

Endeavor for Carbon Neutrality
by 2050

Resource Circulation

Basic Approach to Environmental Protection,
and Environmental Promotion Framework

Environmental Management

Initiatives for Reducing
Environmental Impact

Biodiversity Conservation

EARTH

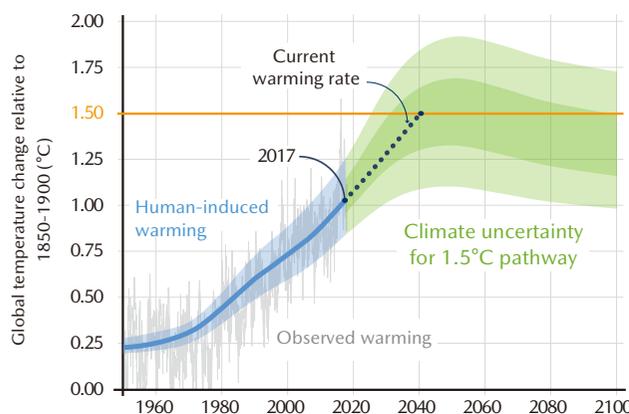
ENDEAVOR FOR CARBON
NEUTRALITY BY 2050

Recognizing Social Issues

The average global temperature has already risen by about 1.0°C from pre-industrial levels. The Special Report on Global Warming of 1.5°C published by the Intergovernmental Panel on Climate Change (IPCC) states that if global warming continues to increase at the current rate and the rise in temperature far exceeds 1.5°C, there will be a significant impact on nature and human activities. The Special Report therefore points out the need to achieve net zero global carbon emissions by around 2050 in order to limit the temperature rise to 1.5°C.

In response to the above forecast, 144 countries (including Japan)*1 have declared their intention to achieve carbon neutrality by 2050, with nations around the globe stepping up their measures to design carbon pricing and other mechanisms and invest in the development of energy technologies. In the industrial world, initiatives have been accelerated to change the energy and industrial structures, promote decarbonization throughout the supply chain based on a life cycle assessment (LCA), and encourage the effective use of decarbonization/low-carbonization technologies to reduce greenhouse gas emissions.

Average anthropogenic temperature increase since the industrialization



This is not the IPCC's official translation of the [FAQ 1.2, Figure 1] of the IPCC report. It has been compiled by Mazda Motor Corporation with attention to the most accurate reflection of the language used in the original text.
*Frequently Asked Questions", Coordinating Editors: Sarah Connors, Ros Pidcock, p8, https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_FAQ_High_Res.pdf

Mazda's Approach to Resolving Issues

Reasons for Addressing Social Issues

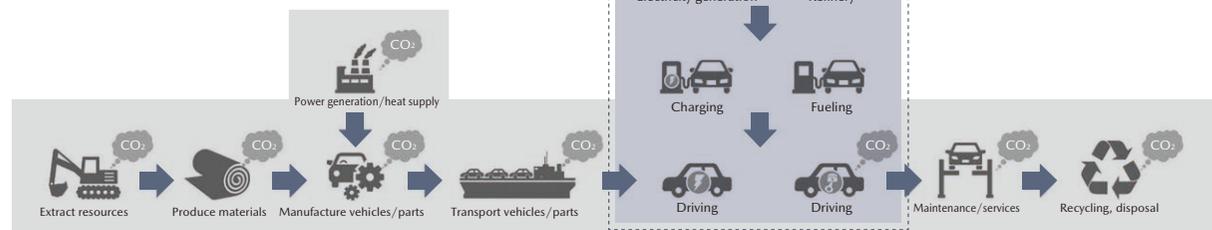
As for the trends regarding vehicles around 2030, Mazda predicts that the fuel economy of vehicles as a whole will be further improved though the combination of highly efficient combustion engines, electric device technologies, highly efficient transmission systems and reduced body weight. Mazda also foresees technological innovation accelerating in accordance with fuel diversification. In addition, electric vehicles will be selected more often in regions where electricity can be generated with renewable energy or other cleaner sources. Energy decarbonization/low-carbonization and related technologies will be further promoted, which will intensify society-wide efforts to reduce environmental impact toward the achievement of carbon neutrality by 2050.

As a proportion of Japan's total CO₂ emissions, the entire transport sector contributes approximately 20%, with the automotive industry accounting for about 90% of CO₂ emissions from the sector. Mazda understands that, as a company belonging to the automotive industry, it has a duty to reduce CO₂ emissions with the aim of curbing global warming. In order to preserve our beautiful planet for future generations, the Company will advance its initiatives toward the realization of a sustainable mobility society.

Mazda's perspective: "Well-to-Wheel" and "LCA"

Life-Cycle

Vehicle (product)-related cycle from resource extraction to disposal



Approach to Resolving Social Issues

Mazda announced that it will endeavor to achieve carbon neutrality by 2050.

To accomplish this objective, the Company recognizes the importance of reducing CO₂ emissions throughout a vehicle's life cycle. For this reason, Mazda considers it necessary to provide multiple solutions that enable the Company to offer various power unit choices that adapt to each region's energy sources and power generation methods, from both the perspective of well-to-wheel and the perspective of life cycle assessment (LCA). In manufacturing and logistics, the Mazda Group strives for energy value maximization and energy diversification, aiming to achieve reductions in the global total CO₂ emissions from plants/offices and logistics operations. The Group will continue these efforts, which must be made throughout the entire supply chain, with the cooperation of local governments and other industries.

For details of the activities carried out by the Carbon Neutrality Promotion Council refer to the following (Japanese only)

Well-to-Wheel

Fuel-related cycle from extraction to consumption during driving

*1 Compiled at the Ministry of Economy, Trade and Industry by counting countries participating in the Climate Ambition Alliance, countries that have expressed their commitment to achieving carbon neutral (CN) by 2050 by submitting long-term strategies to the United Nations, and countries that expressed their commitment to achieving CN by 2050 at the Climate Summit in April 2021, COP 26, and other events. (As of November 9, 2021)

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Commitment To Making Mazda Factories Worldwide Go Carbon Neutral by 2035

To achieve carbon neutrality throughout the entire supply chain by 2050, Mazda will endeavor to achieve carbon neutrality in its global plants by 2035. Toward the achievement of carbon neutrality, the Company will promote the following three initiatives in collaboration with partner companies. In addition, we will promote an optimum approach in overseas plants by employing initiatives in Japan.

Three Pillars to Achieve Carbon Neutrality

(1) Energy Conservation	In the manufacturing process of vehicles that emits a large amount of CO ₂ emissions, reduce the thermal energy through the development of low-temperature curing coating paints and improvement of energy conversion efficiency by optimizing processing technologies.
(2) Shift to Renewable Energies	Mazda recognizes the importance of not only making steps toward the company's carbon neutrality, but also that of contributing to the growth of the local economy. Therefore, we will participate proactively in efforts of the Carbon Neutral Electricity Promotion Subcommittee, which aims to expand the supply and demand of carbon neutral electricity in the Chugoku Region.
(3) Introduction of Carbon Neutral Fuels for In-house Transportation	Mazda working toward using carbon neutral fuel for in-house transportation in cooperation with the Hiroshima Council for Automotive Industry-Academia-Government Collaboration which is promoting the practical use of next-generation biofuels.

Road Map for CO₂ Emissions Reduction