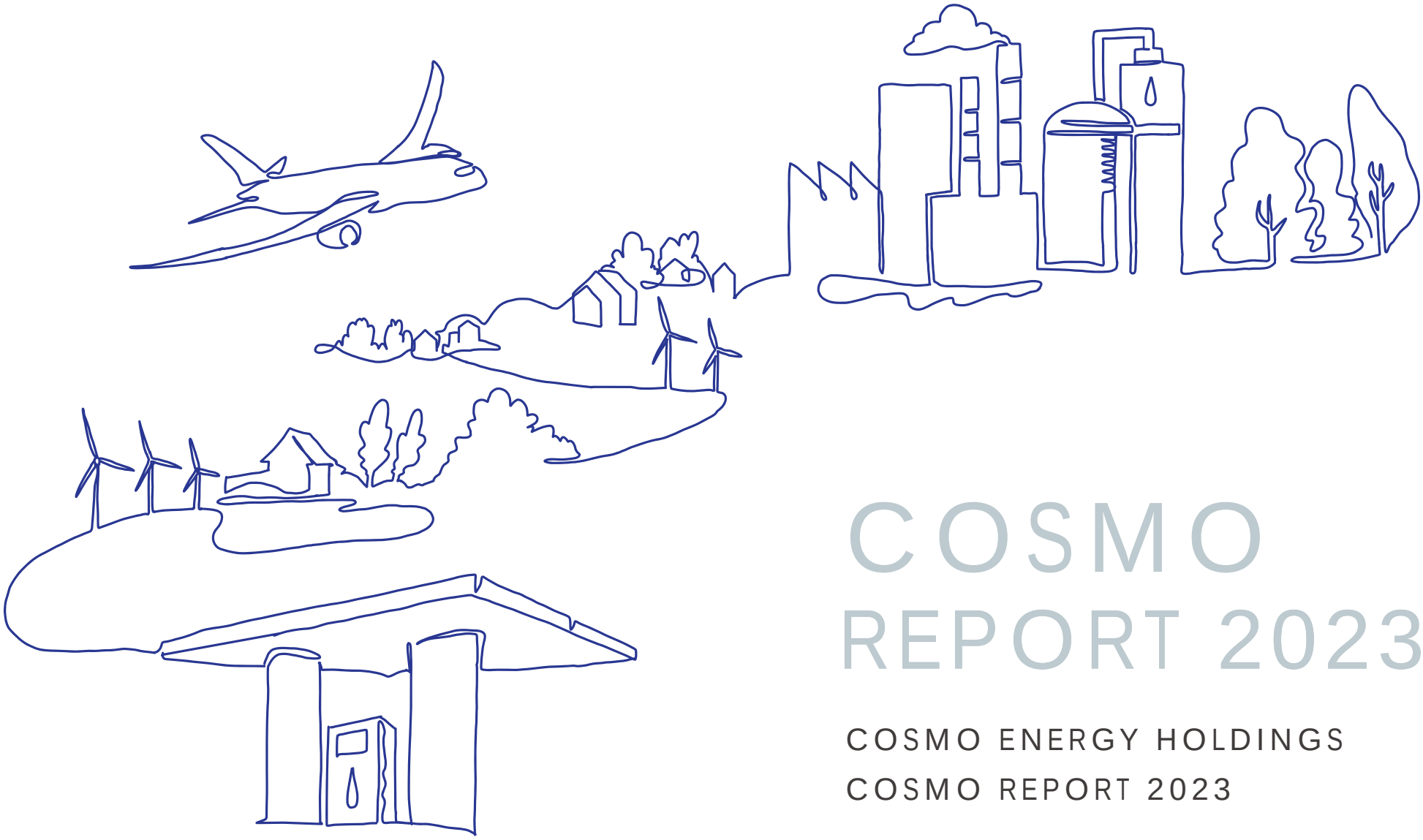
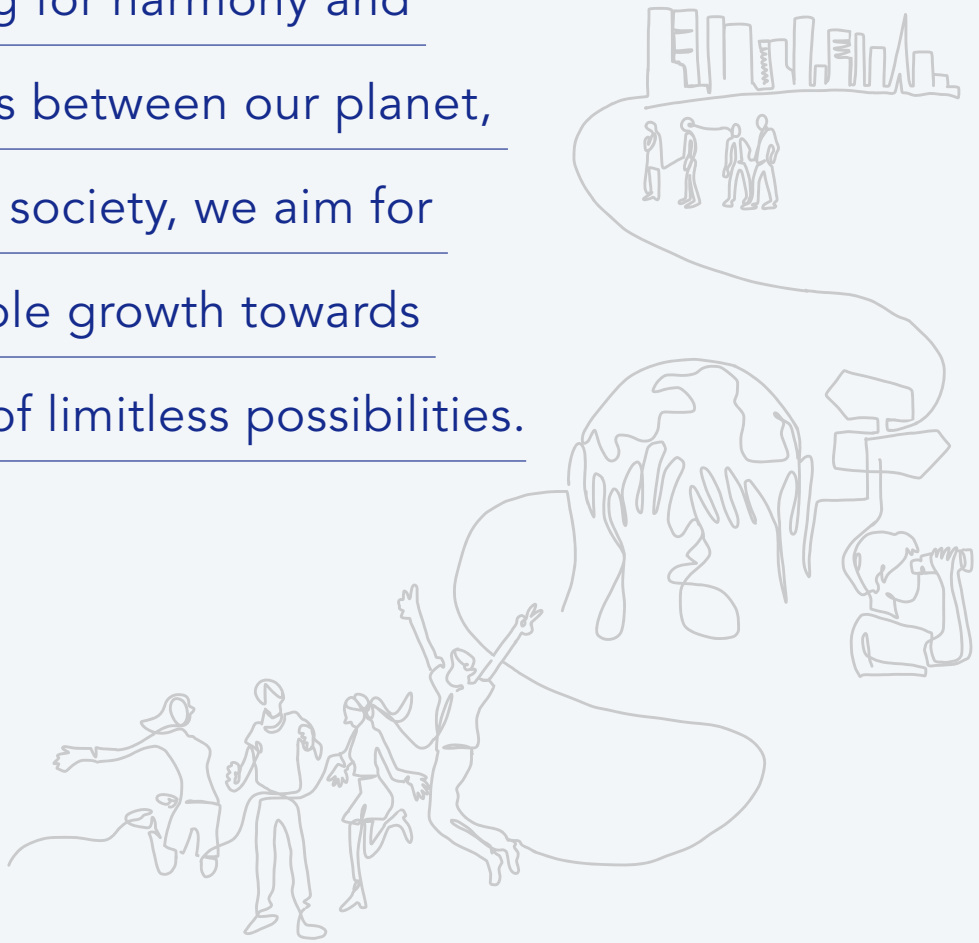


COSMO REPORT 2023

COSMO ENERGY HOLDINGS
COSMO REPORT 2023

Cosmo Energy Group Management Vision

In striving for harmony and symbiosis between our planet, man and society, we aim for sustainable growth towards a future of limitless possibilities.



Basic Concept of Sustainability

Harmony and Symbiosis

Harmony and Symbiosis with the Global Environment
Harmony and Symbiosis between Energy and Society
Harmony and Symbiosis between Companies and Society

Creating Future Values

Creating the Value of "Customer First"
Creating Value from the Diverse Ideas of the Individual
Creating Value by Expressing Collective Wisdom

Brand Statement

Filling up your hearts, too.

In any era, we wish to remain a company that fills up hearts of all of the people engaged with Cosmo.

Cosmo Energy Group's

Vision for the Future

Vision 2030

To create energy that shapes the future, energy that sustains society, and new forms of value

The Cosmo Energy Group seeks to realize its vision for the future by focusing on the following three pillars under Vision 2030.

Bolster the green electricity supply chain

(Build a high value-added supply chain that encompasses power generation, supply-demand adjustment, and sales)

Expand next-generation energy

(Supply SAF and develop hydrogen and other energy businesses)

Strengthen competitiveness of our *Oil* Business and pursue low carbonization

(Enhance competitiveness by digitizing refineries, etc., and shift to low-carbon operations through CCS/CCUS)



Oil & New
~Next Stage~

During the period of the Sixth Consolidated Medium-Term Management Plan, the Cosmo Energy Group successfully improved its financial position to a certain extent by increasing its profitability through the steady implementation of profit improvement initiatives. Under the Seventh Consolidated Medium-Term Management Plan, we will move to a new stage, under the slogan "Oil & New ~Next Stage~," and work to sustainably enhance enterprise value based on the following four basic policies.

1 Secure profitability
2 Expand *New* fields to drive growth
3 Realize three-pronged capital policy
4 Transform management foundation

COSMO REPORT 2023

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History of Value Creation

Thirty-seven years have passed since the establishment of Cosmo Oil and the start of the Cosmo Energy Group. Amid a variety of changes in the business environment, the Cosmo Energy Group remains committed to fulfilling its mission of providing a safe and stable energy supply and seeks to become a group that contributes to society.

Related to all businesses | Related to the Petroleum Business | Related to the Renewable Energy Business | Related to the Oil E&P Business | Related to the Petrochemical Business

1933~1985 Prologue to Cosmo Oil

Daikyo Oil and Maruzen Oil started operation

1986~2006 Birth of a new Cosmo Oil toward a new development stage

Became unwaveringly competitive despite rough waves of liberalization

2007~2014 Prospects for a new growth track

Damage and reconstruction from the Great East Japan Earthquake

2015~2023 New journey as the Cosmo Energy Group

Striving to grow based on the Group's established management foundation and contributing to a sustainable society

Corporate origin

- 1933 Maruzen Oil established
- 1939 Daikyo Oil established
- 1984 Cosmo Oil (Refining) established
- 1986 Cosmo Oil established
- 1989 Asian Oil merged into Cosmo Oil to form a four-refinery organization
- 2015 Cosmo Energy Holdings established

1933	Maruzen Oil established
1939	Daikyo Oil established
1943	Construction of Yokkaichi Refinery completed
1944	Construction of Matsuyama Refinery completed
1963	Construction of Chiba Refinery completed
1968	Construction of Sakai Refinery completed
1968	Abu Dhabi Oil established
1972	Construction of Sakaide Refinery completed
1984	Cosmo Oil (Refining) established
1986	Cosmo Oil established through the tripartite merger of Daikyo Oil, Maruzen Oil, and former Cosmo Oil (Refining)
1986	Abu Dhabi Office opened
1986	Cosmo service stations completely redesigned
1989	Asian Oil merged into Cosmo Oil to form a four-refinery organization
1997	Qatar offshore concession area acquired and Qatar Petroleum Development established
1997	"Filling up your hearts, too" adopted as corporate message
1997	IPP business entered
1999	Business alliance formed with Nippon Mitsubishi Oil (currently ENEOS)
2000	LNG business entered
2004	Wind power generation started in Sakata City
2005	Full-scale entrance made into the mixed-xylene business and CM Aroma established
2006	Construction of delayed coker unit started at the Sakai Refinery
2007	Business alliance formed with IPIC (currently MIC)
2007	Japanese language education program launched in the UAE
2008	Full-scale entrance made into the petrochemical business and Hyundai Cosmo Petrochemical established
2010	Shares of Eco Power acquired and full-scale entrance made into the wind power generation business
2010	Delayed coker unit started operation at the Sakai Refinery
2010	Started the automobile leasing business Cosmo Vehicle Lease*
2011	Fire and explosion accident at the Chiba Refinery due to the Great East Japan Earthquake
2011	Construction of mixed-xylene distillation unit completed at the Yokkaichi Refinery
2012	Abu Dhabi Oil's new concession agreement came into effect
2012	Operation resumed at the Chiba Refinery's No. 2 Crude Distillation Unit (CDU)
2013	Sakaide Refinery closed, resulting in a three-refinery organization
2013	Commercial operation of new paraxylene manufacturing unit started at Hyundai Cosmo Petrochemical
2014	Strategic comprehensive alliance entered into with CEPSA
2015	Business alliance entered into with Showa Shell (currently Idemitsu Kosan) in the Yokkaichi area
2015	Cosmo Energy Holdings established
2016	Maruzen Petrochemical became a consolidated subsidiary
2017	Production started at the Hail Oil Field
2018	Fuel conversion work at the Yokkaichi Kasumi Power Plant completed
2018	Sales of Cosmo Denki (Electricity) commenced
2018	Fiftieth anniversary of Abu Dhabi Oil celebrated
2019	Supply of fuel oil to Kygnus Sekiyu K.K. commenced
2019	Eco Power became a wholly owned subsidiary and was renamed Cosmo Eco Power
2020	Cosmo Energy Holdings declared its support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)
2021	Offshore Block 4 in the Emirate of Abu Dhabi acquired
2021	Alliance formed with Iberdrola Renewables Japan K.K. for the Aomori Northwest offshore wind power project
2021	Decision made to use electricity from virtually 100% renewable energy sources at all service stations directly operated by the Cosmo Energy Group
2021	Cosmo Zero Carbon Solution, a package of products including renewable energy and EVs, launched
2021	MoU regarding the consideration of collaboration in the field of decarbonization with Masdar
2021	Basic agreement regarding the consideration of collaboration in the hydrogen business concluded with Iwatani Corporation
2022	Roadmap for achieving net zero carbon emissions by 2050 was disclosed
2022	Joint studies on domestically produced SAF manufacturing technology utilizing Alcohol-to-Jet (ATJ) technology commenced with Mitsui & Co., Ltd.
2022	SAFFAIRE SKY ENERGY LLC established in preparation for Japan's first large-scale domestic production of SAF
2023	Commercial operation of offshore wind farms at Akita Port and Noshiro Port in Akita Prefecture commenced

*Currently Cosmo My Car Lease


Yokkaichi Refinery


Chiba Refinery


Sakai Refinery

ココロも満タンに
HEART-FULL
COSMO
"Filling up your hearts, too" corporate logo


Offshore oil collection base for oil development


Maruzen Petrochemical's Chiba Plant


Wind power generation

Message from the CEO



In a time of energy industry transformation, the Cosmo Energy Group will enhance enterprise value by positioning *people* as our focus.

Shigeru Yamada
Representative Director, Group CEO

Surviving in a period of transformation

People as the most critical factor during times of change

The energy supply and demand environment is currently exposed to significant change. Since 2021, factors such as the COVID-19 pandemic being brought under control and the emergence of geopolitical risk have put pressure on supply and demand for resources and energy. At the same time, the importance of energy security is being reexamined. Moreover, concerns about global warming and its effect on climate change and biodiversity will certainly propel decarbonization efforts on a global scale and usher in significant change to the energy industry. Given our duty to promote decarbonization as well as ensure a stable energy supply, the Cosmo Energy Group is tasked to take on the extremely difficult management challenges ahead.

Having been appointed Group CEO in April 2023, I have a renewed determination to overcome this period of transformation. I began my career in sales when I joined the Company (then Cosmo Oil Co., Ltd.) in 1988, shortly after it was formed through a merger. In the 35 years since, I have worked in supply, corporate planning, and other areas of the business.

One of my most memorable experiences was working in the supply division. As part of my job, I was required to monitor supply and demand for petroleum products and make decisions and adjustments in an instant while overseeing all aspects of oil supply, from crude oil imports to refining, sales, and distribution. I believe this experience is fundamental to how I make decisions that balance the big picture with a sense of speed.

Another event that I will never forget is the LPG tank explosion at the Chiba Refinery due to the 2011 Great East Japan Earthquake. The resulting fire caused great concern and inconvenience to many people. Based on the lessons learned from the fire, the Cosmo Energy Group maintains a steadfast commitment to investing management resources into safety, as well as to continuous diligent effort in the field.

In assuming the role of CEO, I firmly believe our *people* are a critical element for the Group. When a company undergoes a significant change, whether it be while recovering from a fire or going through a period of transformation — like the one we are currently experiencing — it faces many tough challenges. At such times, it is *people* who can encourage the company and its employees, and it is also *people* who bring about the innovations that will shape the future.

I feel that our *people* will be the decisive element of the Cosmo Energy Group's ability to meet and survive the challenges facing the energy industry during this period of great change.

Significantly improved profitability on the back of our competence in safe and stable operations

The Cosmo Energy Group has traversed difficult times in our financial condition and business performance since inception, however, we were able to significantly improve our profitability through initiatives implemented under The Sixth Consolidated Medium-Term Management Plan (hereafter, "the Sixth MTMP"). As a result, our financial condition also improved, and we achieved a net worth capable of withstanding changes in the market condition and a net debt-to-equity ratio in the 1 to 1.5 times range.

One of the factors behind our improvement in profitability was our ability to achieve continuously safe and stable operation of our refineries which enabled stable energy supply and sales. Since the fire, we have worked to step up safety in tangible areas of our business such as by investing in facilities and equipment together with intangible areas such as operational systems and human resource development.

In addition to these efforts at the management level, the diligent efforts and contribution of each and every onsite employee fundamentally underpins our improvement in profitability. While we cannot achieve safe and stable operations overnight, I am confident that the lessons learned from the fire, held close over time, are now a major strength of the Cosmo Energy Group. We will not disregard these lessons and continue to hone this strength going forward.

A new medium-term management plan to enhance enterprise value

— Ideas represented in Vision 2030 and The Seventh Consolidated Medium-Term Management Plan —

Ensuring the sustainable enhancement of enterprise value through the Seventh Consolidated Management Plan

In 2001, we established the Cosmo Energy Group Management Vision: *In striving for harmony and symbiosis between our planet, man and society, we aim for sustainable*

growth towards a future of limitless possibilities. Although more than 20 years have passed, this vision remains unchanged. However, in this period of energy transformation, we understand the expectation for us to develop a medium to long-term vision to connect our medium-term management plan and our Group Management Vision. To take us through to 2030, we have therefore newly formulated Vision 2030: *To create energy that shapes the future, energy that sustains society, and new forms of value.*

Energy that shapes the future is renewable energy, next-generation energy, and other sources of energy essential for transitioning to a decarbonized society. Meanwhile, energy that sustains society means the efficient use of conventional oil resources for a stable energy supply. This new vision incorporates our desire to create new forms of value with a two-wheeled approach to the types of energy required.

In Vision 2030, we have defined the Cosmo Energy Group's mission as providing a stable supply of low-carbon, low-cost energy, while fully recognizing the growing societal demand for decarbonization and factoring in the distortions and adverse effects of rapid energy conversion.

Also, while our top priority was always to address the long-term challenge of improving our financial condition until the Sixth MTMP, the focus of The Seventh Consolidated Medium-Term Management Plan (hereafter, "the Seventh MTMP") is the enhancement of enterprise value based on the results achieved under the Sixth MTMP.

Vision 2030

To create energy that shapes the future, energy that sustains society, and new forms of value



Bolster green electricity supply chain

Build a high value-added supply chain that encompasses power generation, supply-demand adjustment, and sales

Expand next-generation energy

Supply SAF and develop hydrogen and other energy businesses

Strengthen competitiveness of Oil Business and pursue low carbonization

Enhance competitiveness by digitizing refineries, etc., and shift to low-carbon operations through CCS/CCUS

Although companies listed on the Tokyo Stock Exchange are required to disclose their enterprise value enhancement initiatives and progress if their price-to-book value ratio (PBR) is consistently below 1.0 times, we were ahead of the curve in presenting our approach to enterprise value.

One main pillar of Vision 2030 is to bolster the green electricity supply chain. While we have been expanding our Renewable Energy Business with a focus on wind power generation for some time, we will strengthen and create a single seamless supply chain which is not limited to power generation and actually goes beyond this to include power adjustment, storage, and subsequent sales.

The Cosmo Energy Group has played a part in stable energy supply in Japan for many years. Given the global trend toward decarbonization and our ongoing commitment to fulfilling our responsibilities as an energy supplier, bolstering the green electricity supply chain is a role I believe we must play, and we already have many businesses that can help us in this effort.

In terms of renewable energy generation, we are Japan's third-largest producer of wind power, and we will continue to expand our business steadily in line with our plan. In offshore wind power, we see the next two to three years as critical years for us, despite fierce market competition. In the area of power supply-demand adjustment and storage, while the supply of renewable energy is increasing throughout Japan, we are beginning to see a situation where producers have no choice but to let the power that they have laboriously generated go to waste due to a mismatch between supply and demand. To solve this, there is a need for a function to balance power supply and demand and store the generated renewable energy. This function is crucial to prudent energy

use, and we plan to begin proof-of-concept testing in our energy storage business in FY2023. In the area of green electricity sales, we have a track record of sales through Group companies. In the future, we will work to develop a variety of products such as selling solutions that include energy management and providing them together with electric vehicle (EV) leasing and sales.

