

Carbon Neutrality Plan

ENEOS Group Carbon Neutrality Policy

To realize a carbon-neutral society, we will reduce our greenhouse gas emissions while pursuing **energy transition** and a **circular economy** to contribute to the **reduction of society's greenhouse gas emissions**.

Reduction of our greenhouse gas emissions

Preparation for future increases in carbon prices

- Aim for the realization of carbon neutrality in our emissions (Scope 1+2) by FY2040.
- Aim for the reduction of greenhouse gases by 46% (compared to FY2013) by FY2030.
- To achieve carbon neutrality, we will broadly engage in the reduction of greenhouse gas emissions, CCS (carbon dioxide capture and storage), and CO₂ removal (absorption by forests, etc.).

Policies on Initiatives	ENEOS Measures
Curbing greenhouse gas emissions	<ul style="list-style-type: none"> • Appropriate treatment of crude oil (according to demand) • Efficiency improvement of manufacturing and businesses (energy conservation, fuel switching, utilization of renewable energy, etc.) • Utilization of carbon credit
Artificial fixation of CO ₂	<ul style="list-style-type: none"> • CCS (carbon dioxide capture and storage) • New methods such as BECCS⁸ and DACCS⁹ utilizing CCS
Increase of natural absorption of CO ₂	<ul style="list-style-type: none"> • Absorption by forests (afforestation, forest management, etc.) • Other natural absorption methods (blue carbon and soil carbon fixation)

Contribution to the reduction of society's greenhouse gas emissions

Carbon neutrality as a pillar of future business

- Working in step with the government and other companies, aim for the realization of carbon neutrality, including Scope 3, by FY2050.
- In the energy area, we aim to halve CO₂ emissions per unit of energy supplied (CI¹⁰) by around FY2040 by promoting energy transition through expansion of renewable energy and early practical implementation of hydrogen and carbon-neutral fuel.
- In the materials and services area, we will pursue the development of a circular economy and the expansion of avoided emissions through conversion of raw material, etc.

Policies on Initiatives	ENEOS Measures
Contribution to the reduction of emissions in the energy area	<ul style="list-style-type: none"> • Pursuit of energy transition (hydrogen, carbon-neutral fuels, renewable energy, etc.)
Contribution to the reduction of emissions in the materials and services area	<ul style="list-style-type: none"> • Pursuit of circular economy (recycling, sharing, etc.) • Expansion of supply of products contributing to avoided emissions

⁸ Bio energy with carbon dioxide capture and storage ⁹ Direct air capture with carbon dioxide capture and storage ¹⁰ Carbon Intensity

Continuously supplying energy and materials required for the times through creation and innovation

The Group established its target for carbon neutrality in 2019, well ahead of other companies. Subsequently, based on trends in Japan and overseas, we formulated a new Carbon Neutrality Plan at the same time as the third Medium-Term Management Plan and announced it in May 2023.

This plan summarizes the Group's Long-Term Vision and the third Medium-Term Management Plan from the perspective of carbon neutrality, and sets policies, quantitative greenhouse gas reduction targets, specific measures, and roadmaps for 2025, 2030, and 2040. In addition to the important social responsibility of maintaining a stable supply of energy and materials, which is engrained in our corporate DNA, we will take on a new social responsibility of realizing a carbon-neutral society. We are committed to continuously fulfilling both of these responsibilities into the future.

The plan consists of two pillars; namely, reduction of our greenhouse gas emissions and contribution to the reduction of society's greenhouse gas emissions. As for the former, we aim to achieve carbon neutrality in terms of Scope 1+2 emissions by 2040 and minimize business costs (risks) in preparation for

