

## Climate Change Initiatives

### Basic approach

Aichi Steel emits CO<sub>2</sub> 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 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<sub>2</sub> emissions across the entire supply chain.

### Information disclosure and support of TCFD recommendations

In 2021, we declared our support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). 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.

considering matters that are particularly important. We have also established an Environmental Working Group to execute strategies, set targets, and manage progress related to climate change. It comprises seven subcommittees, each with clear areas of responsibility, to conduct efficient and targeted activities. In FY2024, we established a new Sustainability Promotion Dept. to plan and promote our companywide response to sustainability issues for further bolstering our efforts.

#### Main agenda items in FY2023

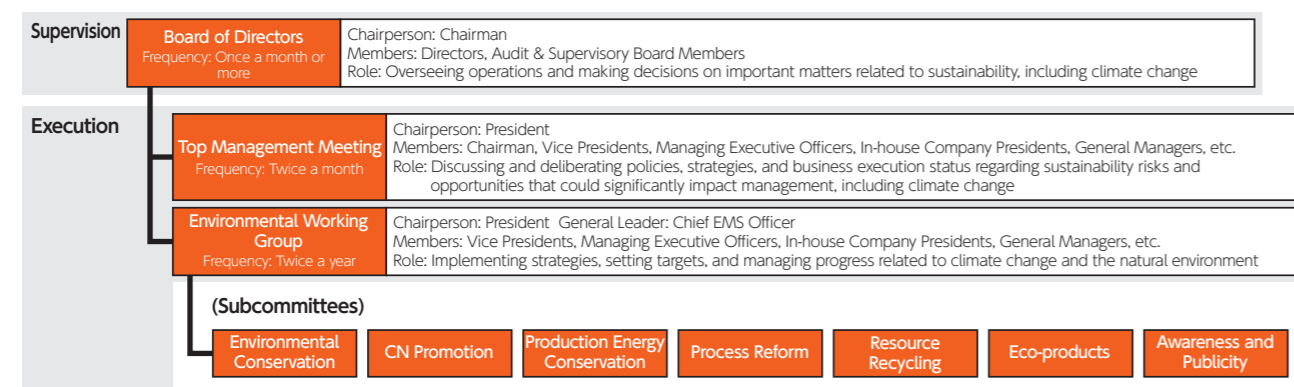
Meetings	Main agenda items
Board of Directors	<ul style="list-style-type: none"> <li>CO<sub>2</sub> emission reduction targets and plans for 2026 (discussion)</li> <li>Actions for energy conservation and shifting to non-fossil energy (discussion)</li> <li>CO<sub>2</sub> emissions results and progress of reduction plan (monthly)</li> </ul>
Top Management Meeting	<ul style="list-style-type: none"> <li>Future issues and actions for GX (discussion)</li> <li>Considering the introduction of non-fossil energy sources (discussion/report)</li> <li>Addressing climate change and water security (discussion)</li> <li>GX League activity results (report)</li> <li>CO<sub>2</sub> emissions results (monthly)</li> </ul>

### 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 discusses and considers 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

### Organization chart



### Risk management

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

### 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.

### Risk management process

Extraction	Business divisions & functional divisions	Extraction of risks, including climate change, from business type, business characteristics, and social circumstances
Identification and evaluation	Environmental Working Group Capital Investment Board Production Meeting, etc.	Identification of risks that can severely impact business management from impact level, frequency, time, and other factors
Countermeasures	Top Management Meeting	Establishment of countermeasures for major risks, setting of relevant management indices, and incorporation of those indices in the management plan
Supervision	Board of Directors	Consideration of the management plan by the Board of Directors, which performs its supervisory function by regularly checking execution status and progress of management indices

### Analysis results by scenario

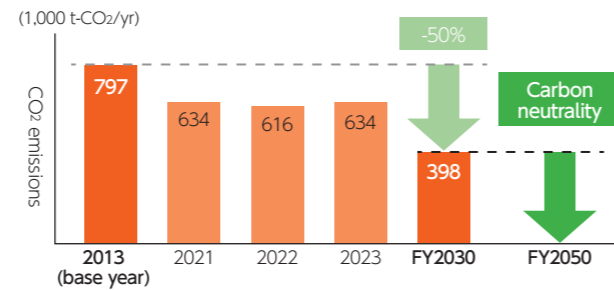
Scenarios	Analysis results	Our response to scenario
1.5°C	<ul style="list-style-type: none"> <li>Demand for specialty steel and forged products for conventional internal combustion engines is falling as the automotive industry, a major customer base for us, becomes increasingly electrified. On the other 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</li> <li>Demand for electric furnace steel material with low CO<sub>2</sub> emissions during manufacturing will increase</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> </ul>
4°C	<ul style="list-style-type: none"> <li>Increased risk of production stoppages and supply chain disruptions due to extreme weather events and natural disasters such as typhoons and heavy rains</li> <li>Increased risk of reduced crop yields and quality loss due to extreme weather events and high temperatures</li> </ul>	<ul style="list-style-type: none"> <li>We will continuously review our adaptation to natural disasters and our business continuity plan (BCP), and minimize damage by strengthening supply chains</li> <li>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</li> </ul>

