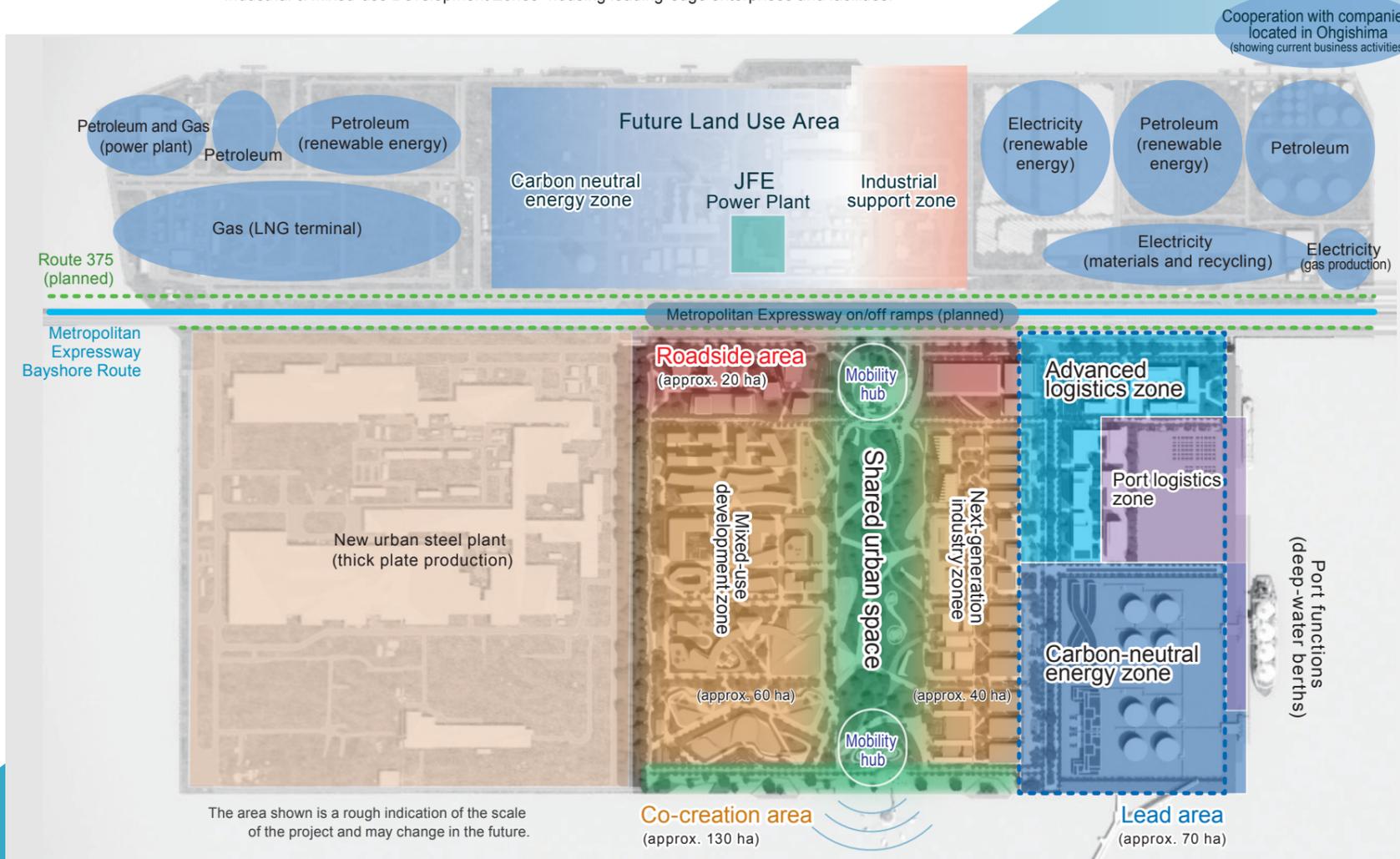


CARBON NEUTRAL
INNOVATION
RESILIENCE

Land use zoning

Area zoning will be implemented to promote carbon neutrality and innovation across the entire district, through the deployment of cutting-edge technologies, the installation of hydrogen supply facilities and similar initiatives. One of the zones will be designated as the "Lead Area." This zone will promote the early-development use of these technologies and energy supplies. In addition, advanced logistics facilities will be developed in conjunction with the construction of a highway interchange that will also help improve road access to the entire area.

Outside the Lead Area a Co-creation area will be established; the JFE Group will work with representatives from government, private-sector companies, and other organizations to create cutting-edge futuristic spaces here. Along the center of this zone will be a "Shared Urban Space" equipped with the most up-to-date infrastructure; it will be flanked on both sides by a "Next-generation Industrial & Mixed-use Development Zones" housing leading-edge enterprises and facilities.



