

Revision of medium-term targets for financed emissions (oil and gas sector)

Mizuho Financial Group, Inc. (President & Group CEO: Masahiro Kihara) has included responding to climate change as a key pillar of our business strategy, and we are harnessing our groupwide capabilities to contribute to achieving a low-carbon society (net zero GHG emissions) by 2050. Mizuho has set medium-term targets for financed emissions (to be reached by FY2030) for the electric power, oil and gas, coal mining (thermal coal), automotive, maritime transportation, steel, and real estate sectors. We hereby notify we have revised the medium-term targets for the oil and gas sector.

Our initial targets for the oil and gas sector were aimed at companies and projects whose primary business is in upstream production (including integrated oil and gas companies) (Scope 1 and 2 (development and mining) and Scope 3 category 11 (usage)). In the revision, companies and projects whose primary business is gas liquefaction and oil refining (Scope 1 and 2) are added to the target.

Sector	Metrics	Targeted business area	Targeted scope	Base year result	Medium-term target
Oil and gas	GHG emission intensity (gCO ₂ e/MJ)	Upstream production (including integrated oil and gas companies)	Scope 1, Scope 2	6.4 (before revision: 6.6)	4.1 (before revision: 4.2)
		<u>Gas liquefaction</u> (added)			
	Absolute GHG emissions (MtCO ₂)	Upstream production (including integrated oil and gas companies)	Scope 3 (category 11)	67.0 (before revision: 60.6)	-12% to -29% (compared to FY2019) (before revision: same as above)
<u>Oil refining</u> (added)		Scope 1, Scope 2			

Base year: FY2019; target year: FY2030

With respect to the value chain in the oil and gas sector, the addition of “gas liquefaction and oil refining” to the previously covered stages of “development and mining” and “usage”, which have particularly high GHG emissions percentages, will allow for coverage of nearly all major emissions sources in the value chain¹.

Mizuho is promoting an integrated approach to address climate change under the Net Zero Transition Plan², focusing on the 3 areas of “Contributions to transition in the real economy”, “Capturing business opportunities”, and “Appropriate risk identification and management”. Going forward, we will continue to mobilize our groupwide capabilities to meet the challenges of achieving a low-carbon society, working with a wide range of stakeholders including clients.

1: See “Coverage of value chains in sectors with targets” on p. 2 of the Attachment.

2: See pp.18–19 of our Climate & Nature-related Report 2024 for details of the Net Zero Transition Plan.

With regard to this report, see our news release dated June 19, 2024: “Publication of Climate & Nature-related Report 2024”:

https://www.mizuhogroup.com/news_release/20240619release_eng.html

- We have revised our targets for the oil and gas sector by adding gas liquefaction and oil refining to the initial targets for upstream production (exploration, development, and production).
- **Scope 1 and Scope 2 emissions** from companies and projects whose primary business is gas liquefaction and oil refining have been added to the existing (a) GHG emission intensity target and (b) Absolute GHG emissions target, respectively.

Metrics	(a) GHG emissions intensity (gCO _{2e} /MJ)	(b) Absolute GHG emissions (MtCO _{2e})
Targeted value chain • Targeted scope	<ul style="list-style-type: none"> • Direct emissions by companies/projects whose primary business is in upstream production (mining, development, production, and <u>liquefaction</u>: including integrated oil and gas companies; <u>Scope 1 and 2</u> (including methane leaks)) 	<ul style="list-style-type: none"> • Indirect emissions by companies/projects whose primary business is in upstream production (mining, development, and production; including integrated oil and gas companies; Scope 3 (category 11¹)) • Direct emissions by companies/projects whose primary business is <u>oil refining: Scope 1 and 2</u>
Targeted assets	Loans (total of corporate finance and project finance ²)	
Metric formula	$\sum \left[\text{GHG emission intensity of each company or project} \times \frac{\text{Loan balance to company or project}}{\text{Total loan balance across the target portfolio}} \right]$	$\sum \left[\text{GHG emissions of each company or project} \times \frac{\text{Loan balance to company or project}}{\text{Corporate value of the company or project}^3} \right]$
Target year	Base year: FY2019; Target year: FY2030	
Base year result	FY2019: 6.4 gCO _{2e} /MJ (before revision: 6.6 gCO _{2e} /MJ)	FY2019: 67.0 MtCO _{2e} (before revision: 60.6 MtCO _{2e})
Benchmark scenarios	IEA Net Zero Emissions by 2050 Scenario (NZE) ⁴ (1.5°C)	(1) IEA Net Zero Emissions by 2050 Scenario (NZE) ⁴ (1.5°C) (2) IEA Sustainable Development Scenario (SDS) ⁴ (well below 2°C)
Numerical targets	FY2030: 4.1 gCO_{2e}/MJ (compared to FY2019: -35%) (before revision: 4.2 gCO _{2e} /MJ)	FY2030: -12%(2) to -29%(1) (compared to FY2019) (before revision: Same as above)
Data sources	Wood Mackenzie database, information disclosed by each company, interviews with clients, etc.	