### 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	<ul style="list-style-type: none"> <li>Reduced demand for specialty steel and parts (forged products, etc.) due to increased electrification</li> <li>Increased demand for materials and products for electric vehicles</li> <li>Expansion of the autonomous driving market</li> </ul>	<ul style="list-style-type: none"> <li>Maintain business by capturing demand for specialty steel and forged products for electrified vehicles</li> <li>Develop high-performance, high-value-added materials and products (e.g., next-generation electric axles)</li> <li>Expand the use of Global Magnetic Positioning System (GMPS)</li> </ul>
	Increased demand for decarbonization in society • Demand for electric furnace steel, etc.	<ul style="list-style-type: none"> <li>Increased demand for electric furnace steel with low CO<sub>2</sub> emissions and outstanding recycling properties</li> </ul>	<ul style="list-style-type: none"> <li>Develop high-quality, highly functional products that meet the diversifying needs of users, and build stable supply systems</li> </ul>
	Adoption of carbon pricing • Carbon tax, etc.	<ul style="list-style-type: none"> <li>Increased operating costs associated with use of fossil fuels</li> <li>Increased operating costs due to rising renewable energy prices</li> </ul>	<ul style="list-style-type: none"> <li>Consider development of energy-efficient production technologies and introduction of high-efficiency equipment</li> <li>Introduce and expand renewable energy with on-site power generation, etc.</li> </ul>
	Restricted supply of raw materials and other resources	<ul style="list-style-type: none"> <li>Supply shortages, reduced quality, and increased costs associated with increased demand for steel scrap</li> <li>Instability of procurement of rare metals and rare earths</li> </ul>	<ul style="list-style-type: none"> <li>Strengthen and expand circulation schemes in cooperation with customers, and establish of low-grade scrap utilization technology</li> <li>Improve supply chain management, including procurement multi-sourcing</li> </ul>
4°C	Natural disasters • Increased intensity and frequency, etc.	<ul style="list-style-type: none"> <li>Damage to own facilities, and operation stoppages due to supply chain disruptions</li> </ul>	<ul style="list-style-type: none"> <li>Minimize impacts through ongoing BCP measures and supply chain resilience</li> </ul>

Indicators and targets

We are contributing to the realization of a decarbonized society by targeting a 50% reduction in CO<sub>2</sub> emissions from our business operations in FY2030, compared to the FY 2013 level. 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<sub>2</sub> emissions, such as introducing more solar power generation and other non-fossil energy sources. In FY2023, we achieved steady results, with 20.5% less emissions than in FY2013.



Scope of calculations: Total of Scope 1 and 2 energy sources of Aichi Steel alone (Previous years' figures retroactively adjusted following a review of data collection targets, factors, etc.)  
 Conversion factor: Calculated based on the "Act on Rationalizing Energy Use and Shifting to Non-fossil Energy" (Agency for Natural Resources and Energy) and the emission coefficient of the contracted electric power company for the respective year

Roadmap to carbon neutrality by 2050

Aichi Steel has formulated and is systematically implementing a roadmap for achieving its 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 FY2023, we drew up a roadmap for GHG reduction for the Group's eight domestic subsidiaries and started activities to reduce GHG emissions.

	2020	2030	2040	2050	Reduction targets (compared to FY2013)
(1) Deepening and pursuing energy savings	Reduction of emissions intensity through improved equipment and operations				2030 <b>15% or more reduction</b> 2050 <b>35% reduction</b>
	Reform of production processes through production line consolidation and process shortening				
(2) Utilizing renewable energy	Adoption of renewable energy electricity				2030 <b>35% or more reduction</b> 2050 <b>65% reduction</b>
	Adoption of carbon neutral city gas				
(3) Developing and adopting decarbonization technologies	Adoption of solar power generation for on-site consumption (self-production for self-consumption)				2030 <b>35% or more reduction</b> 2050 <b>65% reduction</b>
	Fuel conversion (heavy oil → city gas) → Verification of practical hydrogen technology → Companywide deployment				
	Adoption of technologies that facilitate use of exhaust heat				
				Adoption of CO <sub>2</sub> capture, utilization and storage (CCUS) technologies	

Specific initiatives

Utilization of renewable energy

The large amounts of electricity used in Aichi Steel's specialty steel manufacturing processes have made it essential for the company 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 fiscal 2022, five of our seven plants (Seki Plant, Gifu Plant, Higashiura Plant, Electronic Components Plant, and Kariya Plant) effectively

achieved carbon neutrality through the purchase of FIT non-fossil certificates with tracking<sup>\*1</sup> and adoption of carbon neutral city gas<sup>\*2</sup>. In FY2023, two of these plants (Seki and Gifu) began solar power generation using on-site PPAs, reducing their annual CO<sub>2</sub> emissions by more than 700 tons.