By creating synergies through the linking of such businesses and expertise, I believe we can monetize the green electricity business through not only power generation, but also throughout the entire supply chain. To achieve this, we plan to make strategic investments totaling ¥300.0 billion by 2030.

As for the second pillar, the expansion of next-generation energy, we will pioneer mass-production of Japan's first domestically produced SAF and enter the hydrogen supply chain. In terms of SAF, we have established a joint venture, SAFFAIRE SKY ENERGY LLC, with JGC Holdings and Revo International Inc. to mass-produce SAF made from waste cooking oil. In addition, we have begun joint studies with Mitsui & Co., Ltd. on the production and supply of SAF made from ethanol using the technology of Lanza Jet Inc., a U.S. company in which Mitsui & Co. holds a stake.

In the hydrogen supply chain, we established a joint venture with Iwatani Corporation for the hydrogen station business in February of this year. We plan to open a hydrogen station for trucks in FY2024. For both initiatives in our second pillar, we plan to make a strategic investment of ¥100.0 billion by 2030.

The third pillar is to strengthen competitiveness and pursue low-carbonization of our *Oil* businesses. While the trend toward decarbonization will continue without question, the timeframe over which it occurs will be critical. Even with the growing popularity of EVs and the like, petroleum products will continue to account for a large share of energy demand until around 2030. Until then, we must fulfill our responsibility to ensure their stable supply.

Globally, oil is still an essential energy resource. The Cosmo Energy Group's current concession areas are limited to low-risk exploration blocks, but I believe it is necessary to continue this business to some extent to fulfill our responsibility to provide a stable energy supply. In addition, as mentioned earlier, the safe and stable operation of our refineries contributed significantly to improving our profitability under the Sixth MTMP. In the future, we will achieve greater efficiency by improving refinery operating rates through measures such as digital transformation (DX).

At the same time, we will also focus on achieving low-carbon operations. We will convert to alternative fuels in our Petroleum Refining and Petrochemical businesses as well as leverage our strong relationship with the Emirate of Abu Dhabi to work with the Abu Dhabi National Oil Company on decarbonization, including carbon capture and storage (CCS) and carbon capture, utilization, and storage (CCUS).

The capital policy that meets expectations and transformation of our management foundation

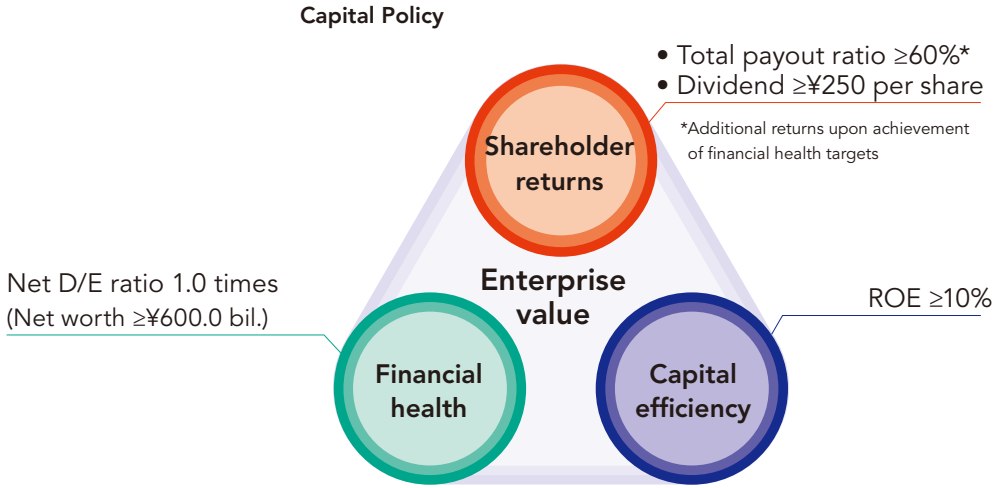
To date, the Cosmo Energy Group has prioritized improving our financial condition, with some improvement achieved during the period of the Sixth MTMP. During management discussions on how to enhance enterprise value, which is the theme of the Seventh MTMP, we concluded that it is necessary to present a balanced capital policy while



increasing profitability and raising growth expectations, and thus announced our capital policy for the first time as part of our overarching plan.

Our new approach to capital policy is to enhance enterprise value by achieving growth in three areas — shareholder returns, financial health, and capital efficiency — without deficiency or bias.

As part of shareholder returns, we have set a cumulative total payout ratio of 60% over three years. This figure was set based on our recognition of capital market expectations, while ensuring a balance between the investments necessary to implement our growth strategy and financial health based on profitability. In terms of dividends, we will pay a stable dividend of at least ¥250 per share. Factoring in the business environment during the period of the Seventh MTMP, we are committed to a dividend level that is achievable even if there is a certain degree of change in the external environment, provided we have the capability to do so.



With respect to financial health, we have set a target net debt-to-equity ratio of 1.0 times and a target net worth of ¥600.0 billion or more following scrutiny of our financial condition from multiple viewpoints. Specifically, from the perspective of responding to risk, we benchmarked similar domestic and overseas companies in each segment and calculated the risks associated with each asset and the capital necessary to cover these risks by analyzing each company's past performance and financial condition. We also considered the required capital efficiency and level of capital needed to provide flexible financing even as the trend toward decarbonization accelerates in the future.

During the period of the Seventh MTMP, we will increase investment in the development of *New* fields, while aiming to achieve a stable return on equity (ROE) of 10% or more in terms of capital efficiency.

In our discussions with shareholders and investors regarding our capital policy, we received a certain amount of recognition for disclosing not only numerical targets but also the thinking behind them as part of our commitment under our medium-term management plan. We will continue to meet their expectations by delivering on our promises outlined in the policy.

Three transformations to innovate our management foundation under the Seventh MTMP

When it comes to human resources, the most important asset for the Cosmo Energy Group, we will undertake talent development with a dual focus on *motivation and autonomy* and *capabilities and diversity*. Multiple results of an employee survey showed a favorable view of workplace relationships and a high regard for the good character and humanity of co-workers. This leads me to believe that our great teamwork is one of the Group's strengths. That said, it is also essential during periods of transformation to have some friction in the team caused by friendly competition and for each team member to have a strong desire for personal growth. While the Group continues to establish systems and training programs on the organizational side, we also encourage individual employees to develop their skills independently as this will ultimately produce greater engagement with the company.

DX is an area with significant room for expansion. To cite a typical example, we hope to use purchase data from the Car Life Square App, which is provided to customers of COSMO-branded service stations, and operation and maintenance data from refineries not only to improve existing services and businesses but to create new business opportunities as well. To promote the use of such data, we plan to cultivate 900 core digital personnel* while continuing to raise overall IT literacy of employees.

Regarding green transformation (GX), we aim to achieve net zero carbon emissions, including Scope 3, in 2050. Although our current emissions reductions are mainly attributable to our wind power generation business, we will also tackle new areas such as CCS/CCUS. In addition, as the Petrochemical Business accounts for a significant proportion of the Group's total CO_2 emissions, we will work with external parties to reduce our carbon footprint such as by considering converting equipment and plants to run on ammonia.

As a cornerstone of sustainable management, the Cosmo Energy Group has also proactively implemented governance reform. From the perspective of board transparency, currently four out of our nine directors are independent outside directors. Also, from the standpoint of diversity, one third of the directors are women, with one female director serving as an executive

officer. As a result of such reform, the Board of Director meetings have become a forum for very dynamic discussion.

On a related note, we review our directors' skills matrix each year. During this review we discuss which skills should be added or deleted, as well as assess any excesses or deficiencies that might be present at the executive director level in the entire Group. It is through this process that we can keep a close eye on the pipeline of future candidates for leadership roles.

*Human resources who will lead data utilization (data scientists, data engineers, and data strategists)

Facilitating the Group's transformation in anticipation of a new era

Creating new growth drivers that are not just an extension of the past

As I mentioned earlier, the energy industry is undergoing a significant transformation in response to the global trend toward decarbonization. The Cosmo Energy Group must also fulfill our responsibility to provide a stable supply in our *Oil* businesses while meeting the expectations for us to expand our presence in *New* fields. I am also aware that in order to realize the theme of the Seventh MTMP, which is to enhance enterprise value, we must ensure the profitability of our *Oil* businesses and to demonstrate the growth potential of *New* fields, including actual results, while implementing our newly formulated capital policy. As Group CEO, I will personally take the lead in promoting these efforts.

Having inherited the tangible and intangible assets built by my predecessors, I believe that my greatest mission as Group CEO is to create new growth drivers for the Cosmo Energy Group that are not merely an extension of the past and to achieve sustainable growth in anticipation of a new era.

Under the Seventh MTMP, we will do our utmost to enhance the value we provide and prove ourselves worthy of our stakeholders' trust. I hope you will join us in looking forward to the future growth of the Cosmo Energy Group.



Left: Hiroshi Kiriyama, Representative Director and Group Chairman Right: Shigeru Yamada, Representative Director and Group CEO

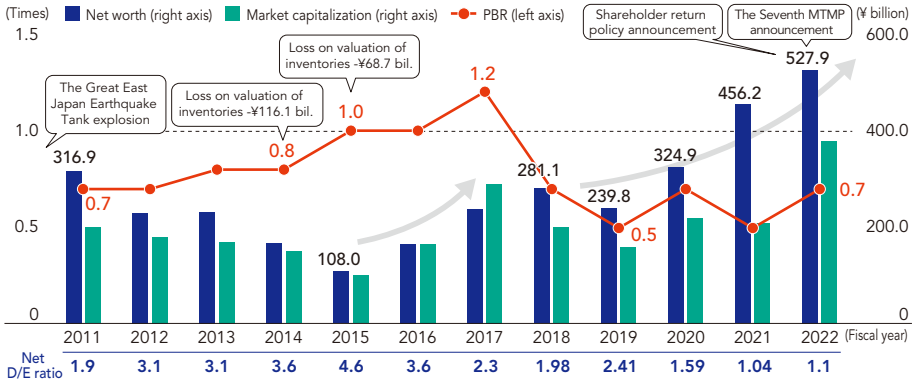
Initiatives to Enhance Enterprise Value

Although the Cosmo Energy Group experienced a notable decline in financial health due to factors such as the impact of the Great East Japan Earthquake and the booking of substantial inventory valuation losses resulting from the fall in crude oil prices, we successfully restored our financial standing to a certain extent through the diligent execution of various initiatives during the period of the Sixth Consolidated Medium-Term Management Plan (FY2018-2022).

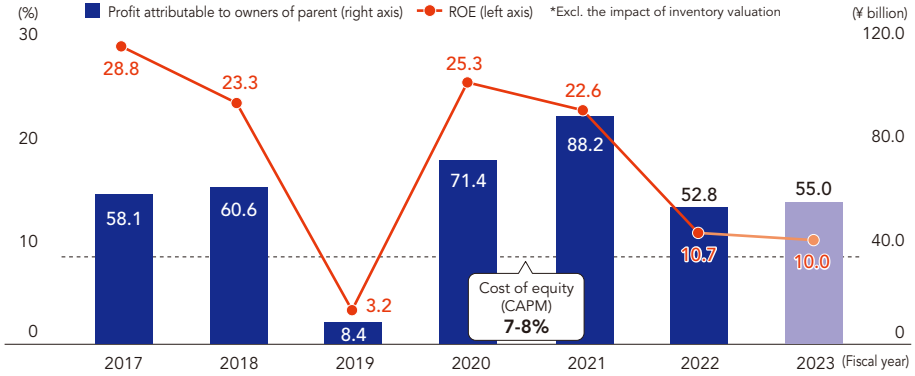
In FY2022, we announced a shareholder return policy that explicitly emphasized significant strengthening of shareholder returns. In March 2023, we unveiled the Seventh Consolidated Medium-Term Management Plan, which encompasses a three-pronged capital policy emphasizing shareholder returns, capital efficiency, and financial health. This plan was generally well received by capital markets. On the other hand, since one of the key stock price indicators, the price book-value ratio (PBR), continues to remain below 1.0 times, we have established three new basic policies to boost the effectiveness of our efforts to enhance enterprise value.

We are committed to pursuing both short-term and medium- to long-term initiatives to enhance enterprise value and ultimately improve our PBR. As of September 30, 2023, our PBR was at 0.9 times.

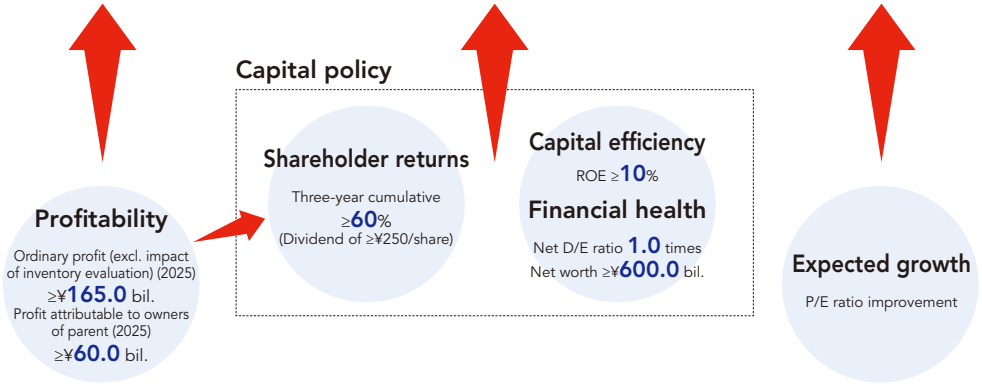
Trend in PBR, net worth and market capitalization



Trend in ROE excluding the impact of inventory valuation



Enterprise value enhancement (PBR improvement)



Basic policies	Profitability	• Thorough implementation of the Seventh MTMP and further improvement of profitability	Short-term initiative Medium- to long-term initiative
	Capital policy	• Early realization of a total payout ratio of ≥60% • Review of business portfolio and capital efficiency	Short-term initiative Medium- to long-term initiative
	Expected growth	• Steady realization of *New* businesses	Medium- to long-term initiative

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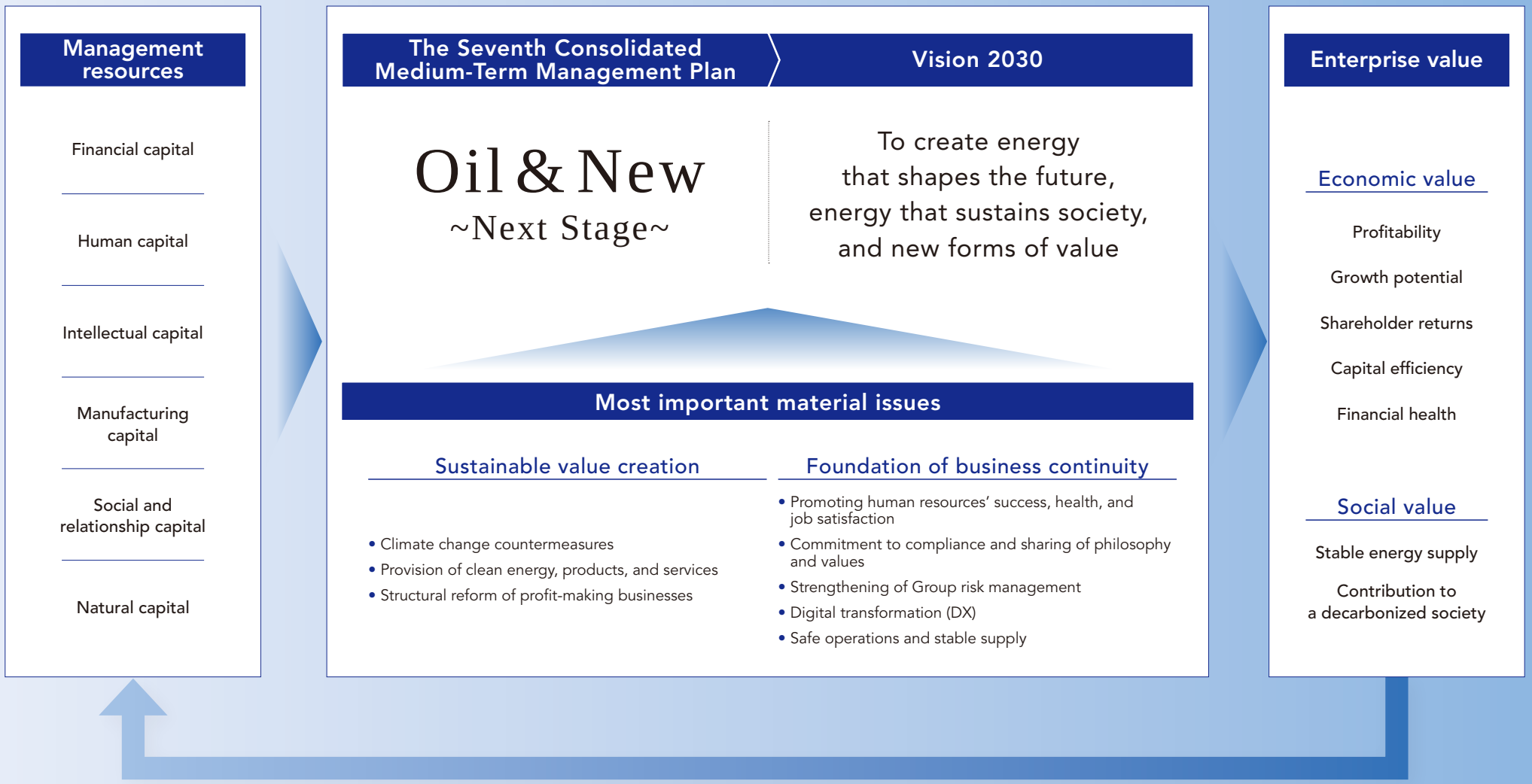
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VALUE CREATION MODEL

The Cosmo Energy Group will enhance enterprise value while addressing the most important material issues, leveraging tangible and intangible management resources to realize the Seventh Consolidated Medium-Term Management Plan and Vision 2030, which integrate financial and non-financial initiatives.



Value Creation Model

Resources and Enterprise Value to Sustain Value Creation

Management resources

Financial capital

Total assets	¥**2,120.8** billion
Net assets	¥**663.4** billion
Free cash flow	-¥**73.1** billion

Human capital

Number of employees (consolidated)	**6,659** people
Average number of temporary workers	**3,589** people

Intellectual capital

Intellectual property rights

Number of patents held **1,362**
(Japan: 628, Overseas: 734)

Number of trademark rights held **471**
(Japan: 355, Overseas: 116)

Brand

Company recognition rate **96**%[1]

1 Based on a nationwide survey of 2,000 men and women aged 16-69 years by an external research agency (as of August 2022)

Social and relationship capital

Number of Cosmo The Card holders	**3.84** million
Cumulative number of Cosmo My Car Lease contracts	**108,104** vehicles
Number of Carlife Square app downloads	**5.95** million
Friendly relationship with oil-producing countries	Over **50** years

Manufacturing capital

Crude oil production: Approx. **42,000** barrels per day
(comparison with crude oil processing capacity: approx. 11%)

Crude oil processing capacity: **400,000** barrels/day

Refinery operating rate[1]: **97.8**%

Operational Management System (OMS) as a basis for safe operations and stable supply

Number of service stations: **2,649**

Petrochemical production capacity[2]

Olefins	Ethylene[4]	**1.29** million tons/year
Aromatics	Para-xylene	**1.36** million tons/year
	Benzene	**735,000** tons/year
	Mixed-xylene	**618,000** tons/year

Wind power plant capacity[3]: **310** MW
(No. 3 in Japan/7% domestic share)

1 FY2022 result on a calender day basis
2 Includes production capacity of Keiyo Ethylene (consolidated subsidiary 55% owned by Maruzen Petrochemical)
3 As of June 30, 2023

Natural capital

Crude oil reserves: **130** million barrels
(equivalent to approx. 17 years worth of supply)

Wind, sunlight, and other natural energy sources

*Unless otherwise specified, figures are actual results for FY2022 or as of March 31, 2023.

Enterprise value

Economic value

(FY2025 target under the Seventh MTMP)

Profitability	Ordinary profit (excl. impact of inventory valuation) ¥**165.0** bil. Profit attributable to owners of parent ≥ ¥**60.0** bil.
Growth potential	Investment in *New* fields ¥**140.0** bil.
Shareholder returns	Total payout ratio ≥**60**% Dividend ≥¥**250** per share
Capital efficiency	ROIC ≥**6**% ROE ≥**10**%
Financial health	Net D/E ratio **1.0** times (Net worth ≥¥600.0 bil.)

Social value

Stable energy supply

Contribution to a decarbonized society

Having achieved a certain degree of success in improving our financial position under the Sixth MTMP, the Seventh MTMP will take us to the next stage. We aim to continuously enhance enterprise value as we look to fulfill Vision 2030.