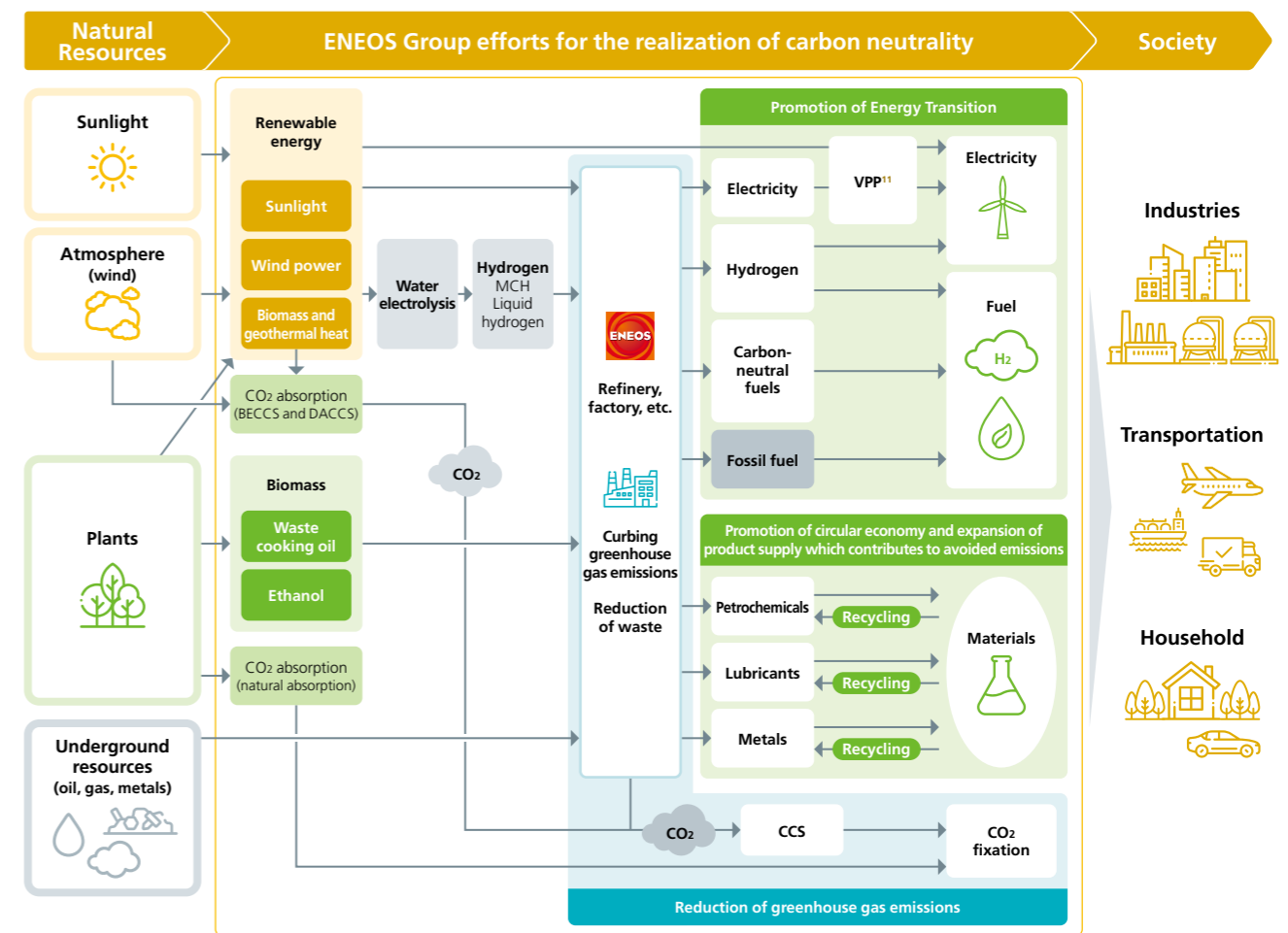
future carbon price increases. The latter clearly articulates the pillars (opportunities) of our future business, specifically, to work on energy transitions and a circular economy in the materials and services field, aiming for net zero Scope 3 emissions by 2050.

For over a century since the Meiji era, the Group has converted our planet's resources, such as oil, gas, and metals, into the energy and materials needed by customers, and has continued to provide a stable supply. Even if the energy and materials needed by customers change in the future, we will continue to contribute to the development of society and the creation of a vibrant future through creativity and innovation.