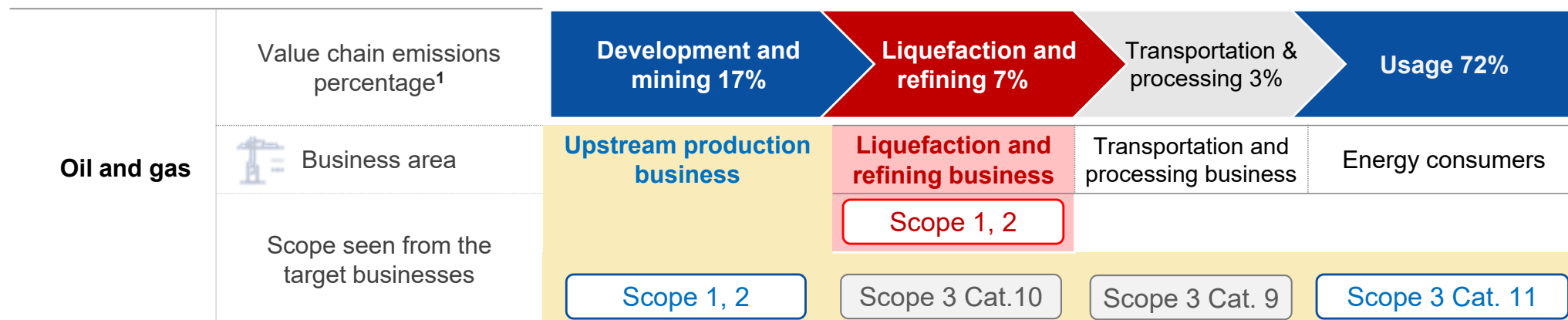
1: Emissions when sold products are used (combusted) 2: Aggregate for Mizuho Bank and Mizuho Trust & Banking 3: In line with the PCAF Standard, we adopt EVIC (sum of market capitalization of ordinary and preferred shares and book value of interest-bearing debt and non-controlling interests) for listed companies, and the corporate value (sum of total equity and interest-bearing debt) for private companies 4: IEA World Energy Outlook 2021

Financed emissions: Adding gas liquefaction and oil refining expands coverage of oil and gas sector targets

- The addition of “gas liquefaction and oil refining” to “development and mining” and “usage” allows for coverage of nearly all major emissions sources in the value chain of the oil and gas sector.
- More companies and projects are included in the targets of the oil and gas sector, which accounts for a significant percentage of Mizuho’s financed emissions (12%) following those of electric power and steel.

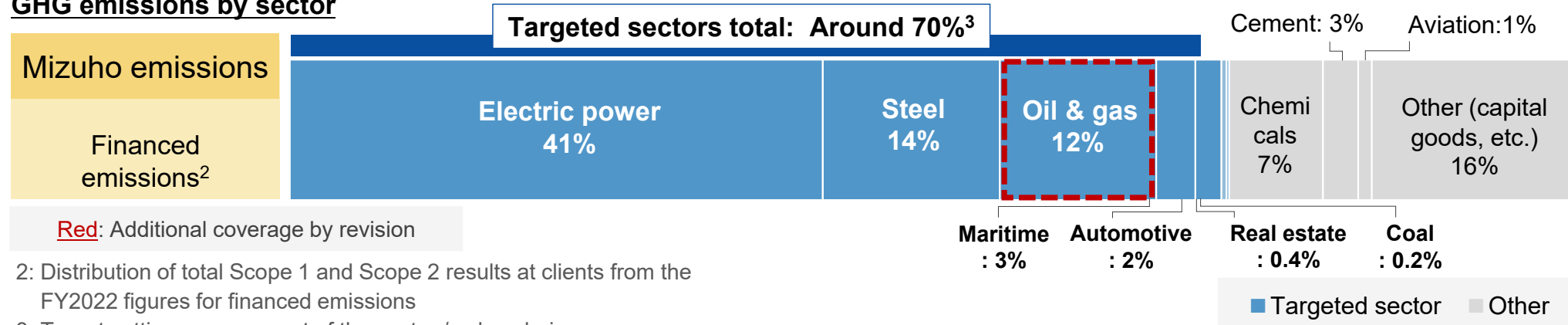
Coverage of value chains in sectors with targets