The area shown is a rough indication of the scale of the project and may change in the future.

Roadside area Attractive ease of access

Development of the Metropolitan Expressway on/off ramps and National Route 357 is expected to dramatically improve access. We will take advantage of this to attract facilities and projects suited to the land-use concept.



Lead Area Will lead the re-use of the land across the entire district

With port facilities offering one of Japan's deepest berths, this area will lead the way toward carbon neutrality and promote the alternative use of the land across the entire area.

Carbon-neutral Energy Zone

With the Kawasaki coastal area having been selected for projects aimed at demonstrating how a large-scale hydrogen supply chain can be built, we aim to develop the site into a hydrogen supply hub.



Port Logistics Zone

We aim to develop public port facilities to help drive the development of Kawasaki Port.



Advanced Logistics Zone

We hope to attract business operators to create a cutting-edge logistics hub.



Co-creation area Public-private collaboration creating cutting-edge, futuristic spaces

By linking the Shared Urban Space and the Next-generation Industrial and Mixed-use Development Zones, we will create a venue where testing of future-defining technologies can be conducted and the latest services can be implemented. We thereby aim to encourage the creation of a range of next-generation functionality spanning industry and commerce, culture, and lifestyles.

Shared urban space

A common-use space filled with greenery and equipped with cutting-edge infrastructure that will support digital transformation and "green transformation"; it will incorporate next-generation mobility services, carbon-neutral energy supplies, and high-speed data infrastructure.

The open environment will provide opportunities for the testing of futuristic technologies and the experiencing of futuristic spaces; it will also allow the employees of tenant companies to interact in a natural environment bordering the ocean, sparking creativity and the generation of new ideas.



Next-generation Industrial and Mixed-use Development Zone

We hope the Shared Urban Space, a testbed equipped with next-generation infrastructure, will help both domestic and overseas companies produce creative business proposals that will promote next-generation industry and commerce, culture, and lifestyles, and boost digital and green transformation, making our land-use concept a reality. Our aim is to create a city environment in tune with our changing times and which accommodates diversity.



Next-generation infrastructure

Example Initiatives

Carbon-neutral energy

- Electricity generated locally from hydrogen and other renewable energy sources
- Continuity of power generation to help maintain urban functionality and recover quickly in the event of disasters
- Localized use of cold energy from hydrogen tanks

Mobility systems

- Fully automated driving systems that allow people and next-generation vehicles to safely coexist
- Real-world implementation of drones and flying cars
- Provision of optimal mobility services based on mobility data monitoring

Mobility hub

- A new transport node for land, sea and air facilitating next-generation mobility
- Large-scale, smooth transition from traditional transport to next-generation mobility

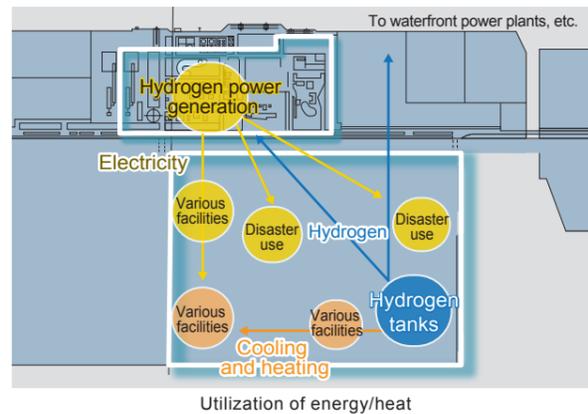
Disaster prevention and management

- Use of the shared urban space as a base camp for life-saving rescue operations and temporary storage for disaster waste
- Use of the mobility hub for wide-area transportation of medical supplies
- Use of Logistics Zones for wide-area transportation of goods

Digital twins

- Next-generation urban development facilitating interaction between cyberspace and physical space leveraging data, AI and IoT
- Data on disasters, infrastructure operation, and similar areas collected in cyberspace and used for risk prediction to facilitate effective and efficient urban management