For further details of The Seventh Consolidated Medium-Term Management Plan, please refer to the following page on our corporate website.

https://www.cosmo-energy.co.jp/en/about/ir/management/mediumterm.html

2050
NET ZERO
carbon emissions

Vision 2030

FY 2023-2025

FY 2018-2022

The Sixth Consolidated Medium-Term Management Plan

Oil & New

	2017	2022
Net worth	¥238.7 bil	¥527.9 bil
Net D/E ratio	2.30 times	1.10 times

Financial position improvement

The Seventh Consolidated Medium-Term Management Plan

Oil & New ~Next Stage~

Enterprise value enhancement

- Profitability
- Capital policy
  Shareholder returns/
  Financial health/
  Capital efficiency
- Expected growth

Management foundation transformation
HR/Digital/Green

Recap of the Sixth Medium-Term Management Plan (FY2018-2022)

We significantly increased our profitability by steadily implementing initiatives. The Seventh Consolidated Medium-Term Management Plan will take us to the next stage.

Basic policies

Under the slogan "Oil & New Everything About Oil – And Beyond," we implemented initiatives based on four basic policies.

1. Secure profitability to enable reinvestment
2. Expand growth driver toward the future
3. Improve financial condition
4. Strengthen Group management foundation

Key initiatives

1 Secure profitability to enable reinvestment

Build a safe and stable operational framework (take up a short position)

Started supplying oil to Kygnus Sekiyu K.K.
Improved refinery operating rate to **91**% (FY2022*)

*Four-year average on calendar day basis

2 Expand growth driver toward the future

Early development of offshore wind power (expand onshore wind power)

Developed **150** MW new onshore wind farm
Commenced operation of Japan's first large-scale offshore wind farm
Developing multiple offshore pipelines

3 Improve financial condition

Increase net worth based on profit

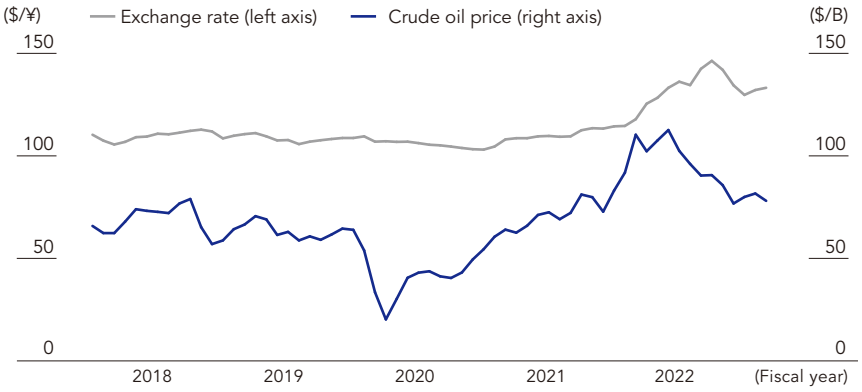
Net worth ¥**527.9** bil. (FY2022)
Net D/E ratio **1.10** times (FY2022)

4 Strengthen Group management foundation

Implement sustainable management

Established sustainability promotion framework
Issued 2050 Carbon Net Zero Declaration and disclosed roadmap

External environment during the Sixth MTMP (Trend in crude oil price and exchange rate)



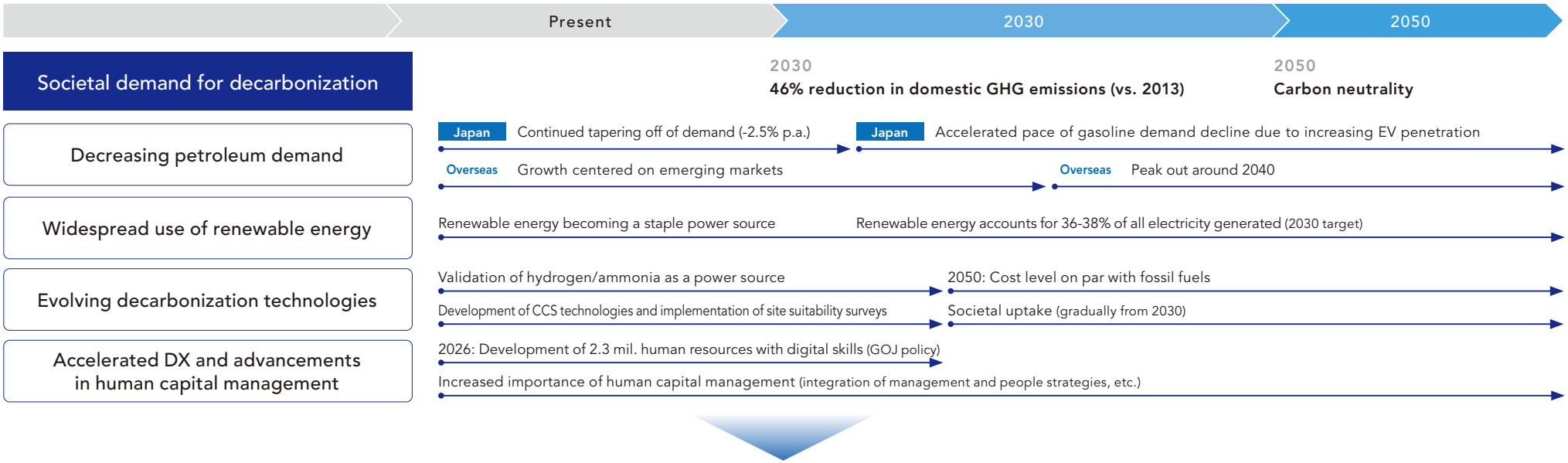
Results vs. management goals

We significantly increased our average profitability under the Sixth MTMP by steadily implementing initiatives. In addition, we improved our financial position, which had been a long-standing issue, to a certain extent by strengthening profitability.

Management goals		FY2022 results
Ordinary profit (excl. the impact of inventory valuation)	≥¥120.0 bil.	¥142.9 bil.
Profit attributable to owners of parent	≥¥50.0 bil.	¥67.9 bil.
Free cashflow (five-year total)	≥¥150.0 bil.	¥84.1 bil.
Net worth (Net worth ratio)	≥¥400.0 bil.(≥20%)	¥527.9 bil. (24.9%)
Net D/E ratio	1.0-1.5 times	1.10 times
ROE	≥10% (excl. the impact of inventory valuation)	13.8% (10.7%)

Future External Environment and Vision 2030

Efforts to achieve carbon neutrality by 2050 will progress and the world will enter an era of energy transformation.



Vision 2030

To create energy that shapes the future, energy that sustains society, and new forms of value

Green Energy

Bolster green electricity supply chain

Build a high value-added supply chain that encompasses power generation, supply-demand adjustment and sales

Next-Generation Energy

Expand next-generation energy

Supply SAF and develop hydrogen and other energy businesses

Oil Business

Strengthen competitiveness of *Oil* Business and pursue low carbonization

Enhance competitiveness by digitizing refineries, etc., and shift to low-carbon operations through CCS/CCUS

Vision 2030

Three pillars: Bolster green electricity supply chain

As we look ahead toward 2030, the Group will expand its green electricity sales beyond the Renewable Energy Business, which is currently centered on wind power, by establishing a supply-demand adjustment and electricity storage system. We will maximize the value of green electricity by building and strengthening all green electricity-related supply chains.

Strategic investment (net) (~2030 eight-year cumulative)	CO_2 reduction (vs. 2013)
¥300.0 bil. (incl. ¥130.0 bil. in offshore wind power)	-1.3 mil. tons

Present | The Seventh MTMP period | 2030

Construction of green electricity supply chain

FY2025 Ordinary profit ¥8.0 bil.

Increase renewable energy generation capacity

- Acquire offshore wind farms (total capacity 600MW)
- Expand onshore wind farms
- Consider expanding other renewable energy power sources (solar power, etc.)

Renewable energy generation capacity 310MW → Renewable energy generation capacity 390MW

Install storage batteries and build supply-demand management function

- Commence operation of storage batteries at power plants
- Commence operation of grid-scale storage systems (for market trading)

Storage battery function -MW → Storage battery function 50MW

Increase sales of electricity

- Grow sales of green electricity
- Expand introduction of green electricity-driven EV solutions

Electricity sales volume 300 mil. kWh → Electricity sales volume 1.0 bil. kWh

Expand mobility business in anticipation of shift to EVs

- Develop vehicle sales (online/corporate) channels
- Start selling commercial EVs
- Increase sophistication of marketing science

No. of lease contracts 12,000 vehicles/year → No. of lease contracts 20,000 vehicles/year

Maximize value of green electricity across entire supply chain

- Renewable energy generation 2,000MW (wind power ≥1,500MW) — Electricity value
- Supply-demand adjustment/storage Stored power 500MW — Supply-demand optimization; Electricity value
- Green electricity sales 4.0 bil. kWh — Green electricity value + value of other services; Supply-demand optimization; Electricity value

Ordinary profit ¥40.0 bil.

Vision 2030

Three pillars: Expand next-generation energy

The Cosmo Energy Group will realize mass production of Japan's first locally-made SAF, and steadily build a structure capable of supplying 300,000 kiloliters in 2030. Furthermore, we will promote hydrogen and next-generation energy initiatives, beginning with the operation of hydrogen stations.

Strategic investment (~2030 eight-year cumulative)	CO_2 reduction (vs. 2013)
¥**100.0** bil.	**-400,000** tons

The Seventh MTMP period | 2030

Mass production of Japan's first locally-made SAF

Produce SAF from waste cooking oil

- Start construction of new manufacturing line by end of 2023
- Start commercial operations in second half of FY2024 - early FY2025
- Established SAFFAIRE SKY ENERGY LLC with JGC Holdings and Revo International in Nov. 2022

COSMO (SAF production) × JGC (Equipment manufacturing) × REVO INTERNATIONAL (Waste cooking oil collection)

Established LLC → SAFFAIRE SKY ENERGY

FY2025
Ordinary profit ¥**1.0** bil.

SAF supply **30,000**KL

Expand production scale

SAF supply **300,000**KL

Produce SAF using Alcohol-to-Jet (ATJ) technology

- Completed feasibility studies during FY2022
- After making a final investment decision in FY2024,
- aim to start construction from FY2025 and commence commercial operations in FY2027

COSMO (SAF production) / MITSUI & CO. / LanzaJet (ATJ technology)

Development of hydrogen and other energy businesses

Select and develop next-generation energy, considering feasibility and business viability

- Establish hydrogen stations for FCV trucks (planned for FY2024)
- Investigate use of hydrogen production technology that immobilizes carbon from fractions generated at refineries
- Develop olefin production technology through direct decomposition of waste plastics
- Validate ammonia fuel conversion technology in naphtha cracking furnaces, etc.

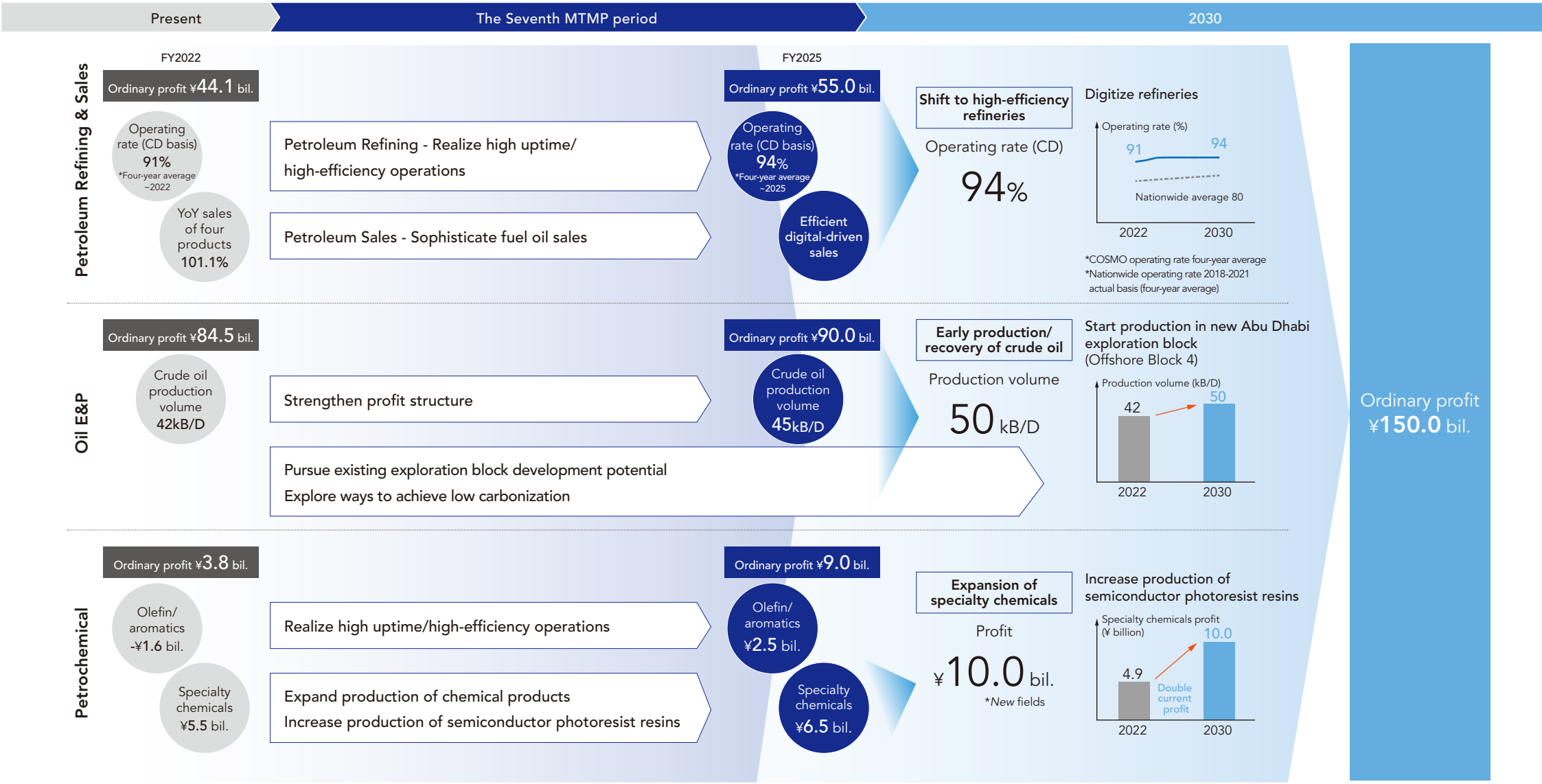
Ordinary profit ¥**10.0** bil.

Vision 2030

Three pillars: Strengthen *Oil* Business competitiveness and pursue low carbonization

To fulfill our mission of providing a safe and stable supply of energy, we will further strengthen our competitiveness in our Petroleum Refining and Sales, Oil Exploration and Production, and Petrochemical businesses. At the same time, we will steadily undertake efforts to realize low-carbon operations in each.

Strategic investment (~2030 eight-year cumulative)	CO_2 reduction (vs. 2013)
¥**200.0** bil.	**-300,000** tons + α



The Seventh Consolidated Medium-Term Management Plan

Toward Enhancement of Enterprise Value

We have defined the basic policies of our Seventh MTMP, "Oil & New ~Next Stage~," as: secure profitability, expand *New* fields to drive growth, realize a three-pronged capital policy, and transform our management foundation. In order to maximize enterprise value, we will realize our business strategy by utilizing non-financial capital, improve profitability through this effort, ensure a generous capital policy, and expand our growth businesses.

The Seventh MTMP basic policies

Oil & New ~Next Stage~

1 Secure profitability

- Ensure high uptime and high-efficiency operations at refineries
- Increase sophistication of fuel oil sales through marketing science
- Maximize production volume of Oil E&P Business

2 Expand *New* fields to drive growth

- Establish green electricity supply chain profit foundation
- Mass-produce Japan's first locally-made SAF
- Expand mobility business in anticipation of shift to EVs
- Increase specialty chemicals profit

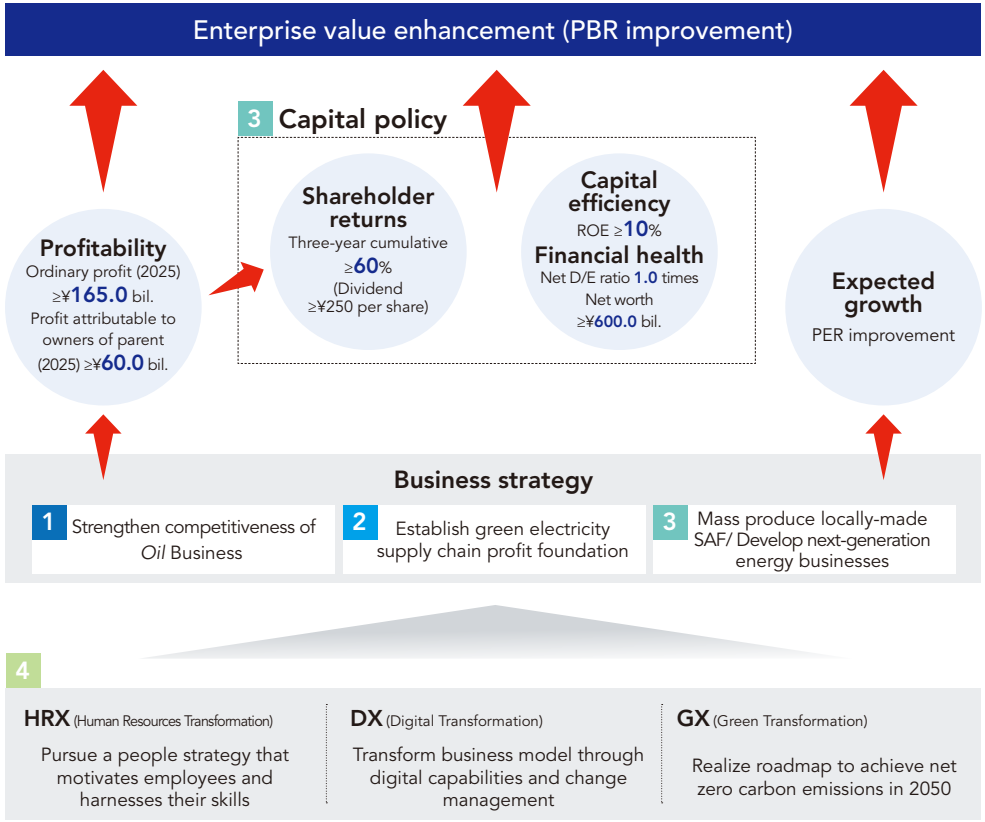
3 Realize three-pronged capital policy

- Proactively return profits to shareholders
- Secure sound financial health from multiple perspectives
- Achieve stable capital efficiency

4 Transform management foundation

- **HRX** Pursue a people strategy that motivates employees and harnesses their skills
- **DX** Transform business model through digital capabilities and change management
- **GX** Realize roadmap to achieve net zero carbon emissions

Roadmap to enterprise value enhancement



The Seventh Consolidated Medium-Term Management Plan

Management Foundation Transformation

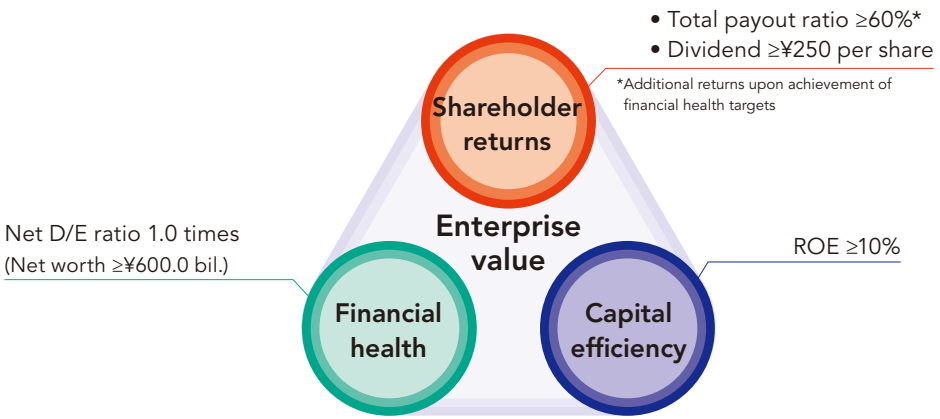
To transform our management foundation under the Seventh MTMP, we will undertake efforts in the areas of HRX, DX, and GX.