In addition to electric power, we are contributing to the creation of a decarbonized society by exploring the use of various renewable energy sources, including studying the conversion from city gas and other energy sources

used at our plants to hydrogen through participation in the Chubu Area Hydrogen Utilization Council.

\*1 Certificates of the environmentally friendly value of electricity generated by non-fossil power sources (power sources that generate electricity without using fossil fuels such as coal and oil), which are subject to the FIT program established to promote the spread of renewable energy  
 \*2 City gas produced using carbon neutral LNG, in which CO<sub>2</sub> generated in the processes from mining to the combustion of natural gas is offset by CO<sub>2</sub> credits (carbon offsetting)

Collaboration with society

We participate in the GX League<sup>\*3</sup>, established in FY2023 at the initiative of the Ministry of Economy, Trade and Industry as a space for industry, government, and academia to work together toward achieving carbon neutrality and social change by 2050. A decarbonized society requires the widespread use of environmentally friendly green commercial products, which in turn requires a social system that recognizes

the environmental value of products. We participated in an initiative to develop such rules, called the working group for considering adding value to green products<sup>\*4</sup>. In December 2023, the working group formulated and published its Proposal for Value-Adding to Green Products. We have also been actively involved in the development of rules for the electric furnace industry.

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.

\*3 Established by the Ministry of Economy, Trade and Industry in March 2022 as a forum for a group of companies actively engaged in GX (Green Transformation) to discuss the transformation of the entire economic and social system and to put into practice new market creation.  
 \*4 One of the proposal-based working groups formed by companies that have expressed their support for the GX League. It is working to formulate recommendations about common rules for value creation in green products and low-carbon products.

CO<sub>2</sub> emissions by scope

Management indices	CO <sub>2</sub> emissions (1,000 t-CO <sub>2</sub> )				Calculation methods
	FY2013 (base year)	FY2021	FY2022	FY2023	
Scope 1	257	256	222	224	Refer to Scope 1 & 2 calculation method below
Scope 2	540	378	394	410	
Scope 1 + Scope 2 (Reduction rate compared to FY2013)	797	634	616	634 (20.5%)	
Emissions intensity of production (kg-CO <sub>2</sub> /t)	586.2	470.1	540.4	531.4 (9.3%)	
Scope 3					
1. Purchased goods and services	N/A	948	793	822	Calculated by multiplying purchased amounts of raw materials and other resources (weight or purchase price) by the emissions intensity
2. Capital goods	N/A	30	37	50	Calculated by multiplying capital expenditures by the emissions intensity
3. Fuel- and energy-related activities (not included in Scope 1 or 2)	N/A	126	110	114	Calculated by multiplying usage amounts of purchased electricity and fuel by the emissions intensity
4. Upstream transportation and distribution	N/A	43	37	36	Calculated by multiplying transportation distances, and transportation means and distances for Category 1 purchases, according to the Energy Saving Act report, by the emissions intensity
5. Waste generated in operations	N/A	11	10	10	Calculated by multiplying the emissions intensity for each type of waste
6. Business travel	N/A	0	0	1	Calculated by multiplying payment amounts for each travel means by the emissions intensity
7. Employee commuting	N/A	3	3	3	Calculated by multiplying payment amounts for each travel means by the emissions intensity

• Figures in the above table are rounded off to the nearest 1,000 tons, with 0 representing less than 500 tons  
 • Previous years' figures retroactively adjusted following a review of data collection targets, coefficients, etc.  
 <Scope of calculations> Scope 1 & 2: Energy sources of Aichi Steel alone; Scope 3: Applicable category for Aichi Steel alone  
 <Scope 1 & 2 calculation method> Calculated based on the "Act on Promotion of Global Warming Countermeasures" (Ministry of the Environment), "Table of Standard Calorific Values of Energy Resources and Carbon Emission Coefficients" (Agency for Natural Resources and Energy), and the emission coefficient of the contracted electric power company for the respective year  
 <Scope 3 emission intensity> "Emission Intensity Database for Calculating Greenhouse Gas Emissions and Other Emissions of an Organization through its Supply Chain (Ver 3.4)" (Ministry of the Environment, March 2024) and "LCI Database IDEA Version 2.3" (Advanced LCA Research Group at the Research Institute of Science for Safety and Sustainability of the National Institute of Advanced Industrial Science and Technology, and Sustainable Management Promotion Organization)



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>