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Conceptual Diagram of Carbon Neutrality Plan



¹¹ Virtual Power Plant

Carbon Neutrality Plan

Reduction of Our Greenhouse Gas Emissions

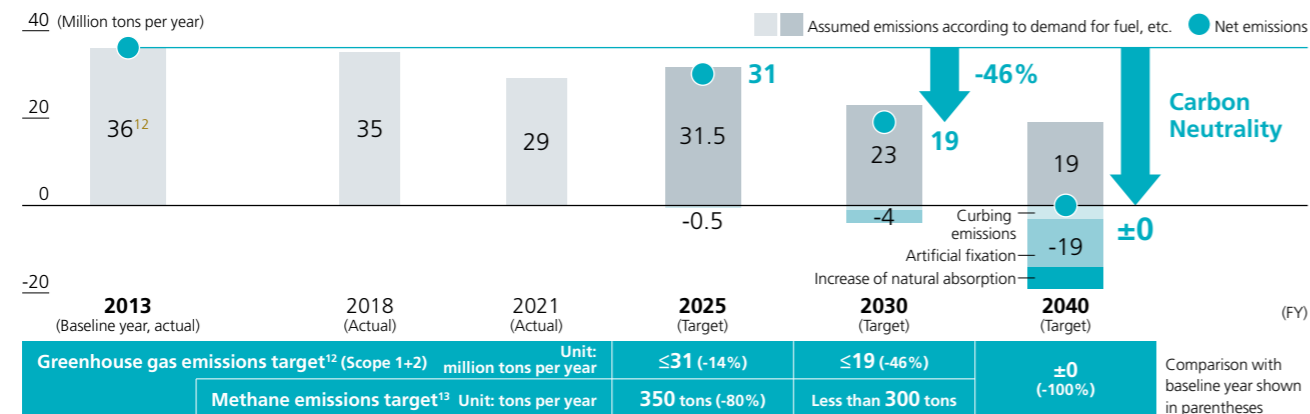
The Group has set a target to achieve carbon neutrality in terms of its own greenhouse gas emissions by fiscal 2040. This is based on the idea that, as a company that supplies energy, we should aim to achieve our emission reduction target 10 years ahead of the Japanese government's goal of

achieving carbon neutrality by 2050. At the same time, achieving our target will also prepare us for future carbon price increases.

→ For more information about our quantitative targets for each emissions reduction initiative, see page 61.

Roadmap for Reduction of ENEOS Group Greenhouse Gas Emissions

Greenhouse gas emissions Scope 1+2



¹² Greenhouse gas emissions in the base year (fiscal 2013): 36 million tons. Figure revised from the time of announcement in May 2022 (30 million tons) due to a change in the calculation method for domestic emissions from the standard under the Act on Promotion of Global Warming Countermeasures to the GX-ETS standard. There is no change to the target for transition-linked bonds (issued on June 15, 2022), but the greenhouse gas emission target for fiscal 2030 has been changed from 16 million tons to 19 million tons.

¹³ Oil and Natural Gas E&P. Methane emissions in base year (fiscal 2021): 1,600 tons

Contribution to the Reduction of Society's Greenhouse Gas Emissions

The Energy business of the Group has a significant impact on the reduction of greenhouse gases in society. To reach the goal of carbon neutrality by 2050, including for Scope 3 emissions, we will contribute to the reduction of emissions in society by working toward a circular economy in energy

transitions and the materials and services field, and pursue initiatives to make the business opportunities of carbon neutrality a pillar of our future business.

→ For more information about our initiatives for the pursuit of a circular economy, see page 63.