	Policy	FY2023 → FY2024 → FY2025	KPI
HRX See page 59 for details	**Pursue a people strategy that motivates employees and harnesses their skills**	Introduce a compensation system to boost motivation (increase wages) Bolster autonomous career development (expand/improve job challenge system) Increase investment in strengthening HR and employees' skills (double investment in HR development) Step up recruitment of women/mid-career hires (double proportion of female managers, achieve ratio of 50% mid-career hires)	Engagement index ≥60 points HR development investment ¥180,000 per person
DX See page 67 for details	**Transform business model through digital capabilities and change management**	Strengthen competitiveness of existing businesses/operations through DX Cultivate core digital personnel and hold DX Forum Upgrade data utilization infrastructure and strengthen data governance Leverage data analysis in development of new businesses Complete shift to paperless operations Increase operational efficiency leveraging IT/DX	Core digital personnel 900 people
GX See page 53 for details	**Realize roadmap to achieve net zero carbon emissions**	Realize roadmap for net zero carbon emissions	2030 GHG emissions reduction ≥-30% (vs. 2013)

The Seventh Consolidated Medium-Term Management Plan

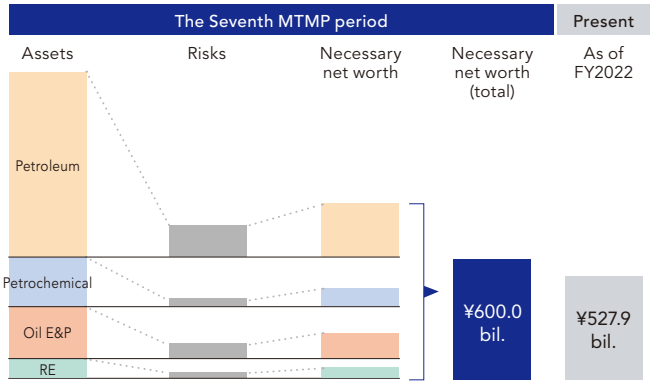
Capital Policy

We aim to maximize enterprise value through a three-pronged approach that places equal emphasis on shareholder returns, financial health, and capital efficiency.



Financial health

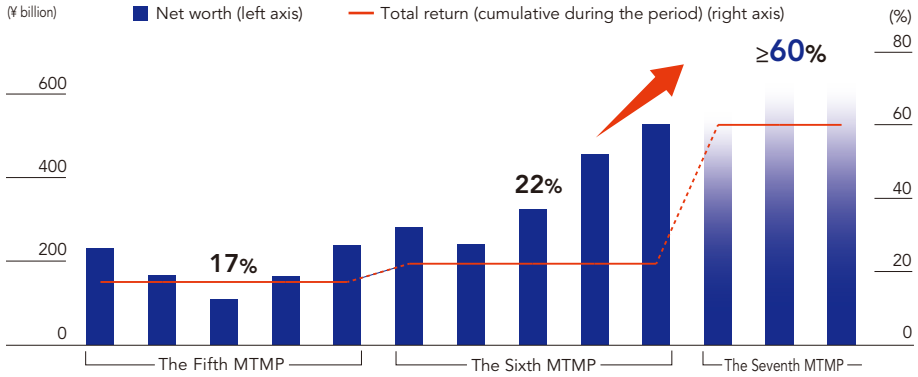
We set a target net debt-to-equity ratio of 1.0 times and a net worth of ¥600.0 billion or more based on the assumption that we can continue to maintain a balance between debt and net worth on par with current levels. In setting our necessary net worth, we analyzed the performance of about 130 companies in total, 30 to 40 companies per segment, and used objective data as the basis for our calculations.



Shareholder returns

We are committed to maximizing the expansion of shareholder returns as we realize our three-pronged capital policy. We have set a total payout ratio of 60% or more of net profit (excluding the impact of inventory valuation) and will pay a stable dividend of at least ¥250 per share. If we achieve our targets in terms of financial health, we will, in principle, provide additional returns.

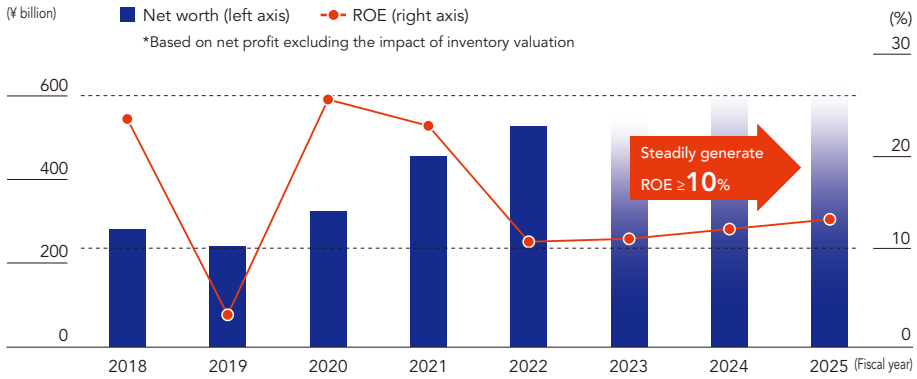
Trend in net worth and total payout ratio



Capital efficiency

We project that net worth, which increased significantly under the Sixth MTMP, will improve further toward our target. Meanwhile, we aim to steadily generate ROE of 10% or more.

Trend in ROE and net worth



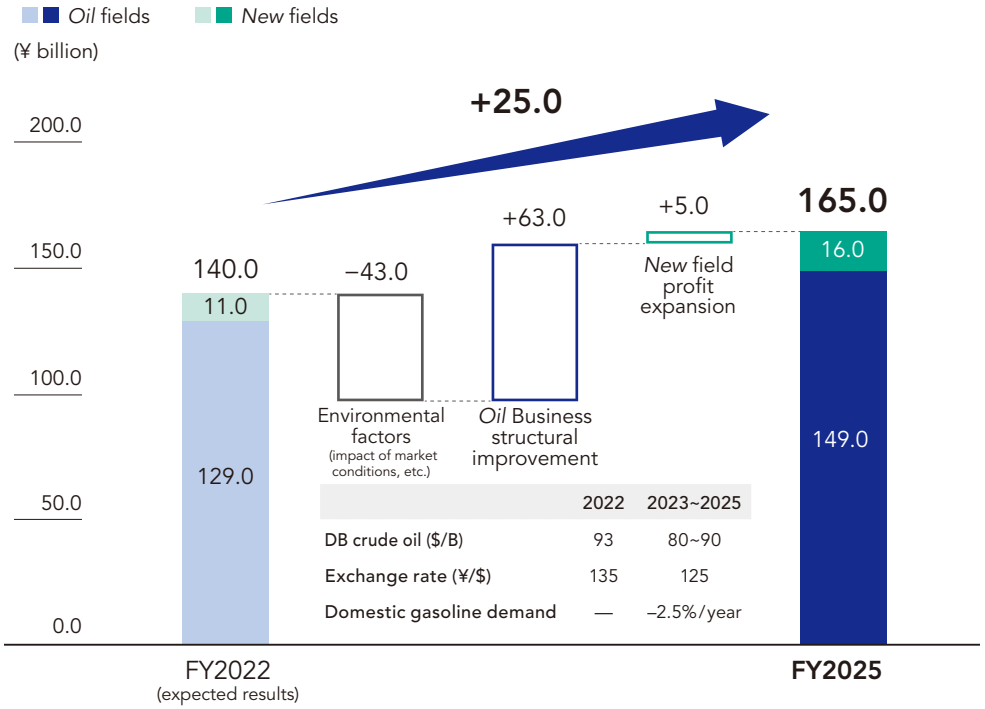
The Seventh Consolidated Medium-Term Management Plan

Profit and Investment Plans

Profit plan

In our profit plan laid out in the Seventh MTMP, we aim to achieve ordinary profit excluding the impact of inventory valuation of ¥165.0 billion in FY2025. In addition to structural improvements in our *Oil* Business, we anticipate a ¥25.0 billion increase in profit compared to FY2022 due to profit expansion in our *New* fields.

Ordinary profit (excluding the impact of inventory valuation)

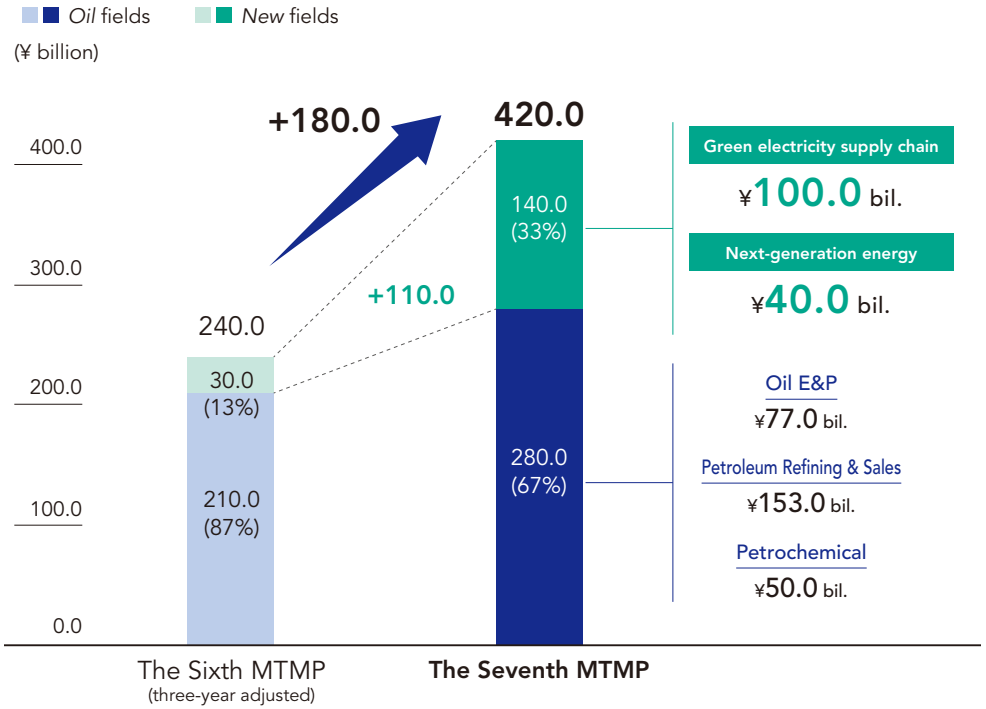


	2022	2023~2025
DB crude oil ($/B)	93	80~90
Exchange rate (¥/$)	135	125
Domestic gasoline demand	—	–2.5%/year

Investment plan

Total investment during the Seventh MTMP is expected to be ¥420.0 billion, an increase of ¥180.0 billion from the Sixth MTMP. We will greatly expand investment in *New* fields, centered on the green electricity supply chain, with investment in *New* fields accounting for about 30% of the total. In the *Oil* fields, although investment cost has increased due to large-scale periodic maintenance at our refineries and inflation, we will make necessary investments to realize a safe and stable supply.

Total investment



The Seventh Consolidated Medium-Term Management Plan

Management Goals

Shareholder returns

Total payout ratio
(excl. the impact of inventory valuation)

≥60 %
Three-year cumulative

Dividend

≥¥250 per share

Financial health

Net D/E ratio

1.0 times
Net worth ≥¥600.0 bil.

Capital efficiency

ROE

≥10 %

ROIC

≥6%

Profitability

Ordinary profit
(excl. the impact of inventory valuation)

≥¥165.0 bil.
Profit attributable to owners of parent ≥¥60.0 bil.

Future investment

Investment in *New* fields

¥140.0 bil.
Three-year cumulative

DX

Development of core digital personnel

900 people

HRX

Engagement index

≥60 points

Human capital investment

¥180,000
per person

GX

GHG emission reduction

2030 vs. 2013
(incl. Scope 1, 2 and reduction contribution)

-30%

Message from the CFO



We are committed to enhancing enterprise value by realizing our three-pronged capital policy.

Takayuki Uematsu

Representative Director,
Senior Managing Executive Officer
In charge of Sustainability Initiative Dept.,
Accounting Dept., and Finance Dept.

Summary of the Sixth MTMP and looking toward the Seventh MTMP

Looking back at the external environment during the period for our Sixth Consolidated Medium-Term Management Plan (hereafter, "the Sixth MTMP"), crude oil prices fluctuated considerably. For example, prices fell sharply from 2019 to 2020 due to the spread of COVID-19, but soared due to economic normalization and geopolitical risks beginning in 2021. In addition, with the rise in US interest rates triggered by global inflation, it was an absolute period of VUCA[1] given factors such as the exchange rate proceeding largely in the direction of a weaker yen and the rise in energy and steel costs.

Despite large fluctuations in the external environment, we faithfully implemented measures written in its four basic policies: secure profitability to enable reinvestment, expand growth drivers toward the future, improve financial condition, and strengthen Group management foundation. These included taking up a short position and proceeding with early development of offshore wind power generation. This allowed the Company to significantly increase its profitability and improve its financial position to a certain degree.

As more realistic transitions are required, enhancing the enterprise value of the Company remains our most important management agenda and a clear capital policy to support this effort is necessary.

Given that we achieved a certain degree of success in improving our financial position under the Sixth MTMP and are now able to hold even higher-level discussions, we have newly outlined our capital policy in the Seventh Consolidated Medium-Term Management Plan (hereafter, "the Seventh MTMP").

Company performance is significantly affected by trends in crude oil prices; however, even in times of large fluctuations in the external environment, we must balance the transition in our *Oil* Business, which produces a large amount of carbon dioxide, with growth in *New* fields, such as our Renewable Energy Business.

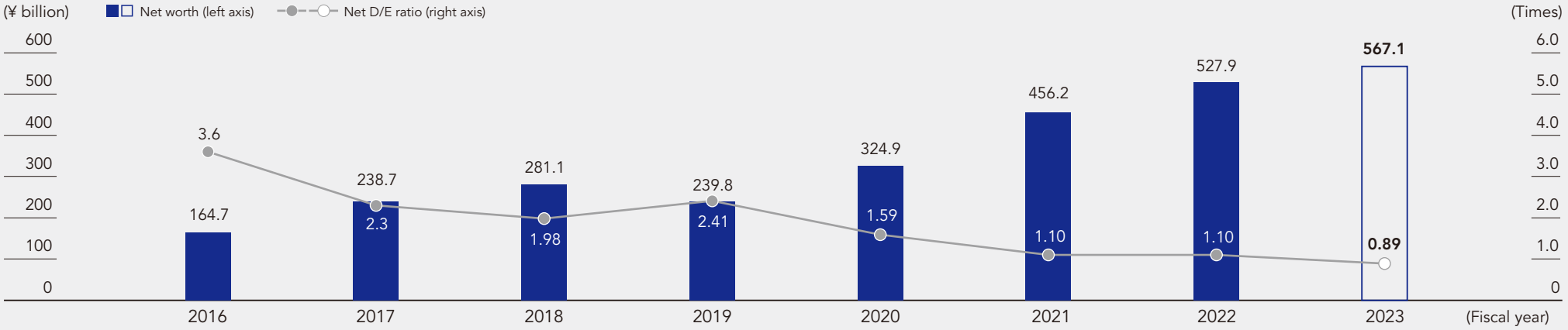
Both will require large investments over the medium to long term, but if we do not maintain a certain level of financial health, flexible financing may prove difficult. On the other hand, we are fully aware that if we do not consider shareholder returns and the capital efficiency required of us by the stock market, we will not be able to enhance enterprise value.

Thus, as part the Company's capital policy, we have chosen to strike a balance between shareholder returns, financial health, and capital efficiency aiming to maximize enterprise value without compromising any of these aspects.

In addition, we have worked to diversify our financing by improving our financial position and boosting our ratings, and in FY2022, we obtained A- ratings. These

1 VUCA: Abbreviation of Volatility, Uncertainty, Complexity, Ambiguity; refers to a situation in which the way forward is unclear, and the future is difficult to predict.

Trend in net worth and net D/E ratio



ratings make it possible to receive financing through bond issuance and opens the doors to a wider range of financing options for the upcoming transition.

Providing greater shareholder returns

If we look back at the corporate action we took in FY2022, in terms of shareholder returns, the Company increased the dividend per share by ¥50 (from ¥100 to ¥150) and conducted a ¥20.0 billion share buyback. The dividend payout ratio based on profit attributable to owners of parent excluding the impact of inventory valuation, which demonstrates the Company's capability, was over 20%. However, the total payout ratio, including share buyback, reached over 60%.

In terms of necessary net worth, in my position as CFO, I keep a close eye on the balance between shareholder returns, financial health, and capital efficiency including the repurchase of a portion (¥24.15 billion) of zero-coupon convertible bonds (CB) in November 2022.

The capital market commented that the Company's capital policy is becoming much more refined. As CFO, I am committed to realizing a capital policy that will benefit shareholders and investors from a medium- to long-term perspective while consistently monitoring the Company's financial situation.

Bolstering shareholder returns

Annual dividend per share

FY2023 forecast	FY2022	YoY
¥250	¥150	¥100

Achievements in FY2022 and forecast for FY2023

FY2022 was the final fiscal year of the Sixth MTMP, and in this fiscal year, ordinary profit excluding the impact of inventory valuation was ¥142.9 billion and profit attributable to owners of parent was ¥67.9 billion.

In the Oil E&P Business, while we saw a large increase in profits due to rising crude oil prices, profits decreased compared to the previous fiscal year's record-breaking profit due to rising in-house fuel costs, increasing energy costs brought on by inflation, and the impact of issues at refineries in the Petroleum Business.

In FY2023, the first fiscal year of the Seventh MTMP, while we anticipate improvements in margins for the four products[2] and elimination of the impact of trouble at refineries in FY2022, we project a decrease in profit compared to the previous fiscal year due to large-scale periodic maintenance at our refineries and the fall in crude oil prices. Ordinary profit excluding the impact of inventory valuation is expected to be ¥125.0 billion and profit attributable to owners of parent is expected to be ¥55.0 billion.

2 Four products: The four main petroleum products (gasoline, kerosene, diesel oil, heavy fuel oil A)

In closing

Given that we are now able to hold even higher-level discussions having achieved a certain degree of success in improving our financial position, we have taken a new step forward by disclosing our capital policy. Going forward, firmly applying this policy to meet capital market expectations will be our number one priority.

In addition to further expanding dialogue regarding medium- to long-term enterprise value enhancement, as CFO, I will continue to emphasize healthy communication with the capital market.

Consolidated profit and loss compared to previous fiscal year

(¥ billion)

	FY2022	FY2021	YoY	FY2023 forecast	YoY
Ordinary profit (excluding the impact of inventory valuation)	**142.9**	160.8	**-17.9**	**125.0**	-17.9
Profit attributable to owners of parent	**67.9**	138.9	**-71.0**	**55.0**	-12.9
Profit attributable to owners of parent (excluding the impact of inventory valuation)	**52.8**	88.3	**-35.5**	**55.0**	2.2
Net worth	**527.9**	456.2	**71.7**	**567.1**	39.2
Net worth ratio (%)	**24.9**	23.5	**1.4**	**25.9**	1.0
Net D/E ratio (times)	**1.10**	1.10	**0.00**	**0.89**	-0.21

Management Discussion and Analysis

Summary of consolidated profit and loss

FY2022 results

In FY2022, ordinary profit stood at ¥164.5 billion, down ¥68.6 billion year on year, and profit attributable to owners of parent was ¥67.9 billion, down ¥71.0 billion year on year. Substantial ordinary profit excluding the impact of inventory valuation was ¥142.9 billion, down ¥17.9 billion year on year.

In terms of the breakdown of ordinary profit excluding the impact of inventory valuation for each segment, profit in the Petroleum Business was ¥44.1 billion, down ¥49.6 billion year on year due primarily to the impact of the unplanned outage, higher in-house fuel costs, and rising energy costs owing to inflation, despite improved overseas market conditions. In the Petrochemical Business, ordinary profit decreased ¥9.8 billion year on year to ¥3.8 billion due mainly to a decline in sales volume owing to deteriorating olefin market conditions. In the Oil E&P Business, ordinary profit increased ¥39.7 billion year on year to ¥84.5 billion due to a rise in crude oil prices. In the Renewable Energy Business, ordinary profit was down ¥0.9 billion year on year to ¥2.6 billion due to unfavorable wind conditions and upfront costs associated with the development of offshore wind power by Cosmo Eco Power.

FY2023 forecast

In FY2023, we forecast ordinary profit to decline ¥39.5 billion year on year to ¥125.0 billion, profit attributable to owners of parent to decrease by ¥12.9 billion to ¥55.0 billion, and substantial ordinary profit excluding the impact of inventory valuation to decrease by ¥17.9 billion to ¥125.0 billion. We do not expect any impact from inventory valuation for the fiscal year.

