Climate Change Initiatives

Basic approach

Aichi Steel emits CO_2 both directly and indirectly through the manufacturing processes of its various products, such as heating of steel materials, and melting of steel scrap, which is the raw material of its main product, specialty steel. For this reason, our response to climate change is a serious management issue from the perspectives of risks and opportunities. We are accelerating our efforts to decarbonize with the goal of achieving carbon neutrality as early as 2050. As a resource circulation-based company that uses steel scrap as a raw material in manufacturing, we will utilize our strengths, which have contributed to sustainable manufacturing through materials and parts, to help realize a decarbonized society. To this end, we will also continue to develop and provide products and services that contribute to reduced CO_2 emissions across the entire supply chain.

Endorsement of TCFD recommendations and information disclosure

In 2021, we declared our support for the recommendations of the TCFD (Task Force on Climate-related Financial Disclosures.)We have been analyzing various scenarios based on the impacts, and associated risks and opportunities, that climate change may have on our business, and have considered how to reflect the results in management strategy to achieve sustainable growth. We detail our climate-related initiatives here in line with the framework (governance, strategy, risk management, and metrics and targets) recommended by the TCFD.

From FY2024, we established a Sustainability Promotion Department within the Corporate Planning Division to plan and drive company-wide responses to sustainability issues. The department is raising the level of various climate-related initiatives (expanding adoption of renewable energy, acquiring EPDs (Environmental Product Declarations), exploring steel production using non-fossil fuel certificates, utilizing hydrogen gas combustion etc.)

– Governance

We have identified climate change as a priority issue (materiality) for management, and are setting KPIs and working to accomplish our targets. As the organization responsible for considering important business management-related matters, the Top Management Meeting and the Environmental Working Group discuss and consider response policies, business strategies, and the status of initiatives related to risks and opportunities that can severely impact business management, such as climate change. The Board of Directors performs its supervisory function by receiving subsequent reports and considering matters that are particularly important.

– Risk management

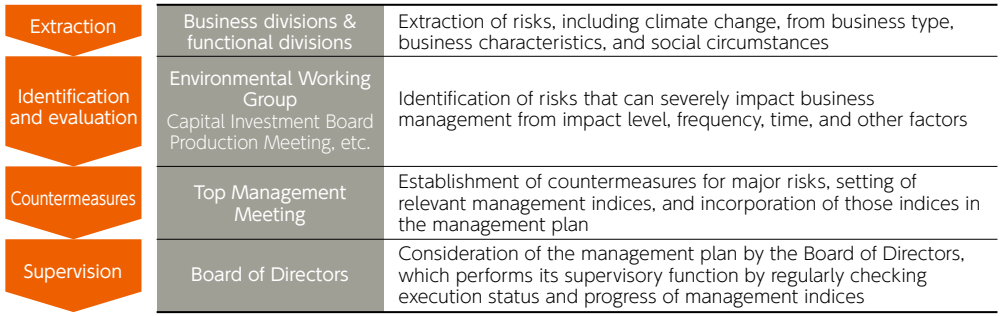
We follow the process on the right to identify, evaluate, and supervise all risk management. We also discuss and report climate change-related risks in the Environmental Working Group and Top Management Meeting to clarify impacts and our responses.

Main agenda items in FY2024

Meetings	Main agenda items
Board of Directors	· CO_2 emission reduction targets and plans until 2030 (discussion) · Actions for energy conservation and shifting to non-fossil energy (discussion) · CO_2 emissions results and progress of reduction plan (monthly)
Top Management Meeting	· Considering the introduction of non-fossil energy sources (discussion/report) · Considering the introduction of hydrogen gas (discussion/report) · Addressing climate change and water security (report) · CO_2 emissions results (monthly)
Environmental Working Group	· Progress of CN Promotion Subcommittee, Production Energy Conservation Subcommittee, and Process Reform Subcommittee

Organization chart

Risk management process



Strategy

While referencing reports of the International Energy Agency (IEA) and the Intergovernmental Panel on Climate Change (IPCC), we developed two scenarios (1.5°C scenario and 4°C scenario) of what society would look like in 2030 assuming a global average temperature rise of 1.5°C and 4°C by the end of this century (compared to pre-industrial levels), and analyzed the risks and opportunities.