Roadmap for the Reduction of Greenhouse Gas Emissions of Society

		FY2025	FY2030	FY2040		
Energy field	Promote energy transition	CI (Carbon Intensity)	87 g-CO₂/MJ	81 g-CO₂/MJ	44 g-CO₂/MJ	
		CO ₂ -free hydrogen	Investment decision for commercialization	250 thousand tons	1–4 million tons	
		Carbon-neutral fuels	SAF	1st case investment decision	500–700 thousand KL	Domestic share: 50%
			Biofuel	—	Supply 10% mixing to high-octane gasoline ¹⁴	Supply 20% mixing to gasoline ¹⁴
			Synthetic fuel	Demonstration of 1 barrel/day-scale	Manufacture synthetic fuel 300 barrels/day	Manufacture synthetic fuel 10 thousand barrels/day or more
		Renewable energy	Renewable energy total power generation capacity	2 GW	3 GW	6–8 GW
CCS (for other businesses)	—	—	4–10 million tons			
Materials and services field	Promote circular economy	Petrochemicals	20 thousand ton scale Start of waste plastic liquefaction business	20%	35%	
		Lubricants	Recycling amount	Completion of demonstration	100 thousand KL	200 thousand KL
		Copper smelting	Recycling ratio	—	25%	50%
		Final disposal ratio of waste	—	Less than 1.0%		
		Expansion of products which contribute to avoided emissions	Avoided emissions (materials) ¹⁶	750 thousand tons-CO ₂ e	1,500 thousand tons-CO ₂ e	2,000 thousand tons-CO ₂ e

¹⁴ Biofuel + Synthetic fuel

¹⁵ Input ratio of green raw materials (waste-plastic-recycled oil, bionaphtha, etc.) against the production volume of products derived from naphtha cracker

¹⁶ Assuming about 20–50 million tons-CO₂e of avoided emissions (for fiscal 2040) by hydrogen and carbon-neutral fuel

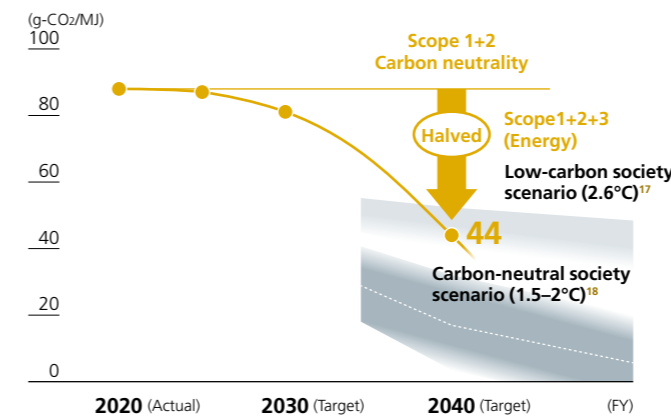
Pursuing Energy Transitions

We have set new carbon intensity (CI) targets to accurately express and put into practice the Group's goal of contributing to the reduction of greenhouse gas emissions in society.

CI is an indicator of CO₂ emissions per unit of energy

supply (Scope 1+2+3). CI cannot be reduced simply by reducing the supply of fossil fuels. CI is reduced by replacing fossil fuels with the supply of hydrogen, carbon-neutral fuels, renewable energy, and CCS, or in other words, by pursuing energy transitions. The Group aims to halve its CI by fiscal 2040.

Carbon Intensity (CI) Targets for the Energy Supplied by the ENEOS Group



CI (Carbon Intensity)

- Indicator of CO₂ emissions (g) (Scope 1+2+3) per unit of energy supply (MJ).
- Reduced due to supply of hydrogen, carbon-neutral fuels, renewable energy, etc.
- Does not include materials (petrochemicals, lubricants, asphalt, etc.)

¹⁷ ENEOS assumptions referring to IEA STEPS case
¹⁸ ENEOS assumptions referring to IEA APS/NZE case

Pursuing a Circular Economy

In order to achieve carbon neutrality, it is important to build a circular economy in addition to pursuing energy transitions. Products supplied to society generate CO₂ at each stage of their life cycle, from resource procurement to manufacture, sale, use, and disposal. By recycling

manufactured products without discarding them, CO₂ emissions can be curtailed. The Group will contribute to the realization of a circulating society through chemical recycling and material recycling, utilizing its strengths, including its technological capabilities and its assets and networks such as refineries and smelters.

Efforts for Circular Economy to Realize Circulating Society Independent from Conventional Resources