Regarding the breakdown of forecasted ordinary profit excluding the impact of inventory valuation for each segment, in the Petroleum Business, despite plans to undertake large-scale periodic maintenance at the Chiba and Sakai refineries, improvement in the margins of the four main products and the absence of the unplanned refinery outage we faced in the previous fiscal year are expected to contribute to ordinary profit of ¥56.0 billion, an increase of ¥11.9 billion year on year. In the Petrochemical Business, ordinary profit is projected to decline by ¥1.8 billion year on year to ¥2.0 billion due to deteriorating market conditions, even though sales volume is forecast to improve. In the Oil E&P Business, ordinary profit is expected to decrease by ¥29.5 billion year on year to ¥55.0 billion due to falling crude oil prices. In the Renewable Energy Business, ordinary profit is forecast to decrease by ¥0.6 billion year on year to ¥2.0 billion due to upfront costs such as personnel expenses associated with the full-fledged development of offshore wind power by Cosmo Eco Power.

Consolidated statement of income (year-on-year comparison)

(¥ billion)

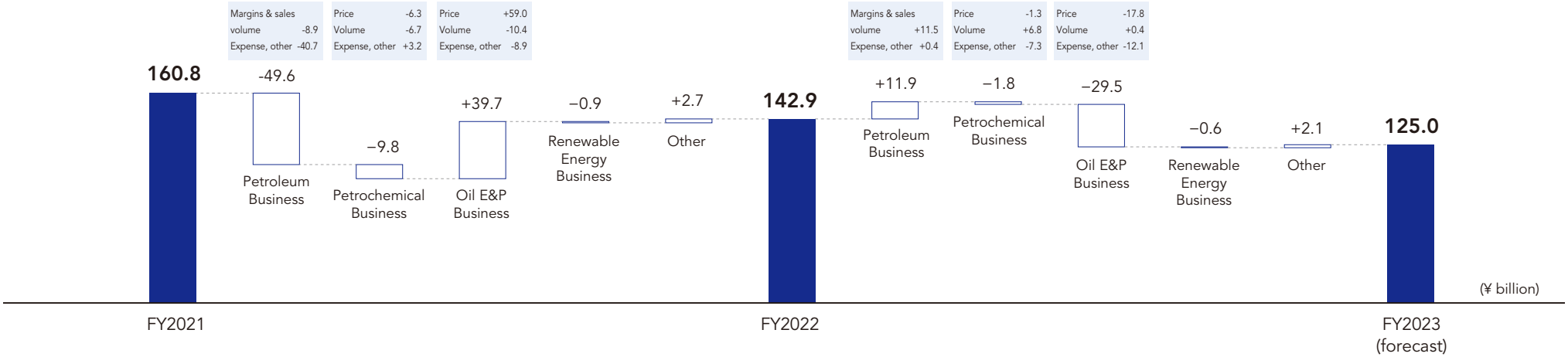
	FY2022	YoY	FY2023 Forecast	YoY
Net sales	**2,791.9**	351.4	**2,670.0**	-121.9
Operating profit	**163.8**	-71.5	**123.5**	-40.3
Ordinary profit	**164.5**	-68.6	**125.0**	-39.5
Impact of inventory valuation	**21.6**	-50.7	**0**	-21.6
Ordinary profit (excluding the impact of inventory valuation)	**142.9**	-17.9	**125.0**	-17.9
Petroleum Business	**44.1**	-49.6	**56.0**	11.9
Petrochemical Business	**3.8**	-9.8	**2.0**	-1.8
Oil E&P Business	**84.5**	39.7	**55.0**	-29.5
Renewable Energy Business	**2.6**	-0.9	**2.0**	-0.6
Other	**7.9**	2.7	**10.0**	2.1
Profit attributable to owners of parent	**67.9**	-71.0	**55.0**	-12.9
Dubai crude oil price (US$/barrel, Apr. to Mar.)	**93**	15	**85**	-8
Foreign exchange rate (¥/US$, Apr. to Mar.)	**135**	23	**13.0**	-5
For reference				
Dubai crude oil price (US$/barrel, Jan. to Dec.)[1]	**95**	26	**83**	-12
Foreign exchange rate (¥/US$, Jan. to Dec.)	**131**	21	**131**	0

1 The Dubai crude oil price two months ago is listed, as ICE Murban crude oil price, which is the index price used for the Oil E&P Business, is assessed with reference to the Dubai crude oil price two months ago.
E.g., In the case of full-year results (January-December), the average Dubai crude oil price from November of the previous year to October of the current year is shown.

Consolidated ordinary profit (excluding the impact of inventory valuation)

FY2022 results Down ¥17.9 bil. year on year

FY2023 forecast Down ¥17.9 bil. year on year



Overview of consolidated cash flows and consolidated balance sheet

Financial position

In FY2022, free cash flows decreased from the previous fiscal year due to a decrease in cash flows from operating activities caused primarily by the temporary impact of subsidies to curb the surge in gasoline and other fuel prices, while cash flows from investing activities increased due primarily to the construction of onshore wind power sites and secondary recovery investment in the Hail Oil Field.

Regarding financial indicators, net worth and the net worth ratio increased year on year due to the posting of profit, contributing to improved financial health.

In FY2023, net worth, the net worth ratio, and the net debt-to-equity ratio (D/E ratio) are all forecast to improve from the previous fiscal year.

Consolidated cash flows

(¥ billion)

	FY2021	FY2022
Cash flows from operating activities (1)	108.4	**8.1**
Cash flows from investing activities (2)	-67.5	**-81.2**
Free cash flow (1+2)	40.9	**-73.1**
Cash flows from financing activities	-42.0	**81.1**
Cash and cash equivalents at end of the period	48.1	**61.8**

*Cash flows from operating activities for FY2022 includes one-time factors such as the impact of subsidies for gasoline and other fuels and the provisional payment of corporate income taxes, as well as the impact of holidays on gasoline tax payments, decreasing the total by ¥38.0 billion.

Consolidated balance sheet

(¥ billion)

	Mar. 31, 2022	Mar. 31, 2023	YoY
Total assets	1,938.4	**2,120.8**	182.4
Net assets	584.0	**663.4**	79.4
Net worth	456.2	**527.9**	71.7
Net worth ratio (%)	23.5	**24.9**	1.4
Net interest-bearing debt*	503.3	**581.9**	78.6
Net debt-to-equity ratio (times)	1.10	**1.10**	0.00

*Total interest-bearing debt less cash and deposits, etc., as of the end of the period

Cosmo Energy Group Businesses ~Present and Future~

Specific initiatives/potential under consideration

Oil Exploration and Production Business

Crude oil development

Relationships of trust with Middle Eastern oil-producing countries for 50 years

Operatorship (self-operation)

Oil exploration and production/ procurement

Crude oil procurement through independent development or from oil-producing countries; strong competitiveness through use of operatorship (self-operation)

Petroleum Business (Refining) and Petrochemical Business

Refining of petroleum products

Manufacturing and sales of petrochemical products

Storage

70 or more-day stockpiling of petroleum in case of an emergency

Marine transportation

Transportation by tankers of purchased or independently developed crude oil and petroleum products imported based on supply and demand

Research & development

Research on advanced manufacturing technologies

Oil refining/ petrochemical product production

Production of gasoline, diesel fuel, kerosene, and feedstock for petrochemical products, in accordance with market needs

Export of petroleum and petrochemical products

Export of petroleum and petrochemical products, in accordance with overseas demand

Domestic sales (industrial use)

Petroleum Business (Sales) and Retail Business

Sales of petroleum products

Car leasing for individuals

Domestic transportation

Use of appropriate transportation methods in consideration of costs and regional characteristics, as well as supply of petroleum products to various industries customers and service station operators, in accordance with their respective needs

Number of Carlife Square app downloads

5.95 million *As of March 31, 2023

Domestic sales (service stations and service station operators)

Sales of gasoline, diesel fuel, and other products, as well as general support of customers' car life

Hydrogen station

Cosmo My Car Lease

A low-risk business model with no vehicle inventory; takes advantage of high frequency of customer contact at service stations, EV leasing business launch

Electric power business

Procurement of electric power and sale to households and businesses

Renewable Energy Business

Wind power generation

In-house operation and maintenance

Development and construction of wind power generation facilities

Nationwide operation of wind farms and solar power generation facilities

Storage batteries

Green consumers

Electric power companies

Products and services

Petroleum products

Gasoline, kerosene, diesel fuel, fuel oil, etc.



Petrochemical products (materials for products for daily life)

Shopping bags, plastic bottles, clothes, tires, electric appliance frames, etc.



Car life solutions

Car leasing for individuals, etc.



Electric power



Business Overview

	Petroleum Business (Refining and Sales)	Petrochemical Business	Oil Exploration and Production Business	Renewable Energy Business	Total *Including other businesses
Net sales (FY2022 results)	¥2,451.5 billion	¥440.2 billion	¥138.0 billion	¥12.2 billion	¥2,791.9 billion
Ordinary profit (FY2022 results)	¥44.1 billion (excluding the impact of inventory valuation)	¥3.8 billion	¥84.5 billion	¥2.6 billion	¥164.5 billion/¥142.9 billion (excluding the impact of inventory valuation)
Number of employees (as of March 31, 2023)	4,189 people	1,129 people	318 people	227 people	6,659 people
Major operating companies and affiliated companies	Cosmo Oil Cosmo Oil Lubricants GYXIS Corporation Cosmo Oil Marketing Cosmo Oil Sales Cosmo Energy Solutions Kygnus Sekiyu	Maruzen Petrochemical Cosmo Matsuyama Oil CM Aromatics HD Hyundai Cosmo Petrochemical	Cosmo Energy Exploration & Production Abu Dhabi Oil Qatar Petroleum Development United Petroleum Development Cosmo E&P Albahriya Limited	Cosmo Eco Power CSD Solar	

Impact of inventory valuation

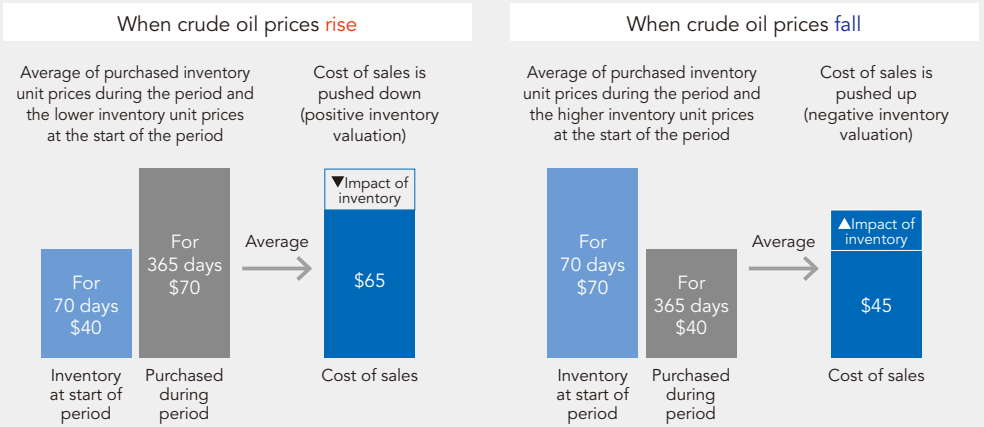
The impact of inventory valuation refers to the impact on the cost of sales in the financial statements, according to the inventory valuation method, when there is a change in the price of crude oil. It can be separated into the following two categories:

① Inventory valuation impact based on reduction in book value

If the market value of inventory at the end of the term falls below the book value, it is necessary to reduce the book value to the market value, and this indicates that a resulting loss is incurred.

② Inventory valuation impact based on the periodic average method

This refers to the impact in terms of income based on the periodic average method, which is an inventory valuation method. During periods when crude oil prices rise, the cost of sales is pushed down because purchased inventory unit prices that have risen during the period are averaged with the lower inventory unit prices at the beginning of the period. Conversely, during periods when crude oil prices fall, the cost of sales is pushed up because purchased inventory unit prices that have fallen during the period are averaged with the higher inventory unit prices at the start of the period.



PETROLEUM BUSINESS



Overview

In the Petroleum Business, Cosmo Oil, a core operating company of the Cosmo Energy Group, is mainly engaged in crude oil procurement, as well as the manufacturing, distribution, and importation and exportation of petroleum products. Meanwhile, Cosmo Oil Marketing, which is also a core operating company, sells Group products, including petroleum products, to corporate and individual customers.

Identified risks

- Risks related to crude oil prices and procurement
- Risks related to petroleum product prices and demand
- Risks related to accidents at and leakage from refineries and other facilities
- Business continuity risks associated with rapid environmental changes
- Risks related to book value depreciation of inventories due to a decline in profitability

Competitive advantages

- Maintaining high operating rates at refineries despite declining demand (a supply shortage position associated with fuel supply to Kygnus Sekiyu)
- Reinforcing connections with customers, and solid connections with service station operators and partners in other industries
- Development of brand products (Cosmo My Car Lease, Commitment Compulsory Car Inspection, Cosmo Denki (Electricity), Cosmo Zero Carbon Solution)
- High level of customer satisfaction, diversification of payment methods, and value creation centered on branding activities

Opportunities

- Globally accelerating trend toward carbon neutrality and measures to support the shift to a decarbonized society (shift to EVs, green electricity, and new fuels)
- Recovery in demand for jet fuel attributed to the lifting of COVID-19 border controls
- CASE* trends (mobility supply, maintenance, etc.)
- Changes in customer trends, digitalization, and the wider acceptance of cashless payments

*CASE: An acronym for Connected, Autonomous, Shared & Services, and Electric

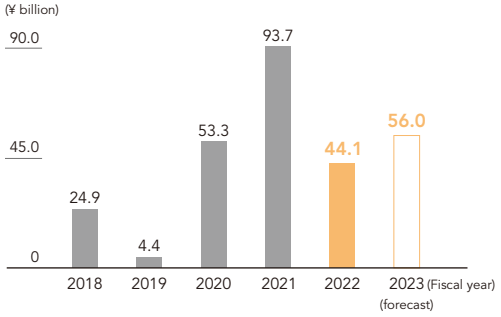
FY2022 results and FY2023 forecast

In FY2022, ordinary profit excluding the impact of inventory valuation was ¥44.1 billion, down ¥49.6 billion year on year, due primarily to the impact of issues at refineries, higher in-house fuel costs, and rising energy costs owing to inflation, despite improved overseas market conditions.

In FY2023, despite plans to undertake large-scale periodic maintenance at the Chiba and Sakai refineries, improvement in the margins of the four major products and the absence of the refinery issues we faced in FY2022 are expected to contribute to ordinary profit excluding the impact of inventory valuation of ¥56.0 billion, an increase of ¥11.9 billion year on year.

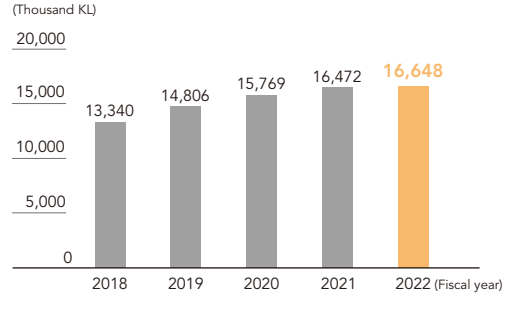
Segment ordinary profit

(excluding the impact of inventory valuation)



Four product sales volume

*The four products are the main petroleum products (gasoline, kerosene, diesel fuel, and heavy fuel oil A).



As a manufacturer and distributor of petroleum products, we are committed to achieving world-class stable operations and ensuring a consistent supply to our customers.



Yasuhiro Suzuki
President, Representative Director and CEO
Cosmo Oil Co., Ltd.

Koji Moriyama
President, Representative Director and CEO
Cosmo Oil Marketing Co., Ltd.

Petroleum Business

Business strategy

Key concepts of the Seventh Consolidated Medium-Term Management Plan

1. Ensure high uptime and high-efficiency operations at refineries
2. Utilize IT and digital technologies
3. Conduct initiatives for next-generation businesses (sustainable aviation fuel (SAF), hydrogen, and biodiesel fuel)
4. Enable efficient digital-driven sales
5. Maintain services stations and establish a business category conversion model

1 Ensure high uptime and high-efficiency operations at refineries

With the aim of enhancing the reliability of facilities at our refineries, we are striving to improve operational and maintenance capabilities and further increase refinery operating rates by introducing an Asset Performance Management (APM) system. Additionally, by shifting from periodic maintenance that involves equipment shutdowns to daily maintenance while equipment is operational, we aim to improve Operational Availability (OA) and achieve even higher operational efficiency.

2 Utilize IT and digital technologies

To achieve higher precision and safety in terms of operations and maintenance, we are committed to undertaking efforts towards the digitization of our refineries through the use of AI and VR technologies. Furthermore, we will focus on optimizing our supply chain by sophisticating production planning systems, automating shipping schedules, and other measures, harnessing IT and digital technologies.

4 Enable efficient digital-driven sales

By leveraging the Group's extensive customer data, including data from Cosmo The Card and app users, and ensuring data linkage with partners from other industries, we will be able to connect with a customer base larger than our current service station share. Utilizing this wealth of data, we will expand our offerings beyond fuel oil to encompass a wide range of services, including Cosmo My Car Lease, Commitment Compulsory Car Inspection, Cosmo Denki (Electricity), to cater to diverse customer needs.

5 Maintain services stations and establish a business category conversion model

As part of our strategy to address the aging of our service station facilities, we will implement planned preventive maintenance to proactively avert major accidents. Furthermore, at service stations that have traditionally focused on fuel oil sales, we will establish a business category conversion model to create new sources of revenue beyond fuel oil sales through remote business consultations, thus effectively utilizing the assets of the Group's service station network.

Key strategies under the Seventh Consolidated Medium-Term Management Plan

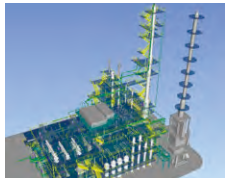
As part of our efforts to expand next-generation energy sources, we are actively validating and establishing a supply chain model for SAF[1], which uses waste cooking oil as feedstock. This initiative was adopted as a New Energy and Industrial Technology Development Organization (NEDO) project in FY2021 and is aimed at establishing a supply chain model for biojet fuel production from domestic waste cooking oil. In FY2025, we aim to become the first company in Japan to embark on large-scale domestic production of SAF. Looking toward the future, we also initiated studies on SAF production using ethanol as feedstock, diversifying our approach in terms of feedstock and manufacturing processes, etc. As announced in July 2022, we are working on establishing a supply chain in Japan with the goal of supplying 300,000 kiloliters of SAF annually by 2030.

In addition, we are planning to establish hydrogen stations that enable the quick refueling of both small and large fuel cell commercial vehicles in partnership with Iwatani Corporation. This initiative marks the beginning of our efforts to build a hydrogen supply chain, starting with the installation of the first hydrogen station at a truck terminal in Japan.

As for biofuels, we have started using Cosmo CF-5, a domestically produced diesel fuel blended with 5% biodiesel fuel, in our own deliveries, and we plan to expand sales of it to general consumers in the future.

1 Sustainable Aviation Fuel (SAF): fuel produced mainly from biomass-derived raw materials, including plants, as well as waste and waste cooking oil from restaurants and households. It enables the reduction of carbon dioxide emissions compared to fossil fuels.

Large-scale SAF manufacturing facility



Rendering of the completed facility



Planned construction site Cosmo Oil Sakai Refinery

Hydrogen station



PETROCHEMICAL BUSINESS



Overview

In the Petrochemical Business, Maruzen Petrochemical, a Group company, provides a stable supply of petrochemical products as an ethylene center in the petrochemical complex it is part of. Additionally, HD Hyundai Cosmo Petrochemical (Head Office and plant: Seosan, South Korea), a joint venture with HD Hyundai, supplies competitive petrochemical products from its paraxylene production facility, which boasts one of the highest production capacities in Asia.

