

Scenario Analysis (Conducted in FY2023)

Among the climate risks and opportunities that we identified, while taking into account their impact on future business for the Company (financial impact, etc.) and their relevance to business strategy, we conducted scenario analysis based on two themes.

[Setting Conditions for Scenario Analysis (Citing Scenarios)]

In scenario analysis, we used the following scenarios from the World Energy Outlook 2022 (hereinafter, "WEO-2022"), which was issued by the International Energy Agency (IEA), and referred to various parameters when setting conditions and citing scenarios.

Scenario	2.5°C scenario (Scenario in which climate change progresses)	1.7°C scenario (Decarbonization scenario)	1.5°C scenario (Decarbonization scenario)
Cited scenario	IEA WEO 2022 "STEPS" and other documentation	IEA WEO 2022 "APS" (partly cited from WEO 2021 "SDS"), and other documentation	IEA WEO 2022 "NZE" and other documentation

STEPS: Stated Policies Scenario

APS: Announced Pledges Scenario

SDS: Sustainable Development Scenario

NZE: Net Zero Emissions by 2050 Scenario

[Theme [1] Impact of the EV Shift on Products for the Automotive Market]

The Company sells a wide range of products for the automotive market, and as shown in the following table, there is expected to be a fall in the demand for exhaust system parts with the ongoing shift toward BEVs and FCEVs, which are not fitted with internal combustion engines. With this in mind, we conducted analysis in order to gain an understanding of the impact of this EV shift.

Theme	[1] Impact of the EV Shift on Products for the Automotive Market
Products analyzed	Exhaust system parts for the automotive market
Analysis method	While referring to externally published information, including the IEA Global EV Data Explorer, we estimated global automobile sales in 2030 and 2050, and the market share of those sales for each powertrain. For each powertrain, we then set utilization rates for the Company's products and growth rates for the future scale of the market, and calculated the scope of future sales based on sales in the automotive market in FY2022.

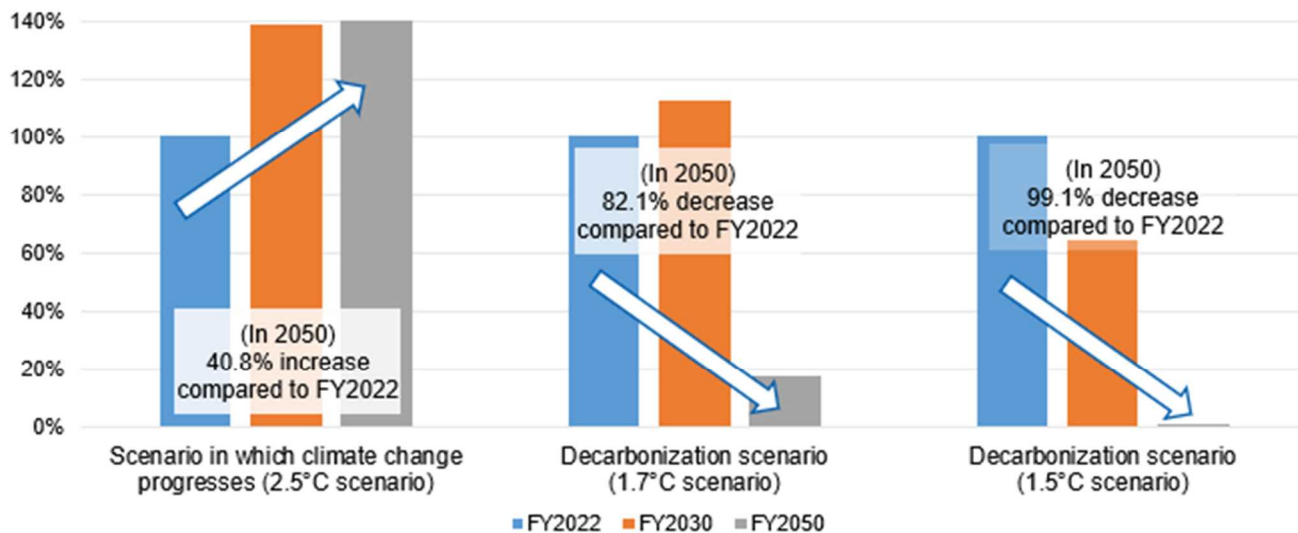
< Presence of internal combustion engine and demand for exhaust system parts for each powertrain >

	Definition (official name)	Overview	Internal combustion engine	Product demand
BEV	Battery Electric Vehicle	Uses electricity only, does not use gasoline (no engine).	×	×
FCEV	Fuel Cell Electric Vehicle	Uses hydrogen as fuel, fitted with fuel cells.	×	×
PHEV	Plug in Hybrid Electric Vehicle	Has an engine and a motor, can use an external power source.	○	○
HEV	Hybrid Electric Vehicle	Fitted with a gasoline engine and an electric motor.	○	○
ICE	Internal Combustion Engine	Uses a gasoline or diesel engine as a power source.	○	○

[Assessment Results]

With the scenario in which climate change progresses (2.5°C scenario), there is expected to be an increase in the number of HEVs and PHEVs and ongoing growth in sales of exhaust system parts for the automotive market (sales to increase 40% or more by 2050). On the other hand, with decarbonization scenarios (1.7°C and 1.5°C scenarios) in which the number of BEVs and FCEVs increases, the impact of the EV shift is expected to be significant, with a possible decline of 80% or more by 2050 in sales of exhaust system parts.