Analysis results by scenario

Scenarios	Analysis results	Our response to scenario
1.5°C	· Demand for specialty steel and forged products for conventional internal combustion engines is falling as the automotive industry, a major customer base for us, becomes increasingly electrified. On the other hand, demand for specialty steel for electric vehicles, such as high strength gear steel, forged products, and electronic components, will increase. The autonomous driving market is also expected to expand · Demand for electric furnace steel material with low CO_2 emissions during manufacturing will increase	· Although falling demand for specialty steel and forged products may be a risk, there could be opportunities for new growth due to our core business strengths: specialty steel and parts for automobiles using electric furnaces, lead frames for power cards for electric vehicles, and our Global Magnetic Positioning System using magnetic markers.
4°C	· Increased risk of production stoppages and supply chain disruptions due to extreme weather events and natural disasters such as typhoons and heavy rains · Increased risk of reduced crop yields and quality loss due to extreme weather events and high temperatures	· We will continuously review our adaptation to natural disasters and our business continuity plan (BCP), and minimize damage by strengthening supply chains · Can expect to contribute to solving agricultural problems by expanding the use of PDMA, a next-generation fertilizer that supplies iron, and which is being promoted as a new business

Main risks and opportunities, and response policies (excerpt)

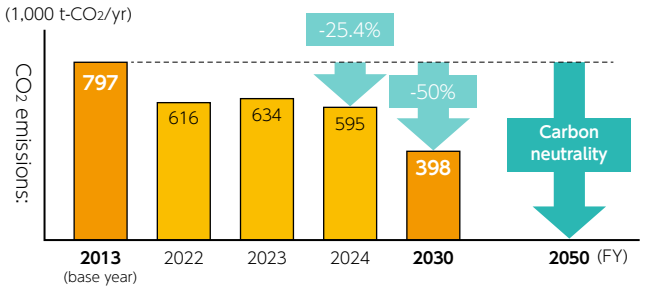
Scenarios	Climate-related matters	Impact on Aichi Steel		Response policies
1.5°C	Major transition in the automotive industry · Electrification · Autonomous driving	Risks Medium	· Reduced demand for specialty steel and parts (forged products, etc.) due to increased electrification	▶ Maintain business by capturing demand for specialty steel and forged products for electric vehicles
		Opportunities High	· Increased demand for materials and products for electric vehicles · Expansion of the autonomous driving market	▶ Develop high-performance, high-value-added materials and products (e.g., next-generation electric axles) ▶ Expand the use of magnetic positioning system (GMPS)
	Increased demand for decarbonization in society · Demand for electric furnace steel, etc.	Opportunities Medium	· Increased demand for electric furnace steel with low CO_2 emissions and outstanding recycling properties	▶ Develop high-quality, highly functional products that meet the diversifying needs of users, and build stable supply systems
	Adoption of carbon pricing · Carbon tax, etc.	Risks High	· Increased operating costs associated with use of fossil fuels · Increased operating costs due to rising renewable energy prices	▶ Consider development of energy-efficient production technologies and introduction of high-efficiency equipment ▶ Introduce and expand renewable energy with on-site power generation, etc.
	Restricted supply of raw materials and other resources	Risks Medium	· Supply shortages, reduced quality, and increased costs associated with increased demand for steel scrap · Instability of procurement of rare metals and rare earths	▶ Strengthen and expand circulation schemes in cooperation with customers, and establish low-grade scrap utilization technology ▶ Improve supply chain management, including procurement multi-sourcing
4°C	Natural disasters · Increased intensity and frequency, etc.	Risks Medium	· Damage to own facilities, and operation stoppages due to supply chain disruptions	▶ Minimize impacts through ongoing BCP measures and supply chain resilience

[Definition of impact]
High: Risks/opportunities with the potential to impact revenue by billions of yen or more
Medium: Risks/opportunities with the potential to impact revenue by hundreds of millions of yen
*Based on current company assumptions. Subject to change in the future.

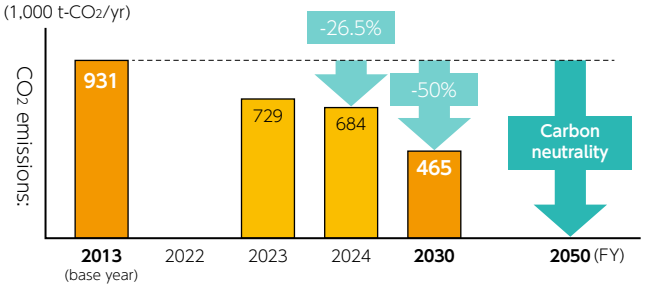
– Indicators and targets

We are contributing to the realization of a decarbonized society, with the goal of reducing CO_2 emissions from our business operations by 50% by FY2030 compared to FY2013 levels, and achieving carbon neutrality by FY2050. As well as promoting technological development in production processes and implementing energy-saving activities with full employee participation, we are taking active steps to reduce CO_2 emissions, such as introducing more solar power generation and other non-fossil energy sources. In FY2024, we achieved steady results, with a 25.4% reduction compared with FY2013 on a non-consolidated basis and a 26.5% reduction on a consolidated basis.