■ : Target coverage before revision ■ : Additional coverage after revision



1: (Source) Created by Mizuho FG based on the publications from IEA

GHG emissions by sector



2: Distribution of total Scope 1 and Scope 2 results at clients from the FY2022 figures for financed emissions

3: Target setting covers a part of the sector / value chain

(Examples: The target for oil and gas covers upstream production businesses (including integrated oil and gas companies and gas **liquefaction**) and **oil refining**. The target for coal covers thermal coal mining.)

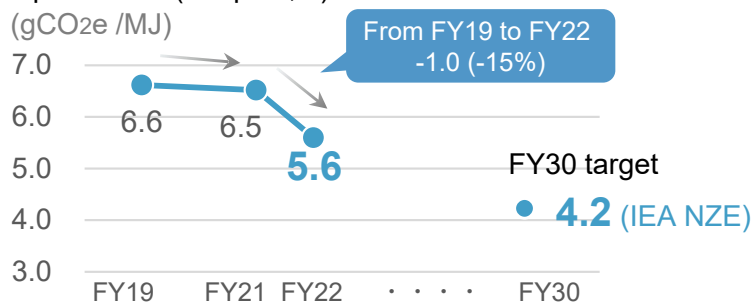
Financed emissions: Progress toward targets after adding gas liquefaction and oil refining (FY2021/22 results)

- Progress toward meeting the medium-term targets has not changed significantly by adding oil refining and gas liquefaction (when comparing the results for FY2021 and FY2022 before and after revision), and it remains steady

(Before revision) Progress toward medium-term target

(a) GHG emission intensity target

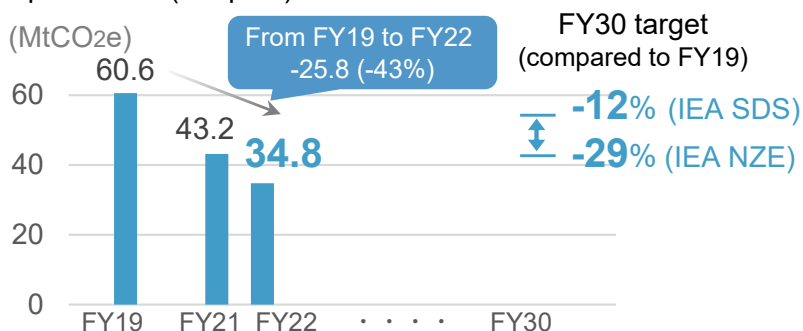
- Companies/projects whose primary business is in upstream production (Scope 1, 2)



Saw a year-on-year decline due to a decrease in loan balances for projects with high emission intensities and emission intensities of clients

(b) Absolute GHG emissions target

- Companies/projects whose primary business is in upstream production (Scope 3)

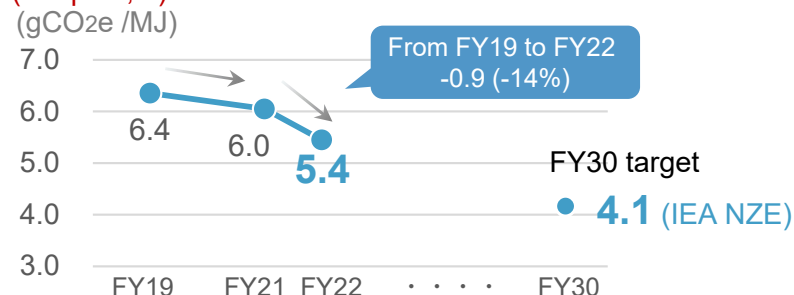


Down year on year due to the decreased loan balances and a decline in the attribution factor resulting from an increase in market capitalization; the results remain on pace to reach the FY30 target.