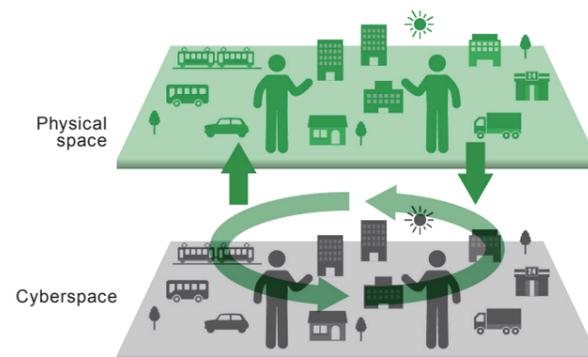
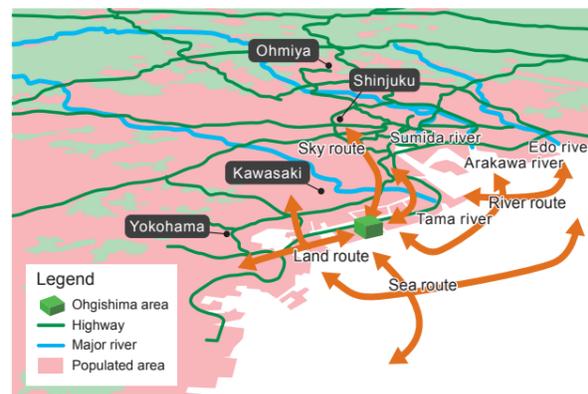
This project offers an opportunity to create a new city landscape within a vast Greater Tokyo location. The following kinds of initiatives, incorporating and leveraging the latest public- and private-sector know-how, will help realize next-generation infrastructure and urban functionality that will support the cities of the future.



Artist's impression of mobility hub (land side)



Artist's impression of mobility hub (ocean side)



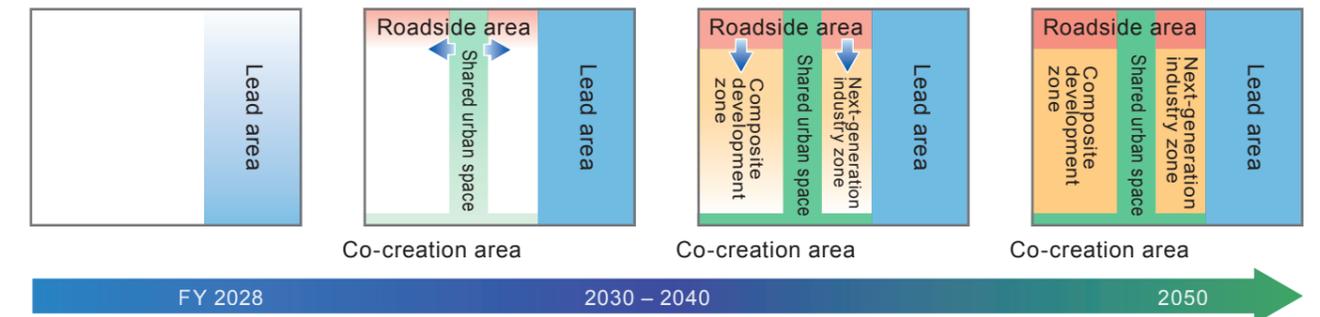
Land use strategies

- Encouraging private investment through urban infrastructure development

To facilitate this large-scale land use conversion, we will lead the development of urban infrastructure—roads, berths, Shared Urban Spaces, etc.—and encourage private investment geared to the land-use concept.

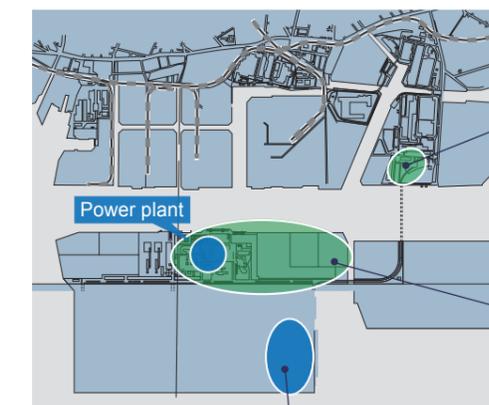
- Pursuing seamless, progressive development

Land use will partially commence in the Lead Area in 2028, followed by seamless, progressive development in the Roadside Area and Co-creation Area, with the goal of overall completion by 2050.



JFE Group's role

The JFE Group is working with Kawasaki City, other government agencies, and local companies, including energy companies, to develop the area in a way that will help promote the sustainable development of the Keihin Waterfront Area, and we will accordingly undertake comprehensive land management, encompassing site sales, leasing, and business use. In terms of business use, we will be looking at new carbon-neutral businesses and recycling businesses on a group-wide basis.



(ST: JFE Steel, EN: JFE Engineering, SH: JFE Shoji)

Mizue district

Recycling business (EN)

- Collaborating with Kawasaki City to develop the site as a major recycling center for Greater Tokyo

Ohgishima north

Carbon-neutrality businesses

CO₂ business (EN, ST, SH)

- Collection, transport, storage, liquefaction, shipping, CCS/CCU for CO₂ emitted by local energy companies etc.

Electric power business (ST, EN)

- Introduction of H₂ into power plants for clean electricity generation, storage, and sale

Ohgishima Lead Area

Carbon-neutrality businesses (ST, EN, SH)

- Participation in supply chains for hydrogen, ammonia, etc.



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