Identified risks

- High volatility of petrochemical product prices
- Decreased domestic demand and export limitations due to China's economic slowdown and increased in-house manufacturing
- Relaxation of supply and demand resulting from new construction/expansion of overseas plants
- Sharp increase in raw material prices attributed to the situation in Ukraine and a weaker Japanese yen

Opportunities

- Increasing long-term semiconductor demand due to the growth of the carbon neutral and digital transformation markets
- Growing global demand for petrochemical products
- Net zero carbon emissions (acceleration of the global move towards decarbonization)

Competitive advantages

- Maintaining a world-leading market share in photoresist[1] polymers
- A diverse range of polymers, including those for photoresists and anti-reflection coating, cutting-edge EUV[2] photoresists, and thick-film photoresists for redistribution layers
- The ability to meet high-quality requirements from customers and increased production volume through state-of-the-art manufacturing and analytical technologies, as well as quality assurance
- Two ethylene production facilities in the Chiba area, and ethylene production capacity that is among the largest in Japan
- Promoting cooperation in oil refining with the Cosmo Oil Chiba Refinery (Petroleum Business) and coordination within the petrochemical complex
- Paraxylene production facilities located adjacent to the world's largest demand market, China

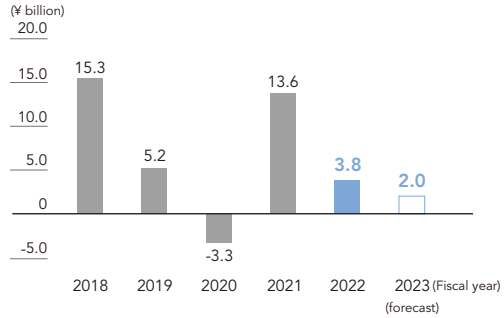
1 Photoresist: Photosensitive material used in photolithography to create fine patterns on semiconductor devices, etc.
2 EUV (Extreme Ultraviolet): A next-generation light source used in exposure technology for semiconductor manufacturing

FY2022 results and FY2023 forecast

In FY2022, ordinary profit decreased ¥9.8 billion year on year to ¥3.8 billion due mainly to a decline in sales volume owing to deteriorating olefin market conditions. Additionally, Maruzen Petrochemical partially shut down manufacturing equipment at its Chiba Plant in May due to the expected long-term decline in product market conditions and other factors. Conversely, in the field of specialty chemicals, we enjoyed favorable business performance due to strong customer demand, resulting in increased sales in this segment compared to the previous fiscal year.

In FY2023, we project ordinary profit of ¥2.0 billion, down ¥1.8 billion year on year, due to deteriorating market conditions. In addition to continuing to make necessary capital investments in photoresist polymers, Maruzen Petrochemical's propylene rectifying tower, which commenced commercial operation in 2022, is expected to yield synergies between the Petroleum Refining and Petrochemical businesses, benefitting the Cosmo Energy Group as a whole.

Segment ordinary profit



We will enhance competitiveness and work toward carbon neutrality in the basic chemicals sector, while expanding revenue in chemical products and specialty chemicals such as photoresist polymers.



Toshiomi Baba
President, Representative Director and CEO
Maruzen Petrochemical Co., Ltd.

Petrochemical Business

Business strategy

Key concepts of the Seventh Consolidated Medium-Term Management Plan

1. Realize high uptime and high-efficiency operations
2. Expand production of chemical products
3. Increase production of semiconductor photoresist resins

1 Realize high uptime and high-efficiency operations

We will continue to make appropriate investments to achieve high uptime and high-efficiency operations, including obtaining Super Accredited Operator certification (planned for FY2024), promoting digital transformation (DX) and smart factories to enhance competitiveness in the manufacturing process, and ensuring a safe and stable operational foundation. In addition, we will also deepen collaboration between our Petroleum Refining and Petrochemical businesses and strengthen competitiveness by taking measures such as optimizing production through oil refining and petrochemicals and effectively utilizing unused fractions.

2 Expand production of chemical products

We are confident in securing steady revenue by expanding the production of chemical products. We will increase the production of methyl ethyl ketone (MEK) by converting unused fractions, currently consumed as in-house fuel, into feedstock. Additionally, we will boost the production of eco-friendly products such as Mercazole R (Isododecane).

3 Increase production of semiconductor photoresist resins

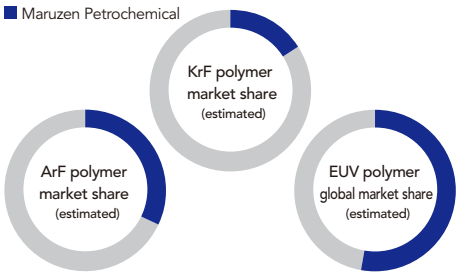
In response to increased sales of thick-film photoresist resins and ArF[1] resins used in semiconductor photoresists, we are actively increasing our production facilities and ensuring a stable supply of raw materials. This will help build our production capacity as we look ahead to 2024 and 2025. In addition, we will focus on human resource acquisition and development to prepare for facility expansion in line with rising demand.

1 ArF (argon fluoride) is an excimer laser used as an exposure light source with a wavelength of 193nm.



Cutting-edge photoresist polymer manufacturing facility exterior

Photoresist polymer market shares



Key strategies under the Seventh Consolidated Medium-Term Management Plan

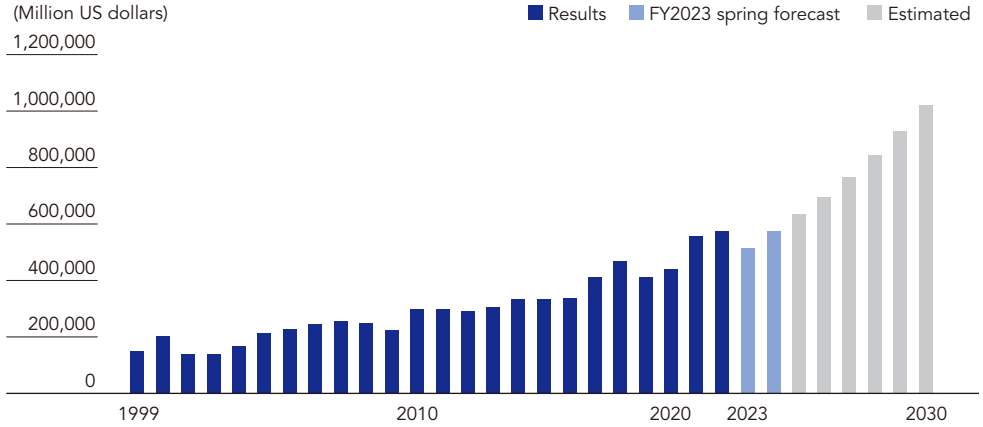
Maruzen Petrochemical will further expand its lineup of chemical products and specialty chemicals, which have grown into key revenue drivers. In the chemical products business, we are witnessing robust demand for MEK, which is used as a paint and ink solvent, as well as a resin finishing solvent. To meet this demand, we will implement measures to increase production, including securing raw materials from unused fractions that were previously consumed as fuel.

Moreover, as the sustainability and ethical movements gain momentum, we expect to see an increase in demand for eco-friendly products. For instance, there is growing demand for the use of Mercazole R (Isododecane) in cosmetics as a substitute for certain chemicals impacted by the EU REACH regulation*. We plan to increase and expand our facilities to meet the demand for increased production. The specialty chemicals business, as one of the *New* field pillars under "Oil & New," is an area we are particularly committed to. With demand for photoresist polymers expected to grow at approximately 10% per year, it is imperative that we strengthen our capabilities, secure raw materials, and focus on acquiring and developing the necessary human resources to meet this demand. We are planning to increase production for thick-film photoresist resins and ArF resist resins. Additionally, for EUV resist polymers, for which demand is expected to grow going forward in line with advancements in cutting-edge technology, we have established and commenced operation of new manufacturing facilities.

In our research division as well, we are collaborating with Cosmo Oil to pursue environment-related themes aimed at achieving carbon neutrality. We are also working in conjunction with our business divisions to develop new business themes that expand upon our existing operations. These efforts are aimed at achieving commercialization while creating both social and economic value.

*EU (European Union) regulation on the Registration, Evaluation, Authorization, and Restriction of chemicals

Semiconductor market forecast



*Created by the Cosmo Energy Group with reference to World Semiconductor Trade Statistics (WSTS) forecasts

OIL EXPLORATION AND PRODUCTION BUSINESS



Overview

The Oil Exploration and Production Business (hereafter, "Oil E&P Business") is a revenue driver within the Cosmo Energy Group's business portfolio. The Group is promoting safe and stable operations in existing concession areas in the core area of the Middle East, centered on Abu Dhabi in the United Arab Emirates (UAE) and the State of Qatar, with which we have built long-standing relationships of trust.

Identified risks

- Risk of stranded assets associated with the shift to a fossil fuel-free society
- Risks related to crude oil prices and production
- Risk of accidents in oil fields and at production facilities
- Risks related to exploration and development

Opportunities

- Realization of a stable energy supply during the period of transition to decarbonization
- Expectations for global advancements in and popularization of CCS and CCUS* technologies
- Potential for collaboration with oil-producing countries in the field of decarbonization

*CCS: Carbon Capture and Storage
CCUS: Carbon Capture, Utilization, and Storage (use of separated and stored CO_2)

Competitive advantages

- Strong relationship with the Emirate of Abu Dhabi
- Highly competitive oil fields through in-house operations
- Advantages in CCS/CCUS*

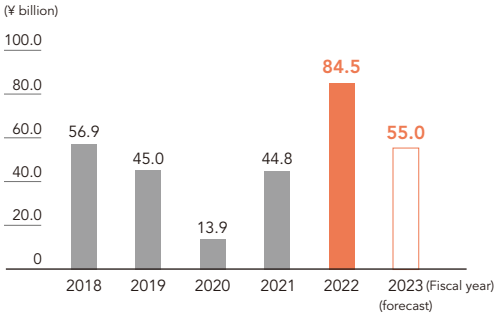


FY2022 results and FY2023 forecast

In FY2022, ordinary profit increased ¥39.7 billion year on year to ¥84.5 billion due to a rise in crude oil prices (Dubai crude oil price between November 2021 and October 2022: US$95/barrel, up US$26/barrel year on year), offsetting a decrease in sales volume.

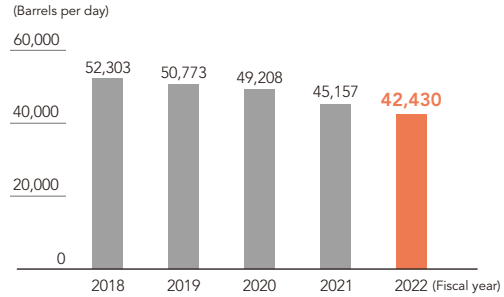
In FY2023, ordinary profit is projected to decrease by ¥29.5 billion year on year to ¥55.0 billion due to the impact of falling crude oil prices (assumed Dubai crude oil price between November 2022 and October 2023: US$83/barrel, down US$12/barrel year on year).

Segment ordinary profit

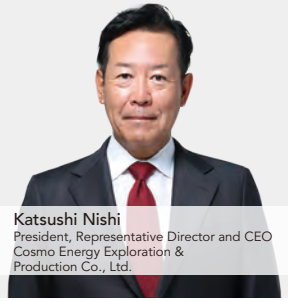


Crude oil production volume

*Production volume is the total for key oil development companies: Abu Dhabi Oil, Qatar Petroleum Development, and United Petroleum Development.



In addition to our achievements in crude oil development spanning half a century, we strive to expand business based on our relationships of trust with Middle Eastern oil-producing countries.



Katsushi Nishi
President, Representative Director and CEO
Cosmo Energy Exploration & Production Co., Ltd.

Oil Exploration and Production Business

Business strategy

Key concepts of the Seventh Consolidated Medium-Term Management Plan

1. Strengthen profit structure further based on safe and stable operations
2. Generate additional projects with a focus on actualizing exploration in existing concession areas and undeveloped projects
3. Consider measures to realize decarbonized businesses and explore ways to achieve low carbonization

1 Strengthen profit structure further based on safe and stable operations

With a focus on safe and stable operations, we aim to maximize production volume through measures such as waterflooding (reservoir pressure recovery through water injection) in the Hail Oil Field and maintaining and enhancing production facility processing capacity in other existing oil fields. Simultaneously, we will work towards streamlining operational costs and reducing the cost per barrel, with the ultimate goal of improving profitability.

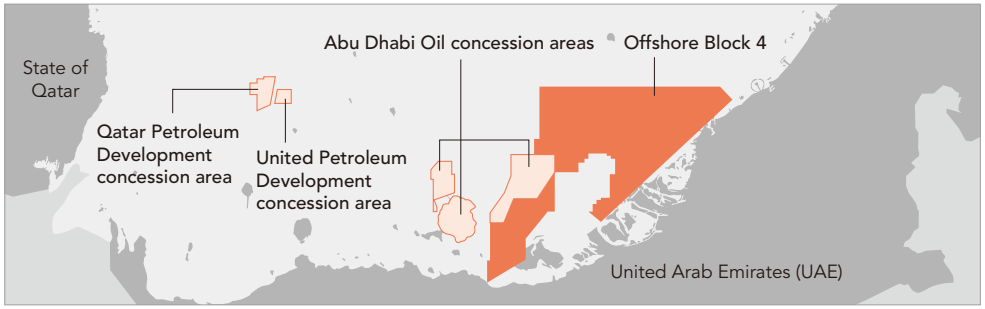
2 Generate additional projects with a focus on actualizing exploration in existing concession areas and undeveloped projects

In an effort to improve crude oil recovery rates in our concession areas, we will undertake various initiatives, including exploration and development activities in Offshore Block 4, a concession area located in the Emirate of Abu Dhabi in the United Arab Emirates, which we acquired in 2021. Additionally, we will implement strategies to address the decline in production levels in our existing operational oil fields.

3 Consider measures to actualize decarbonized businesses and explore ways to achieve low carbonization

To realize the Group's goal of net zero carbon emissions by 2050, we will proactively explore business and technology development in fields that are compatible with our Oil E&P Business, such as CCS/CCUS and geothermal power generation. In our operating companies, we will continue our efforts to operate in an environmentally conscious manner, with a focus on reducing CO_2 emissions and zero-flaring operations.

Cosmo Energy Group concession areas



Key strategies under the Seventh Consolidated Medium-Term Management Plan

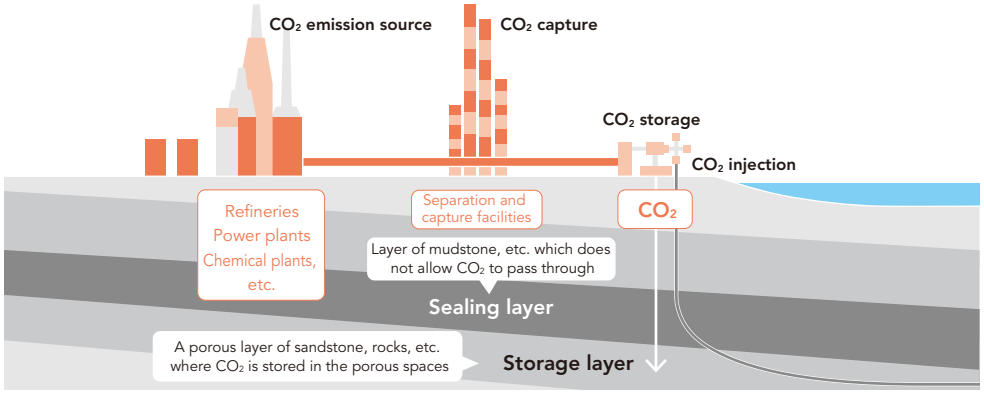
Amid a broader societal shift towards decarbonization and energy transition, the Oil E&P Business must meet energy demand during this transitional period. From an energy security perspective as well, it has an important social mission to fulfill in terms of continuing to ensure a stable energy supply. The Group aims to maximize production swiftly by implementing water flooding techniques in the Hail Oil Field and maintaining and enhancing processing capacity in the production facilities of existing oil fields. Our target is to achieve crude oil production of 45,000 barrels per day by FY2025.

In addition, we aim to achieve ordinary profit of ¥90.0 billion for the Oil E&P Business in FY2025 by optimizing operational costs and reducing cost per barrel while capitalizing on the cost competitiveness of the Group's oil fields.

From the perspective of maximizing production volume, in addition to these efforts, we will explore the development potential of our own concession areas to improve crude oil recovery rates. In particular, in the exploration area, Offshore Block 4, we will vigorously advance exploration and evaluation activities to determine the reserves and commercial potential of oil and gas.

We will actively explore areas that are compatible with our Oil E&P Business in order to realize decarbonized businesses and achieve low carbonization. Especially in the case of CCS/CCUS, based on the memorandum of understanding signed with the Abu Dhabi National Oil Company (ADNOC) in 2022, we will continue joint investigations to assess the feasibility of CCS/CCUS in the Emirate of Abu Dhabi.

CCS process



RENEWABLE ENERGY BUSINESS



Overview

In the Renewable Energy Business, specifically the wind power generation business, Group company, Cosmo Eco Power, has been a pioneering force in Japan since its inception in 1997. Looking ahead, we plan to grow our wind power generation business, and as a Group, expand development of new renewable energy sources, such as solar power generation, and sales of green electricity. Additionally, we aim to strengthen our green electricity supply chain by building supply-demand adjustment and energy storage systems.

Identified risks

- Changes to government policies and systems related to renewable energy
- Decline in profitability resulting from intensified competition
- The domestic offshore wind power generation industry is still in its infancy and not yet mature

Competitive advantages

Onshore wind power

- Third-largest market share in Japan (with a capacity of about 300MW, spanning over 25 locations)
- Industry-leading utilization rate through strong in-house technical capabilities in wind turbine maintenance and the installation of failure prediction systems

Offshore wind power

- Commenced commercial operations of offshore wind power generation in Akita Prefecture
- Partnered with Iberdrola, S.A. to acquire overseas expertise

Opportunities

- Renewable energy will be the main power source as we look to achieve carbon neutrality by 2050
- Adjustment function centered on storage batteries to address market volatility resulting from the expansion of renewable energy
- Government-led promotion of wind power generation (including power grid development, changing rules on power feeding, and the easing of regulations)
- Diversification of electricity customers due to the transition from the FIT scheme[1] to the FIP scheme[2]
- Expansion of the onshore wind power market (expected total capacity: 15.9GW[3] in 2030)
- Expansion of the offshore wind power market (establishing projects with a total capacity of 10GW by 2030 and 30GW to 45GW, including floating wind turbines, by 2040[4])

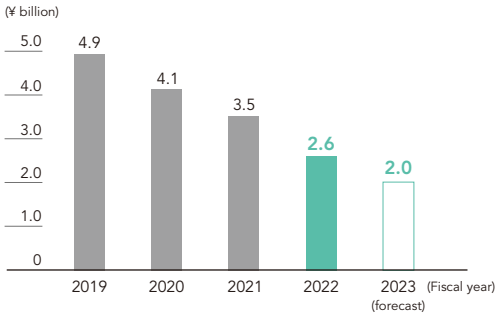
1 Under the Feed-in Tariff (FIT) scheme, the Japanese government guarantees that power companies will be able to purchase electricity generated from renewable sources at a fixed price for a specified period with the aim of promoting the adoption of renewable energy.
2 Under the Feed-in Premium (FIP) scheme, in addition to the revenue from selling electricity, a subsidy is provided to power generation companies. When electricity is sold to the market, the income from selling electricity can vary due to market price fluctuations. However, the payment of a premium helps ensure a certain level of income for power generation companies. Since revenue may vary depending on the method of electricity sales, this system encourages power generation companies to be mindful of market price fluctuations attributable to the supply-demand balance.
3 Source: Ministry of Economy, Trade and Industry, Energy Supply and Demand Outlook for FY2030 (Related Documents), October 2021
4 Source: Ministry of Economy, Trade and Industry, Basic Energy Plan, October 2021)

FY2022 results and FY2023 forecast

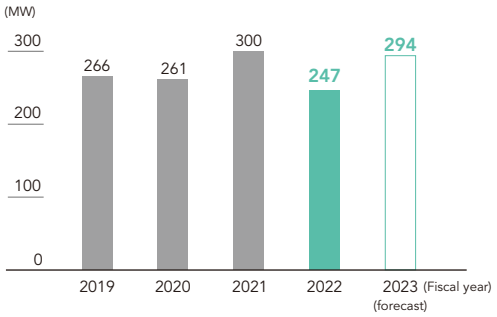
In FY2022, net sales were ¥12.2 billion, down ¥0.9 billion year on year, and ordinary profit was ¥2.6 billion, down ¥0.9 billion year on year, due to unfavorable wind conditions, despite achieving the highest-ever utilization rate.

In FY2023, although we are planning upfront investments for capacity expansion and further improvements in operations and maintenance, and forecast ordinary profit to decrease ¥0.6 billion year on year to ¥2.0 billion, we will steadily advance the business to achieve capacity exceeding 1,500MW.

Segment ordinary profit



Wind power plant capacity



We will continue our efforts to realize a sustainable society through the expansion of our wind power generation business.



Masayoshi Noji
President, Representative Director and CEO
Cosmo Eco Power Co., Ltd.

Business strategy

Key concepts of the Seventh Consolidated Medium-Term Management Plan

1. Increase renewable energy generation capacity (acquire offshore wind farms and expand onshore wind farms)
2. Build a supply-demand adjustment function that helps strengthen the green electricity supply chain

1 Increase renewable energy generation capacity (acquire offshore wind farms and expand onshore wind farms)

The Cosmo Energy Group aims to become a leading company in a carbon-neutral society by achieving a combined capacity of over 1,500MW in onshore and offshore wind power by 2030. In onshore wind power, we aim to achieve a power generation capacity of over 900MW by 2030 through development of new facilities and the replacement of existing ones. In offshore wind power as well, we aim to establish a strong business foundation and achieve a power generation capacity of over 600MW by 2030.

