

Environment: Executive Summary

The JFE Group strives to maintain its businesses in harmony with the environment for the prosperity of society. We have positioned climate change as a key management concern and formulated the JFE Group Environmental Vision for 2050 toward achieving carbon neutrality by 2050. To this end, we are exploring ways to reduce CO₂ emissions in steelmaking processes and expand our contribution to reducing CO₂ emissions in society as a whole. The entire Group is working in concert to establish a framework for environmental management and address climate change and other environmental issues such as environmental protection and the effective use of resources.

The JFE Group systematically addresses climate change by reflecting the TCFD's philosophy in its management strategies. In the steel business, we created a roadmap for achieving carbon neutrality by 2050 and are working on CO₂ emission reduction initiatives toward short-, medium-, and long-term targets. Our overall goals are to reduce CO₂ emissions by 18% by the end of FY2024, compared to FY2013, and by more than 30% in FY2030. Until 2030, we will continue to shift to low-carbon steelmaking processes and at the same time develop ultra-innovative technologies, mainly the carbon-recycling blast furnace, to achieve carbon neutrality by 2050. This year, we achieved some progress on the construction work for the test furnaces in verifying each technology and started to apply some of them for tests. In the first half of FY2023, we started supplying the JGreeX™ brand, a variety of green-steel products that will significantly lower CO₂ emissions in the steel manufacturing process based on the mass balance approach, compared to conventional products. There are several plans to adopt JGreeX™ in shipbuilding and for other applications, and we are expanding supplies.

In the engineering business, we plan to contribute 25 million tonnes of CO₂ reduction to society as a whole in FY2030 by provisioning renewable energy power generation facilities. We also intend to further expand our renewable energy power generation by leveraging the Group's collective strength and accelerating the offshore wind power generation business. This year, we completed the construction of the country's first monopile manufacturing plant and started production in April 2024.

We are developing and providing environmentally sound processes and products as part of our contribution to the environment through our businesses, including the reduction of our environmental impact as stated in our environmental policy. In addition, we have set aggressive targets to manage initiatives such as effectively using resources in the mainstay steelmaking processes, preventing air and water pollution, and efficiently using water resources, and we are actively addressing these concerns. Furthermore, we are striving to minimize the impact on the ecosystem surrounding our business sites and analyzing the impact on diversity of using our steel slag products.

Targets and Results for Environment-Related Material Issues of Corporate Management

► [Material Issues of Corporate Management and KPIs](#) (P.18)

Key Initiatives

- Promoting the acquisition of Environment Management System certification, conducting internal and external environmental audits
- Executing initiatives for achieving [the JFE Group Environmental Vision for 2050](#) (P. 52) and carbon neutrality
- [Expanding the supply of JGreeX™](#) green steel products based on the mass balance approach (P. 61)
- [Development of ultra-innovative technologies](#) (P. 63), mainly the carbon-recycling blast furnace
- Group-wide effort to accelerate the commercialization of [the offshore wind-power generation business](#) (P. 77)
- Development and provision of environmentally sound products and processes
- Development of products that take advantage of steel's excellent recyclability, contribution to reducing plastic waste
- [Effective use of water resources](#) (P. 119) in steelmaking processes (high recirculation rate)
- Improvement and assessment of the environment at and around business sites, [contribution to biodiversity](#) (P. 127) from using steel slag products