(After revision) Progress toward medium-term target

(a) GHG emission intensity target

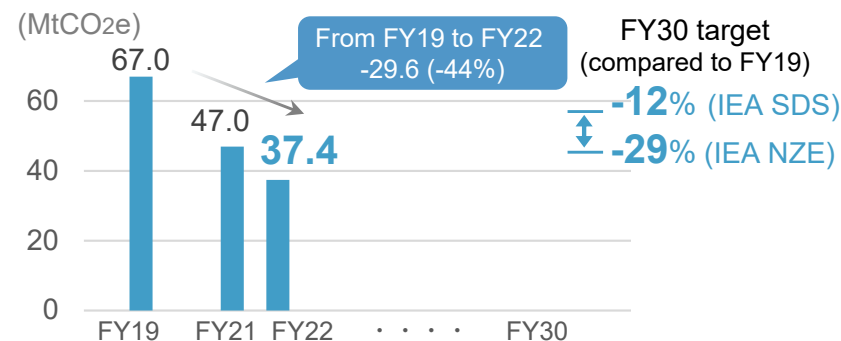
- Companies/projects whose primary business is in upstream production (Scope 1, 2)
- Companies/projects whose primary business is gas liquefaction (Scope 1, 2)



No significant change in progress after adding gas liquefaction

(b) Absolute GHG emissions target

- Companies/projects whose primary business is in upstream production (Scope 3)
- Companies/projects whose primary business is oil refining (Scope 1, 2)



Emissions increased slightly by adding oil refining but are still on track toward achieving the FY30 target

Financed emissions: Approach to the oil and gas sector medium-term targets

Approach to the targeted value chain and Scopes	<ul style="list-style-type: none">● We have targeted upstream production businesses (exploration, development, production, and gas liquefaction) and the oil refining business, considering the oil and gas sector's percentage of our portfolio and value chain implications for real-economy transition.● Over 70% of emissions in the oil and gas sector are Scope 3 (CO2 emissions from the combustion of sold products). For this reason, we have targeted Scope 3 emissions as well as Scope 1 and 2 emissions.● For the gas liquefaction business and oil refining business we target Scopes 1 and 2 (Scope 3 overlaps with that of upstream production businesses).
Approach to metrics	<ul style="list-style-type: none">● Decarbonization of the oil and gas sector entails reducing absolute GHG emissions by scaling back use of fossil fuels and reducing GHG emission intensities through having oil and gas companies improve their production processes.● Compared to Scope 1 and 2 emissions (direct), Scope 3 emissions (indirect) require different action on the part of oil and gas companies and also have a different level of impact. To raise the effectiveness of our target-setting initiatives, we set separate emission targets for Scope 1 and 2 and for Scope 3.● For Scope 1 and 2 emissions of upstream production businesses, we set a GHG emission intensity target that reflects clients' efforts for production process improvements.● For Scope 3 emissions of upstream production businesses and Scope 1 and 2 emissions of oil refining businesses, we set an absolute GHG emissions target that reflects clients' efforts for total emissions reduction, since reduction in production and business structural transformation are expected to become main drivers of emissions reduction.
Benchmark scenarios	<ul style="list-style-type: none">● We adopted the IEA NZE scenario to pursue efforts to limit the global temperature increase to 1.5°C.● However, because the IEA NZE scenario assumes a significant decline in demand for oil and gas towards 2030 and because initiatives must match the actual speed of transition in the real economy, we have set the target for Scope 3 emissions (absolute GHG emissions) to a range between the IEA NZE scenario and the IEA SDS scenario, which is a well-below 2°C scenario.
Initiatives to achieve the target	<ul style="list-style-type: none">● Reducing emissions from the oil and gas sector encompasses both initiatives to reduce emissions from oil and gas production and initiatives to decarbonize the demand side that uses oil and gas.● Through engagement, we verify the transition progress of clients and provide them with both financial and non-financial solutions. In this way, we support client initiatives toward achieving business structural transformation and production process improvements.● We are furthering our initiatives to encourage decarbonization on the demand side, alongside these initiatives.● In our initiatives, we take social impact into consideration, such as impact on the stable supply of energy.