Non-consolidated

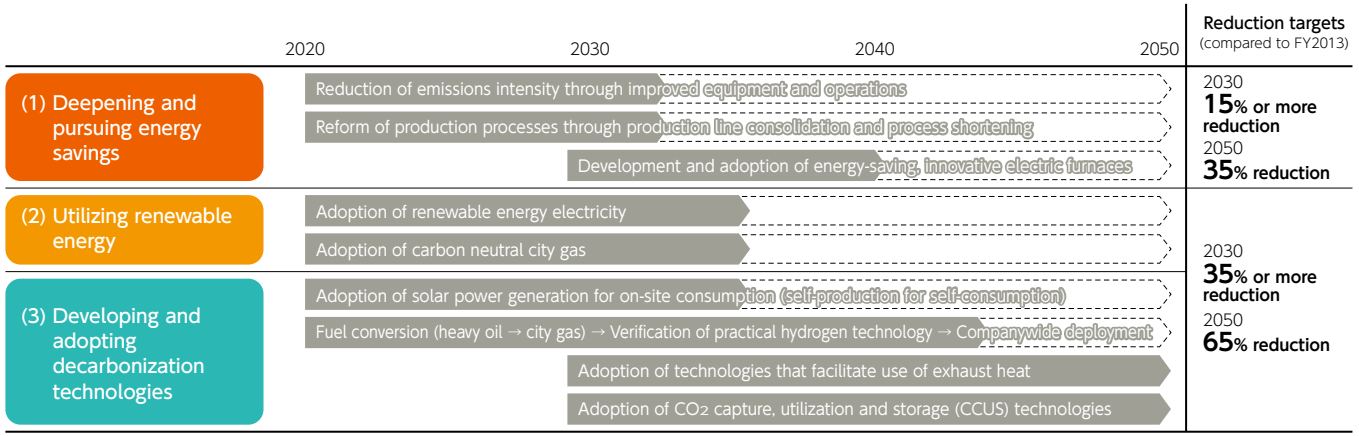


Consolidated



Roadmap to carbon neutrality by 2050

We have formulated and are systematically implementing a roadmap for achieving our targets. We have also detailed plant-specific roadmaps, and we are systematically conducting activities focused on (1) deepening and pursuing energy savings, (2) utilizing renewable energy, and (3) developing and adopting decarbonization technologies. In FY2024, we drew up a roadmap for our group's eight domestic subsidiaries to reduce GHG emissions. Going forward, we will engage in GHG reduction activities in our group, both domestically and internationally.



Specific initiatives

– Utilization of renewable energy

The large amounts of electricity used in Aichi Steel's specialty steel manufacturing processes have made it essential to shift to electricity derived from renewable energy. Therefore, in addition to thorough efforts to conserve energy and improve efficiency, we are actively promoting adoption of such electricity. In June 2025, Higashiura Plant launched operation of solar power generation using on-site PPA, which is expected to reduce annual CO_2 emissions by more than 700 tons at our three plants (Higashiura, Seki, and Gifu). In July 2025, we began procuring renewable energy (approximately 100 million kwh/year) through off-site PPAs, which is expected to reduce approximately 43 thousand tons/year of CO_2. Our plan is to continue to expand stably procurable renewable energy sources from a long-term perspective.

In addition to electricity, we are considering the conversion of energy used at our plants, such as city gas, to hydrogen through our participation in the Hydrogen Utilization Study Group in Chubu. Initially, at Kariya Plant, we have carried out modification work on the steel material heat treatment furnace to enable hydrogen combustion, and have started verification trials of hydrogen combustion technology. With the goal of developing hydrogen-based steel heat treatment technology, we will continue to conduct verification for hydrogen utilization, including hydrogen combustion trials and knowledge collection. As a member of the Hydrogen Utilization Study Group in Chubu, we also aim to utilize the knowledge gained from these verifications to expand the use of hydrogen at other plants.

CO_2 emissions by scope

[Scope 1, 2]

		CO_2 emissions (1,000 t-CO_2)			
		FY2013 (base year)	FY2022	FY2023	FY2024
Non-consolidated	Scope 1, Scope 2	257, 540	222, 394	224, 410	223, 372
	Total amount	797	616	634	595
Affiliated companies	Scope 1, Scope 2	23, 110	N/A	23, 72	22, 67
	Total amount	133	N/A	95	89
Consolidated total		931	N/A	729	684

Calculation method: Calculated based on "Standard Calorific Values and Carbon Emission Factors for Energy Resources" (Agency for Natural Resources and Energy) under the Act on Promotion of Global Warming Countermeasures (MOE), and the annual emission factors of contracted electricity providers

We have undergone independent third-party verification by SGS Japan Inc. to improve the reliability of our greenhouse gas emissions.