2 Build a supply-demand adjustment function that helps strengthen the green electricity supply chain

Due to the increasing use of renewable energy sources, the power grid has become less stable. Also, global resource prices have remained high, leading to a surge in electricity prices. This has resulted in increased price volatility in the wholesale electricity market, and there are high expectations in terms of the role of storage batteries in ensuring grid stability. In the future, we will continue to develop renewable energy, with a focus on wind power generation, to address societal challenges and establish a supply chain to optimally adjust and supply green electricity. As renewable energy becomes a main power source, we will utilize storage batteries with a regulating function to replace thermal power generation in providing grid stabilization, contributing to the further integration of renewable energy into the grid.

Key strategies under the Seventh Consolidated Medium-Term Management Plan

Commencement of Kamiyuchi Wind Farm and Oita Wind Farm operations

In line with our commitment to promoting renewable energy, we have been making significant progress in terms of our onshore wind farm development initiatives. Notably, in April 2023, we commenced operations at two key sites: the Kamiyuchi Wind Farm in Hokkaido (capacity: about 49MW) and the Oita Wind Farm in Oita Prefecture (capacity: about 14MW). The Mutsu Ogawara Wind Farm in Aomori Prefecture (capacity: about 33MW) and the Iwaya Wind Park, also in Aomori Prefecture (capacity: about 27MW), are set to begin operations in FY2024. This achievement came after a replacement period that began in March 2023, resulting in a shorter construction period of just two years instead of the planned three. Our commitment to FIT-certified projects, such as the Abukuma Minami Wind Farm in Fukushima Prefecture (capacity: about 89MW)* and the Chuki No. 2 Wind Farm in Wakayama Prefecture (capacity: about 39MW), remains steadfast. Through these efforts, we aim to achieve a power generation capacity of over 900MW by 2030.

In the offshore wind power business, we commenced operations in January 2023 at the Akita Port and Noshiro Port offshore wind farms in Akita Prefecture (capacity: 140MW)*. For offshore wind power projects, operators are selected through public bidding. As of July 2023, preparations are underway for operator selection from among the 14 sea areas designated as promotion or promising areas. We aim to establish a solid foundation in our offshore wind power business and achieve a power generation capacity of over 600MW by 2030.

*Total project capacity

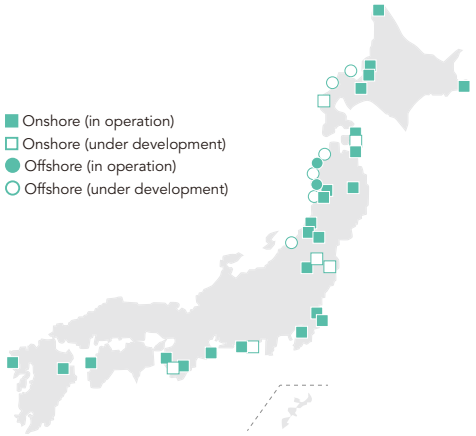
Outlook for energy storage projects

We plan to install and validate solar power generation and grid-connected storage batteries on Group premises from FY2023 to FY2024.

We will charge the storage batteries during the daytime when solar power generation peaks to reduce the burden on the power grid, which becomes unstable, and discharge them during high demand times, such as in the evening when power companies often struggle to meet demand. This will contribute to the stabilization of the power grid. We will also consider the optimal combination of battery storage systems relative to the scale of power procurement from solar power generation in the future.

Going forward, as the government proceeds with the design of detailed systems and with the prospect of profitability being ensured through factors such as a decrease in equipment installation costs, we will work on acquiring expertise through this validation project and commercializing energy storage solutions.

Map of wind farms in Japan




Oita City, Oita Prefecture


Kamiyuchi City, Hokkaido


Akita City, Akita Prefecture


Noshiro City, Akita Prefecture

COSMO REPORT 2023

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Special Interview | Sustainable Management

Sustainability in an energy company working to meet the challenge of realizing net zero carbon emissions



Shigeru Yamada

Representative Director, Group CEO

Miho Kurosaki

Climate Change and ESG Specialist

Miho Kurosaki graduated from the Faculty of Economics at Keio University. After obtaining her Master of Science in Environmental Technology from Imperial College London, she went on to work in survey analysis in the fields of climate change and ESG where she provides data and analysis-based surveys, as well as advice, to businesses, investors, and the national government. Until 2021, she worked for BloombergNEF (BNEF), Bloomberg's climate change research arm, overseeing analysis of Japanese energy policies and their economic efficiency. She has served as an expert on various government committees and is currently Vice President of Energy Impact Partners.

Special Interview

Changes in the external environment and the global trend toward carbon neutrality

Yamada In May 2021, the Company declared it would achieve net zero carbon emissions by 2050. Towards this goal, we established Vision 2030, which lays out the vision for our company in 2030, as well as the Seventh Consolidated Medium-Term Management Plan (hereafter, "the Seventh MTMP") which began in FY2023. Although the direction of our decarbonization efforts has not changed, 2050 is still a very long way off. We must be aware of wide ranging and ever-changing trends in countries around the world. These trends include regulations, as well as changes in investor and consumer awareness. Additionally, as the situation in Ukraine began immediately before the formulation of the Seventh MTMP, the Company, as energy companies deeply involved in global energy trends, remain vigilant and keenly aware that the management decision-making and actions we take hereafter will have a huge impact on our enterprise value in the next decades. As uncertainties remain high, I believe it is vital for us to keep flexibility when it comes to making changes and additions even when this applies to our business strategy. At the same time, we will be keeping a close watch on what is happening all around us.



Kurosaki The situation in Ukraine was a huge shock to the world for several reasons. For Europe, supplies of Russian natural gas were cut and this led to an accelerated shift toward renewable energy within Europe. For the US, the budget for combating climate change accumulated under the IRA[1]. These effects gave us a clearer picture of the different moves being made in each region, such as in Europe and North America. In addition, there is large movement in regard to China, and I believe that Japanese companies are struggling with how to manage the situation. On the other hand, to help drive the shift to a carbon-free world, we are beginning to see frameworks for evaluating decarbonization and financing initiatives. With these developments, we are also seeing companies in the financial services industry actively seeking to deepen their knowledge about energy. We are in the midst of a huge period of transformation where we must maintain the balance of energy supply and demand while making future-minded investments, etc. The exacerbation of natural disasters caused by climate change has inspired stakeholders across the globe to become keenly aware of climate-related issues and how these are being addressed. In recent years, there has been a global demand for action towards the 1.5°C scenario to prevent crossing the critical climate threshold. Even if we reach zero carbon dioxide emissions in 2050, since residual greenhouse gas (GHG) emissions will remain, activities to remove carbon dioxide will be essential. Although initiatives such as those listed in your Vision 2030, including making renewable energy a main power source, carbon-neutral fuels, and CCS/CCUS[2], are challenging, I believe that we are currently in the most crucial moment for taking them on.

Yamada Since the situation in Ukraine began, and from the standpoint of energy security as well, I really feel the importance of realistic initiatives to achieve carbon neutrality. It is vital that we promote steady decarbonization while continuing to fulfil our role as an energy provider.

Kurosaki Yes, I agree. There are a great number of companies who are saying that 2023 is the year to start taking steps toward carbon neutrality. In fact, in 2022 alone, oil companies invested some US$33.0 billion[3] in decarbonization. Until now there was active investment in the electric power sector, but recently, investments in electric power and carbon-neutral fuels, such as hydrogen, are split approximately 50-50. This development is one we must watch carefully. Looking at these figures,

1 IRA (Inflation Reduction Act): Law passed in the US in 2022 to curb inflation and promote swift measures for energy security and to combat climate change.
2 CCS: Carbon Capture and Storage technologies // CCUS: Carbon Capture, Usage and Storage
3 Source: BloombergNEF

we can discern that oil companies are making use of the knowledge and expertise they have gained over the years to develop decarbonized businesses in all corners of the globe.

Yamada The unavoidable cost incurred during this period of energy transition raises concern about weakening industrial competitiveness compared to China and India. However, while initial investments will be costly, I believe there will come a time when we can provide green electricity and next-generation energy at the same cost as fossil fuels. Already in Europe, there are cases where the price of green electricity is the same, or less expensive, than fossil fuels.

Kurosaki In China and India, against the backdrop of a massive market size, the introduction of renewable energy is increasing at a rapid pace. Pricewise, it is likely that China and India will have an edge in terms of industrial competitiveness in the short term. However, as we have seen in the example of the EU approval and introduction of the Carbon Border Adjustment Measure, we can expect to see the global spread of carbon pricing, in which the amount of carbon emitted in the production process is taxed. With this, I believe that industrial competitiveness will return to developed countries. Also, an issue facing Japan is that the country's energy transition promotion measures and subsidy systems are not as robust as those of other countries. We are seeing a rise in consumer awareness about carbon neutrality due to the IRA providing a significant incentive in the US and the sufficient subsidies provided in Europe to replace home heat pumps or switch to green electricity, as well as for efforts involving home insulation, etc.

Commitment to bolstering the green electricity supply chain

Yamada The theme of Vision 2030 is: *To create energy that shapes the future, energy that sustains society, and new forms of value.* Under this vision, we plan to invest ¥400.0 billion in *New* fields, such as green electricity and next-generation energy by 2030. Regarding the first pillar of our vision, *Bolstering the Green Electricity Supply Chain*, the Group has been involved in onshore wind power generation for quite a while and commands the third largest domestic share. Moving forward, we would like to expand our wind power generation businesses even further, including offshore wind power generation. In addition, when considering the shift in electric power sales from FIT to FIP[4], we plan to begin validating our power storage business since supply-demand adjustment capabilities will be crucial in the future. Furthermore, we anticipate that our large-scale network of existing Petroleum Business customers will become prospective customers for green electricity in the future. For this reason, we will bolster our own independent supply chain that integrates power generation, supply-demand adjustment, and electric power sales. As set forth in the Seventh MTMP, we plan to invest ¥140.0 billion in *New* fields over three years.

Kurosaki Looking at your medium-term management plan, I sensed your company's strong commitment based on the fact that planned investment in *New* fields increased more than fourfold between the Sixth MTMP to the Seventh. I thought your



company has made a significant change in course. As an analyst, I was quite familiar with your company's projects and I recognize that Japanese wind power generation businesses require long-term assessments and constitute a highly challenging field. I also serve as an independent advisor for the RE100[5] initiative and believe that based on the increase in RE100 member companies we can estimate that demand for green electricity will increase and thereby make green electricity supply chains a particularly important field. Until now, the challenge for many of the companies operating green electricity businesses was gaining new customers, but your

4 FIT: Feed-in Tariff; scheme in which renewable energy producers receive a fixed price for their energy // FIP: Feed-in Premium; scheme in which renewable energy producers receive a premium in addition to market price.

5 RE100: Global initiative committed to procuring 100% renewable electricity for electricity consumed during the course of business activities.

Special Interview



company has a huge advantage in that you have already built up an extensive customer network.

Yamada The challenges we face in terms of bolstering our green electricity supply chain lie in the supply-demand adjustment area. Therefore, the plan for our electricity storage business is to start small in the form of a demonstration project and accumulate various data.

Kurosaki I agree that supply-demand adjustment is the most difficult part of green electricity businesses. As Japan also sees long-term carbon-free power source market growth and companies seek 100% renewable energy sources, it will be hard to satisfy these needs. I think it comes down to how energy storage businesses, as you just mentioned, are utilized. I work with a climate tech venture capital firm and we observe various companies that seek renewable electric power 24 hours a day, 365 days a year. Storage batteries are vital in trying to meet this need. Charging and discharging of lithium storage batteries takes approximately four hours, but in the Japanese market, costs are extremely high, and few market incentives exist. This situation makes for a reality where not many good business models exist. Currently underway in the US is a 100 hour-storage battery technology project using technology provided by one of the businesses in our portfolio. To reduce costs, the electric power company handling the project applied to a subsidy program run by the US Department of Energy. Since the Japanese government still offers few incentives, I think it's also important for you to engage with them as you pursue your energy storage business.

Yamada If we don't provide a stable supply of green electricity and push to make it a main power source, the goal of net zero carbon emissions will be difficult to achieve. We aim to bolster our green electricity supply chain and work to forge a new path forward.

Kurosaki I am hopeful that you will.

Initiatives for next-generation energy expected to experience a sharp increase in global demand

Yamada The second pillar of Vision 2030 is the *Expansion of Next-generation Energy*. The Group aims to mass-produce Japan's first domestically produced SAF[6] and in June 2023, we began construction of a large-scale pilot production facility inside the Sakai Refinery. We established joint venture SAFFAIRE SKY ENERGY LLC for this project and, in 2025, we plan to produce 30,000 kiloliters of SAF per year, made from waste cooking oil. However, as this is only one tenth of the amount of SAF the Group aims to produce, we aim to establish a 300,000 kiloliter-per-year supply system in 2030 by producing SAF using highly efficient ATJ technology[7] developed by US-based LanzaJet, Inc. Going forward, in addition to entering the hydrogen supply chain market and commencing discussions about turquoise hydrogen[8] production technology, we would like to be involved in the utilization of ammonia fuel and research and development for synthetic fuels.

Kurosaki As it appears that the demand for both cargo and passenger flights will not decrease, the importance of alternative fuels cannot be

6 SAF (Sustainable Aviation Fuel): fuel produced mainly from biomass-derived raw materials, including plants, as well as waste and waste cooking oil from restaurants and households. It enables the reduction of carbon dioxide emissions compared to fossil fuels.

7 ATJ (Alcohol-to-Jet) technology: uses a catalytic process to turn ethanol into SAF.

8 Turquoise hydrogen: hydrogen produced from natural gas via direct pyrolysis that uses a medium such as plasma. Solid carbon, not carbon dioxide, is produced as a by-product, and thus is not released into the atmosphere.

overstated. I have high expectations for your SAF production project. Furthermore, as we have seen no decrease in shipping demand, shipping fuel will likely shift from heavy oil to LNG, methanol, and ammonia going forward. The trend towards alternative fuels is seen not only in the aviation industry but in all areas of transportation. With this in mind, I would recommend that while excelling in the SAF field, you also continue to expand businesses that would respond to the next key field.

Yamada I also consider ammonia fuel to be of the utmost importance. In fact, the Group is carrying out initiatives such as a demonstration project aimed at the practical application of ammonia fuel, as well as an effort to charter ships able to carry not just LPG, but also ammonia. However, with ammonia, there are concerns that there is an overwhelming lack of blue and green hydrogen[9] used in the production process. If we produce ammonia with blue or green hydrogen, I am unsure if we will be able to achieve a quantitative balance. Also, since blue and green hydrogen are not just used for ammonia production, they are utilized in a wide variety of fields as carbon-neutral fuels, and the amount required would likely be considerable.

Kurosaki Precisely. I think that there will be competition for hydrogen. If you consider that green hydrogen is produced using renewable energy, as well as that the demand for renewable energy in the field of electric power already exists, it is likely that some regions won't be able to use that renewable energy for hydrogen production. Furthermore, in addition to the needs of those who want to produce methanol using green hydrogen, and bearing in mind that ammonia is most often used as fertilizer to begin with, we are looking at the possibility that the competition not just for green hydrogen, but for its feedstock, which is renewable energy, will only get worse. There is also the issue of cost competition, and it is anticipated that the battle for renewable energy will begin where it is cheapest. At the same time, many different blue hydrogen production technologies have emerged, and while the situation is quite chaotic, the field itself can still be seen as moving forward. Not limited to the shipping industry either, ammonia is viewed as a promising hydrogen carrier and ammonia cracking technologies are garnering considerable attention as well. In short, I think we're in the process of trying to see which is the most efficient and affordable.

Facing the challenge of energy transition with a people strategy that motivates employees and harnesses their skills

Kurosaki Your Seventh MTMP is truly visionary and I'm really looking forward to the business developments that come with realizing your Vision 2030. Green electricity and next-generation energy are, of course, necessary technologies or fields, as attested to by the increasing need for them by companies and consumers. In terms of your Petroleum Business, as the Intergovernmental Panel on Climate Change (IPCC) states in their assessment report that CCS and CCUS are vital technologies, I believe that while these technologies are costly, a range of innovations in the near future will push them forward. I am eager for your contributions to decarbonization in your main line of business as well.

Yamada Realizing net zero carbon emissions is a huge priority for us and that will not change. In this period of great transformation that is energy transition, it is essential that we focus investments in the Group's areas of strategic focus in anticipation of the external environment and societal demand. The demand for green



9 Blue hydrogen: hydrogen produced mainly from natural gas using CCUS technology, without releasing carbon dioxide as a by-product into the atmosphere.
Green hydrogen: hydrogen generated through electrolysis of water using electric power produced from renewable energy sources.

Special Interview

electricity and next-generation energy will undoubtedly increase rapidly, so, looking ahead, I'd like to continue to further refine our business plan, including the next medium-term management plan.

Kurosaki Regarding investments, the transition finance movement in Japan is becoming increasingly strong. Overseas, however, the movement has less momentum due to concerns about greenwashing which can sometimes, depending on the case, damage a company's brand. On the other hand, when it comes to GX bonds, investors are making different moves.

Yamada Investing in an age of great energy transformation, including forecasting feasibility and estimated energy recovery, is exceedingly difficult, but I'd like to add upfront investments, such as in moonshot projects and breakthrough technologies, to our plans. Clearly, there are some things that a single company cannot accomplish, so we believe that having support from the government, etc., makes it easier to take that step. As laid out in the basic policies of our Seventh MTMP, we plan to not only make conventional investments, but also investments that contribute to strengthening non-financial areas of our business, such as in HRX, DX, and GX. When it comes to carrying out technological innovations, DX, and GX, it is our *people* that are most important, as they are the ones who drive these transformations. That's why we are determined to focus on human resource development and enrichment.

Kurosaki When trying new things, human resources are most crucial, with innovations in corporate culture coming next. I'm sure that your strong determination for human resource development will filter down to your employees. Previously, when I was an ESG analyst, I reviewed the indicators of many different companies. True assessments of changes in human resources and corporate culture are difficult to express, but personally, I found that dialogue is most effective when working with organizations like ESG rating agencies, etc. Dialogue with your employees is, of course, a great way to improve engagement as well. People strategy is on your agenda over the medium- to long-term and I hold high hopes for these initiatives.

Yamada Since being appointed Group CEO, I've been visiting our refineries and other business sites one by one and talking directly to employees there. Doing so and engaging in dialogue has allowed me to experience firsthand the level of passion that employees have. They all have this immensely powerful energy. I believe that one of our biggest strengths as a company is that our employees agree with the broad direction that the Group is moving in and are self-motivated. Going forward, I will continue to focus on a people strategy that motivates employees and harnesses their skills so we are able to live up to the powerful words of advice you gave us and to the expectations you hold.