(Predicted sales values for automobile exhaust system parts with each scenario)



* Indicates predicted sales rate of increase/decrease with FY2022 sales set at a value of 100%.

[Response Strategy]

Even with decarbonization scenarios, by 2030, sales are expected to increase in the 1.7°C scenario, while the impact on sales is forecast to be limited to a reduction of 30% in the 1.5°C scenario. In the period of time until the shift to BEVs and FCEVs has progressed significantly, we will seek to expand the scope of sales of existing exhaust system products by further improving their performance and making them more lightweight. We will also open up new markets by developing and launching new products for BEVs and FCEVs.

[Theme [2] Impact of the Shift to Clean Energy on Products for the Petroleum Refining and Chemical Markets]

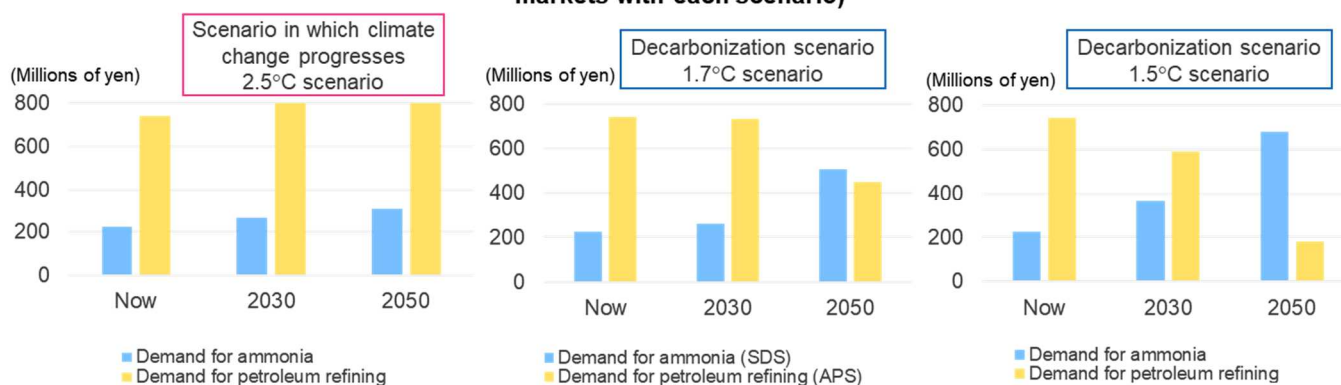
The future global demand for petroleum is likely to fall significantly in a decarbonized society, and net-zero emissions (NZE) may bring about a pronounced slump. As a response, we are focusing on the clean energy market, and in this context, bearing in mind progress in the development of energy use and conditions relating to the use of the Company's products, we have analyzed the coming decline of the petroleum refining market and expansion of the ammonia market.

Theme	[2] Impact of the Shift to Clean Energy on Products for the Petroleum Refining and Chemical Markets
Products analyzed	Mechanical seals, Gland packings, Gaskets
Analysis method	While referring to data for each scenario relating to future demand for nitrogen and its ultimate applications—as introduced in the IEA Ammonia Technology Roadmap—we set growth rates for the scale of the market in 2030 and 2050, and calculated the scope of future sales based on sales in ammonia-related markets in FY2022. At the same time, we forecast the future impact on sales in the relevant markets based on predictions in WEO 2022 regarding global demand for petroleum and sales in the Company's petroleum refining-related markets.

[Assessment Results]

With decarbonization scenarios (1.5°C and 1.7°C scenarios), while there is a significant decline in demand for petroleum refining, the demand for clean energy is expected to grow. Particularly in ammonia-related markets, whatever the scenario, be it the one in which climate change progresses (2.5°C scenario) or decarbonization scenarios (1.5°C and 1.7°C scenarios), demand for both production and the Company's products is forecast to increase.

(Expected impact of the shift to clean energy on sales of products for the petroleum refining and chemical markets with each scenario)



* Regarding the demand for ammonia, we have analyzed sales values for mechanical seals, which are affected most significantly.

[Response Strategy]

Demand in the petroleum refining market is forecast to decline in the future, but in the context of decarbonization, there has been a succession of plans to construct refineries for Sustainable Aviation Fuel (SAF), which is attracting attention as an alternative source of energy to fossil fuels. We are adding to our track record of adopting mechanical seals at demonstration plants, and we will actively generate sales opportunities from new construction projects in the future.

Furthermore, in the ammonia market, in which demand is expected to increase, we already have an extensive track record of supplying to plants that produce ammonia for fertilizer. Increasing demand for ammonia for new applications (electricity generation, marine fuels, etc.) in the future will generate an even greater increase in sales opportunities for the Company, so we will continue to improve performance yet further and to build relationships with business partners, with the aim of improving our resilience.