https://www.aichi-steel.co.jp/sustainability/esg/verification.pdf

[Scope 3] *Non-consolidated

	CO_2 emissions (1,000 t-CO_2)			Calculation methods
	FY2022	FY2023	FY2024	
1. Purchased products and services	793	901	845	Calculated by multiplying purchased quantities (weight or monetary value) of raw materials and supplies by emission intensity
2. Capital assets	37	50	46	Calculated by multiplying capital expenditure by emission intensity
3. Fuel and energy related activities not included in Scope 1 and 2	110	122	120	Calculated by multiplying consumption of purchased electricity and fuel by their emission intensities
4. Transportation and distribution (upstream)	37	36	37	Calculated by multiplying transportation distance reported under the Energy Conservation Act, and transportation mode and distance of Category 1 purchased goods, by emission intensity
5. Waste from operations	10	9	9	Calculated by multiplying waste amount by emission intensity
6. Business travel	0	0	0	Calculated by multiplying the payment amount by mode of transportation by emission intensity
7. Employee commuting	3	3	3	Calculated by multiplying reimbursement amount by mode of transportation by emission intensity
8. Leased assets (upstream)		0	0	Calculated by multiplying energy consumption of leased assets by emission intensity
9. Transportation and distribution (downstream)	—	—	—	Excluded - unspecified
10. Machining of sold products		357	327	Related to machining of intermediate products. Calculated by multiplying sales volume by emission intensity
11. Use of sold products	—	—	—	Excluded - products do not emit CO_2 directly during use
12. Disposal of sold products		9	9	Calculated by multiplying weight of waste and recyclable products by emission intensity
13. Leased assets (downstream)	0	0	0	Calculated by multiplying energy consumption of leased assets rented to other companies by emission intensity
14. Franchises	0	0	0	No franchisees
15. Investments	—	—	—	Excluded from calculation - not an investment company
Total	990	1,486	1,396	

*Figures in the above table are rounded to the nearest thousand tons, and 0 means less than 500 tons.
Emission intensity: "Emission Intensity Database for Calculating Greenhouse Gas Emissions of Organizations Throughout the Supply Chain (Ver. 3.5))" (April 2025, MOE) and "LCI Database IDEA version 3.5" (Advanced LCA Research Group, Research Institute of Science for Safety and Sustainability, National Institute of Advanced Industrial Science and Technology(AIST))

Collaboration with society

To help drive social change and achieve carbon neutrality by 2050, we are participating in various initiatives and obtaining relevant certifications. Through these activities, we seek to expand the use of products and services that contribute to decarbonization, and to maintain and strengthen competitiveness in the specialty steel industry in Japan.

– Acquisition of SuMPO EPD label

In April 2025, we acquired SuMPO EPD environmental product certification for our specialty steel bars and formed stainless steel products. An EPD is a certification system that objectively evaluates and reports the environmental impact of products, providing quantitative environmental information on the entire product life cycle, from resource extraction, manufacturing, and distribution to use and disposal or recycling. Obtaining this certification will enable us to disclose objective and transparent environmental information, supporting our customers' efforts to address environmental issues.

– Start of hydrogen combustion verification trials at Kariya Plant

In July 2024, we started hydrogen combustion technology verification trials at Kariya Plant as part of our efforts to carbon neutrality. In cooperation with Toho Gas Group and others, we modified our steel heat treatment furnace equipment that uses city gas to be compatible with hydrogen combustion. Our goal is to develop heat treatment technology using hydrogen, and we plan to use the knowledge gained for rollout to other plants.

Steel heat-treatment furnace for hydrogen combustion verification trials

Hydrogen storage facility

– Basic agreement on hydrogen utilization signed with the Central Japan Hydrogen and Ammonia Association

In October 2024, we signed a basic agreement to work toward carbon neutrality with the Central Japan Hydrogen and Ammonia Association, established by Aichi Prefecture, and 20 supporting companies. The aim is to establish a nationwide, pioneering large-scale hydrogen and ammonia supply chain, to be promoted regionally through public-private partnerships. By advancing the use of clean energy, including hydrogen, we will help realize a sustainable global environment.

For more information about the Central Japan Hydrogen and Ammonia Association, please visit
https://ch2a.jp

– Participation in the Aichi Environmental Innovation Consortium

In January 2025, we joined the Aichi Environmental Innovation Consortium, which is made up of 51 organizations including companies, universities, financial institutions, and government agencies. Based in Aichi, the consortium aims to create and implement environmental innovations to tackle challenges such as achieving carbon neutrality, transitioning to a circular economy, and realizing nature-positive outcomes. Aiming to achieve carbon neutrality as early as 2050, we will apply our knowledge gained from energy-saving activities, technology development, renewable energy use, and biodiversity conservation to help build a sustainable society.

For more information about the Aichi Environmental Innovation Consortium, please visit
https://env-innovation.pref.aichi.jp/consortium

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