Sustainable Management at the Cosmo Energy Group

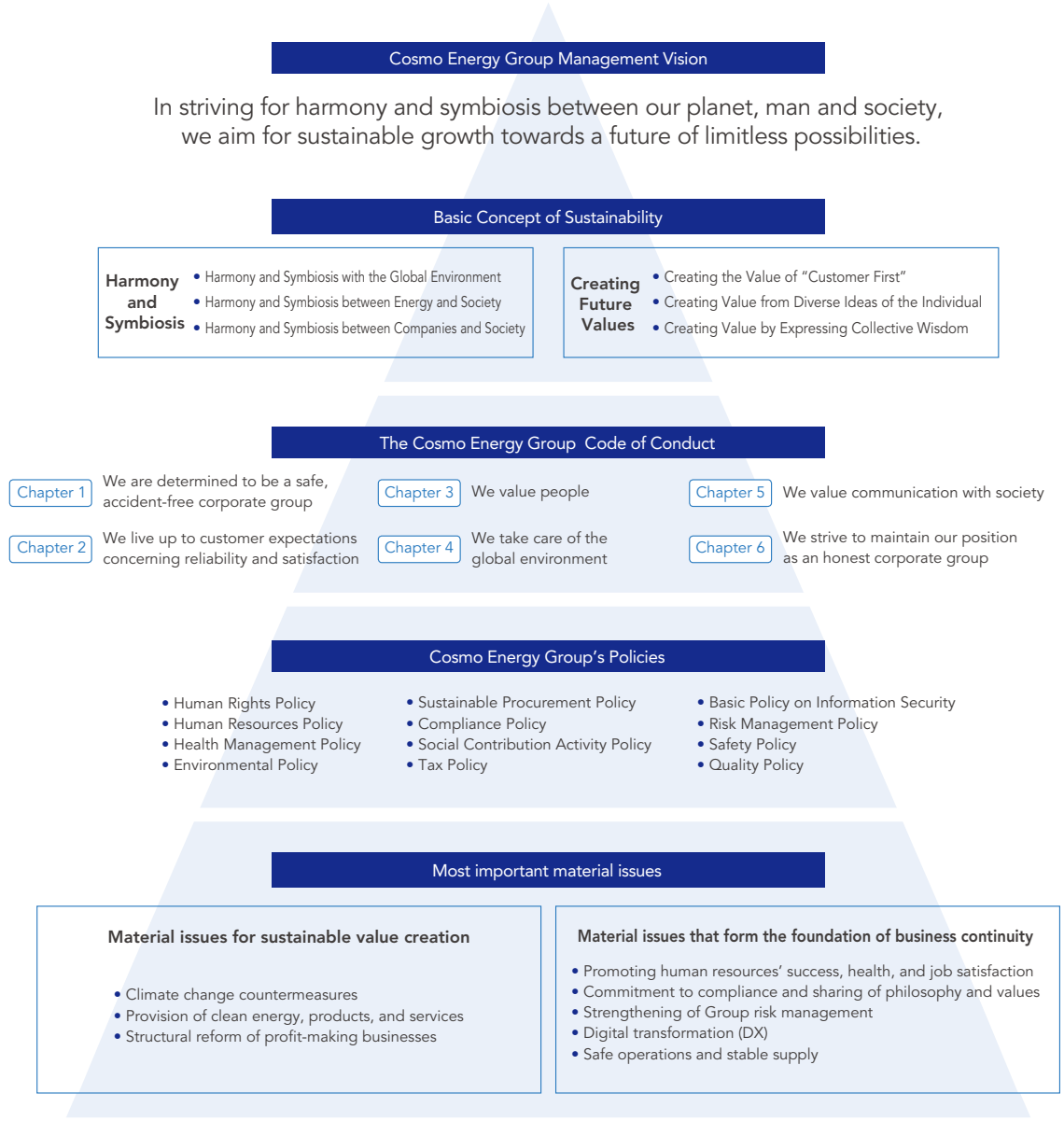
The Cosmo Energy Group Management Vision—In striving for harmony and symbiosis between our planet, man and society, we aim for sustainable growth towards a future of limitless possibilities—incorporates our desire for the sustainable growth of our Group and society. The "Harmony and Symbiosis" and "Creating Future Values" included in our Group Management Vision constitute our Basic Concept of Sustainability and show our determination to promote sustainability in our management.

As a group, we have always strived to help realize a sustainable society through our businesses, and to achieve sustainable growth within the Group. The Cosmo Energy Group Code of Conduct, incorporated into our Group Management Vision, is the cornerstone of our sustainability and serves as the foundation for the actions and values of all employees.

In March 2021, to further strengthen our sustainable management efforts, we identified the 10 most important material issues on the way to our vision for the Company in 2050. We reviewed the issues in April 2023, combining some and adding others, and are currently working to address the eight most important material issues.

Under the Seventh Consolidated Medium-Term Management Plan, we are working towards integrating financial and non-financial initiatives based on material issues, and are undertaking efforts toward this goal based on established KPIs. Regarding climate change countermeasures, one of the most important material issues, we unveiled the 2050 Carbon Net Zero Declaration, and in May 2022, we released a roadmap to achieve this end. Going forward, we will continue to promote sustainable management through the Group's business activities, aiming to sustainably enhance enterprise value and solve societal challenges.

*See page 51 for further information on the Cosmo Energy Group's most important material issues.



Message from the Executive Officer in Charge of Sustainability



By approaching our business from both financial and non-financial perspectives, we will realize enhanced enterprise value and grow and develop sustainably along with society.

Takayuki Uematsu

Representative Director, Senior Managing Executive Officer
In charge of Sustainability Initiative Dept., Accounting Dept. and Finance Dept.

Sustainable management kicks into high gear

The Cosmo Energy Group's sustainable management efforts were officially launched under the Sixth Consolidated Medium-Term Management Plan (hereafter, "the Sixth MTMP"), and with that, we have made strides toward sustainable management in our corporate structure through various initiatives, including establishing the Sustainability Initiative Department and setting up the Sustainability Strategy Committee, a non-financial decision-making body. This committee, chaired by the CEO, convened five times in FY2022 and discussed a range of topics regarding ESG (Environmental, Social, and Governance). One such topic is the improvement of our corporate philosophy system. Since more than 20 years ago, sustainability has been at the core of our business operations, as stated in the Cosmo Energy Group Management Vision, and we have consistently placed great importance on environmentally-focused management. The pursuit of sustainable value enhancement and development based on this management vision is none other than the cornerstone of sustainability at the Cosmo Energy Group. In our Sustainability Strategy Committee meetings, we steadily moved forward with the reevaluation of our internal control system, including the reworking of our corporate philosophy system grounded in our Group Management Vision.

Evolving and promoting sustainable management

In the Sixth MTMP, for the material issues (high-priority issues) identified in the medium term, we backcasted from our vision of how we want the Group to be, set KPIs, and implemented the PDCA cycle for our initiatives. Looking at our achievements for FY2022, we further evolved sustainable management in terms of operations as well, such as linking the assessment of these results with executive remuneration.

Regarding the Seventh Consolidated Medium-Term Management Plan (hereafter, "the Seventh MTMP"), given that there is a gap between what we presently recognize as issues and the material issues we have addressed for the past two years, we carried out a reevaluation of our material issues in April 2023 in order to promote more effective initiatives. In this reevaluation, we identified the following sustainability-related priority issues: three material issues for creating sustainable value and five material issues that will form the foundation of our business continuity. As for each of the non-financial KPIs set for every material issue, in addition to thoroughly evaluating our level of target achievement, we will also analyze our progress based on environmental changes, as well as discuss the validity of our goals at Sustainability Strategy Committee meetings.

The road to realizing net zero carbon emissions in 2050

With the growing sense of crisis regarding climate change and the acceleration of decarbonization across the globe, the Cosmo Energy Group announced its 2050 Carbon Net Zero Declaration which aims to bring greenhouse gases emitted in our business operations to net zero by 2050. At the same time, we have identified climate change countermeasures as a critically important material issue. We have established KPIs as this is a high-priority issue that our entire group must work for.

When we announced the Seventh MTMP, we declared that we would expand our carbon net zero efforts to our supply chains and aim for net zero carbon emissions, including Scope 3. In order to realize this goal, the transformation of management itself is crucial. Therefore, in the Seventh MTMP, in addition to listing Green Transformation (GX) as one of our strategies, we also describe our contribution to decarbonization in our business strategy. Under the Seventh MTMP, the Cosmo Energy Group will work as one to take on the challenges that lie ahead on the road to carbon net zero.

Engagement with stakeholders

In FY2022, we worked to engage in active dialogue with our investors and disclose information in the area of sustainability through measures such as our ESG Large Meeting. In these times of increasing uncertainty, I believe that sustainable management is a vital practice to boost management resilience. We will meet your expectations by working for the sustainable development of society and the Cosmo Energy Group by aiming for sustainable enterprise value enhancement, listening to our stakeholders, and continuing dialogue and collaboration.

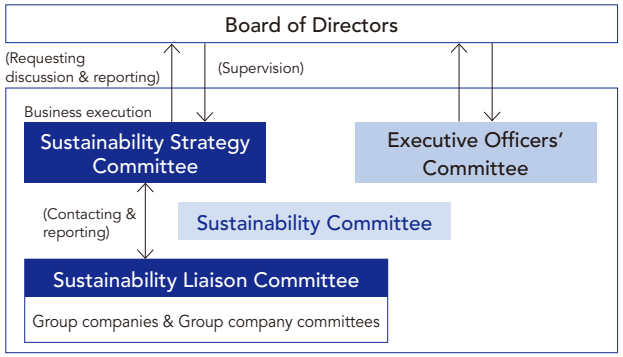
Initiatives to Promote Sustainability

Sustainability Strategy Committee

Aiming to realize our Group Management Vision, the Company has established a Sustainability Strategy Committee and a Sustainability Committee as organizational structures to oversee sustainability-related activities, including internal controls. The Sustainability Strategy Committee is composed of top executive officers, including the Group CEO, as well as the CEOs and executive officers in charge of sustainability at the three core operating companies. Directors who are members of the Audit and Supervisory Committee attend as observers. The Sustainability Strategy Committee promotes more focused and proactive initiatives by discussing policies for sustainability activities, including safety, risk management, human rights, and the environment, monitoring and evaluating performance, and reporting important matters to the Board of Directors. In FY2022, the Sustainability Strategy Committee met five times and discussed 14 agenda items, of which nine were reported to the Board of Directors for deliberation and further discussion. Committees have also been established at each core operating company and semi-core operating company* according to their respective functions. These committees work with the Company's Sustainability Strategy Committee to ensure that all Group companies are on the same page.

*For information on core operating companies and semi-core operating companies, please refer to the Report Scope on page 86.

Governance system driving sustainability



Main themes discussed by the Sustainability Strategy Committee in FY2022

April 20, 2022	7th meeting	· 2050 Carbon Net Zero Declaration roadmap
June 3, 2022	8th meeting	· Corporate Governance Code response policy · Report on achievement of FY2021 non-financial KPIs
September 5, 2022	9th meeting	· Establishment of Safety Policy and Quality Policy · Vision for material issues and direction of sustainability strategy in the Seventh MTMP · Status of Cosmo Energy Group's risk management initiatives
December 8, 2022	10th meeting	· Review of material issues and setting of KPIs · First half year FY2022 (April-September) progress report on non-financial KPIs · Report on implementation of human rights due diligence process
March 2, 2023	11th meeting	· The Seventh MTMP: Non-financial KPIs · Establishment of Risk Management Policy

Raising awareness of ESG internally

Members of the Company's senior management team explain the background and importance of ESG initiatives during in-house training sessions, and we proactively utilize internal newsletters, our intranet, and other media to ensure that the message reaches and is understood by employees. In FY2022, we held three study sessions for management to foster an understanding of sustainable management. We are working to improve sustainability literacy by offering e-learning and workshops to provide insights and deepen understanding of how we can contribute to solving societal challenges through our businesses.

Participation in the UN Global Compact

The Cosmo Energy Group has participated in the Global Compact advocated by the United Nations since 2006. By supporting 10 principles related to human rights, labor, the environment, and anti-corruption, we incorporate an international perspective, commit ourselves before society to promoting sustainable management, and aim to further improve our sustainability activities.

Information disclosure: ESG assessment

Cosmo Energy Holdings has been included in the FTSE4Good Developed Index, one of the world's leading ESG investment indices, for 21 consecutive years since it became the first Japanese oil company to be included in the index in 2003.

Furthermore, for seven consecutive years, we have been a constituent of the FTSE Blossom Japan Index, which is selected by the Government Pension Investment Fund (GPIF) as an ESG investment index.

In 2023, the Company was included in the Empowering Women Select Index (known as "WIN"), devised by the US company MSCI based on women's employment data disclosed under the Act on Promotion of Women's Participation and Advancement in the Workplace. In addition, we have been selected for SOMPO Asset Management's SOMPO Sustainability Index, which was independently established by combining ESG assessments and stock valuations, for seven consecutive years*.

*Includes years up to FY2019, when we were a constituent of the SNAM Sustainability Index.

FTSE Blossom Japan

FTSE4Good

FTSE Blossom Japan Sector Relative Index

2023 Sompo Sustainability Index

2023 CONSTITUENT MSCI JAPAN EMPOWERING WOMEN INDEX (WIN)

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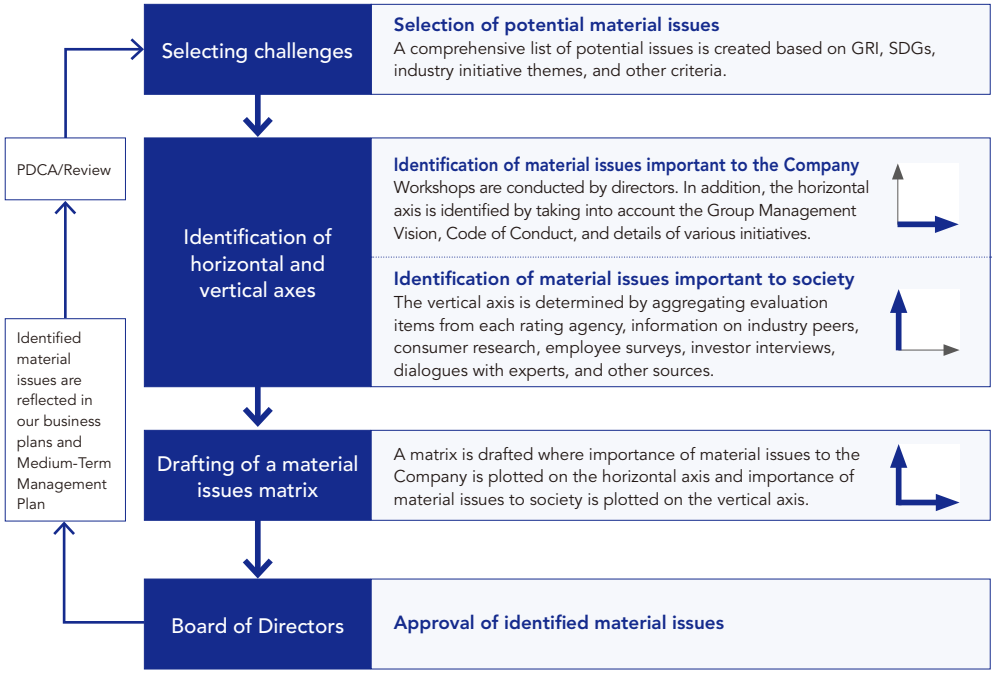
Material Issues of the Cosmo Energy Group and Results of the Consolidated Medium-Term Sustainability Management Plan

Material issue identification process

In March 2021, the Cosmo Energy Group identified 10 important ESG challenges (material issues) that will influence the sustainable development of society and our Group, including our medium- to long-term enterprise value, as we build the society we envisage in 2050. In April 2023, we combined some issues and added others, revising the number to eight. With regard to material issues for sustainable value creation, we will promote activities under the "Oil & New ~ Next Stage ~" slogan of the Seventh Consolidated Medium-Term Management Plan from the perspective of societal challenges as well. These activities will be underpinned by material issues that form the foundation of business continuity.

The Group has set KPIs for each material issue and working on addressing them.

Material issue identification process



Most important material issues

Material issues for sustainable value creation

Climate change countermeasures	Provision of clean energy, products, and services	Structural reform of profit-making businesses

Material issues that form the foundation of business continuity

Promoting human resources' success, health, and job satisfaction	Commitment to compliance and sharing of philosophy and values	Strengthening of Group risk management	Digital transformation (DX)	Safe operations and stable supply

Results of Consolidated Medium-Term Sustainability Plan (FY2018-2022)

During the period of the Sixth Medium-Term Management Plan (FY2018-2022), we established KPIs based on material issues and implemented the Consolidated Medium-Term Sustainability Plan (hereafter, "the Sustainability Plan").

E

Unveiled 2050 Carbon Net Zero Declaration and roadmap to achieve net zero carbon emissions

CO_2 emissions target: -16% (vs. FY2013) → Actual: -8% (high operating rate due to supply to Kygnus Sekiyu K.K.)

S

Established our Human Resources Policy and various development measures, including the active participation of diverse human resources

Target proportion of females in managerial roles: 6% → Actual: 6.7% (as of April 1, 2023)
Target ratio of females among new university graduate hires: 50% → Actual: 60%
*Professional staff (date of hiring: April 1, 2023)

G

Appointed female executive officers and increased the number of independent outside directors to ensure diversity among directors

Ratio of female directors at start of MTMP: 0/10 → FY2022: 3/9
Independent outside directors: 2/10 → 4/9

KPIs for Material Issues in the Seventh Consolidated Medium-Term Management Plan

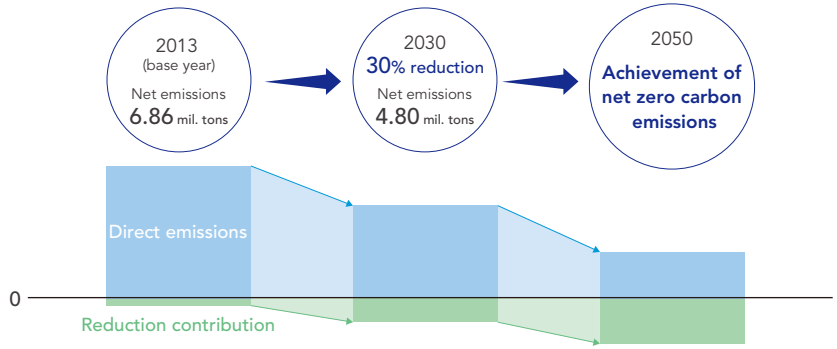
	Material issues	Vision for the future	KPIs	Related SDGs
Material issues for sustainable value creation	Climate change countermeasures	• GHG emissions are managed appropriately • Progress has been made toward achieving net zero carbon emissions by 2050	• 30% reduction in emissions by FY2030 (vs. FY2013) • CO_2 emissions reduction (Scope 1, 2) • CO_2 offset amount	
	Provision of clean energy, products, and services	• Clean fuel that meets customer needs has been developed and is supplied • We have become a leading company in domestic renewable energy generation • Clean products have been developed and are being provided across the entire value chain • Technologies and services that support low carbonization and decarbonization have been developed and are being supplied	• Amount of clean fuel supplied and supply ratio • Wind power generation facility capacity • Other renewable energy generation facility capacity • Construction of a green electricity supply chain • Amount of next-generation raw materials supplied • Sales excluding fossil fuels • R&D expenses and investment in new businesses	
	Structural reform of profit-making businesses	• Business profits are generated in a decarbonized society by investing profits from existing businesses in new businesses • Enterprise value is being enhanced through new businesses centered on clean technology	• Investment in *New* businesses	
Material issues that form the foundation of business continuity	Promoting human resources' success, health, and job satisfaction	• All employees can demonstrate their abilities to the fullest, regardless of age, gender, nationality, job type, affiliation, or work history • Decisions are made through dynamic discussions that incorporate diverse opinions • Overwork and harassment are prevented, and employees can work healthily and with peace of mind • Employees take the lead in managing their own physical and mental healthcare, and manage and improve their health • Employees autonomously improve and utilize their strengths and expertise to implement business strategies • Employees are energetic and challenge themselves, and enjoy continuous growth with job satisfaction and fulfillment	• Proportion of females in managerial roles • Ratio of females among new university graduate hires • Percentage of employees who have taken a stress check (mental health) • Percentage of employees who have received lifestyle health guidance (physical health) • Investment in employee education and training • Employee awareness survey "work satisfaction/ pride" score	
	Commitment to compliance and sharing of philosophy and values	• Laws, regulations, and social norms are observed • Officers, employees, and other staff members understand and observe the Group Management Vision, policies, and internal regulations • The Cosmo Energy Group Code of Conduct and policies are widely understood and individuals are able to make appropriate decisions	• Number of compliance violations • Employee awareness survey scores for "compliance education," "awareness of consultation helplines," and "understanding of Code of Conduct"	
	Strengthening of Group risk management	• Both the Company's operational risks and strategic risks (including opportunities) can be identified, and risks are appropriately hedged or taken • Serious risks for the entire Group are understood and managed	• Risks associated with CEG priority initiatives are additionally monitored • Risks associated with priority initiatives undertaken by each company are monitored	
	Digital transformation (DX)	• A corporate culture that uses digital technology to change work processes and continuously pursue innovation is being fostered to bring about business transformation • Efforts are being made to improve internal and external CX (customer experience) by providing customers and employees with solutions to solve internal and external challenges centered on data utilization	• Cultivation of core digital personnel	
	Safe operations and stable supply	• Employee injuries are prevented • Plant accidents and product (quality) accidents are prevented • Operations are carried out so they do not threaten the safety of the operating area or surrounding residents • A stable supply of energy is provided, even during disasters and emergencies	• Number of work-related accidents • Number of accidents • Number of accidents with an impact on the environment • Number of days when supply was impossible	

Climate Change Countermeasures

Our Basic Concept of Sustainability is "Harmony and Symbiosis with the Global Environment," and we have undertaken a variety of initiatives with the goal of becoming an environmentally conscious group of energy companies. With efforts to reduce greenhouse gases (GHG) garnering attention worldwide, the Cosmo Energy Group has announced its 2050 Carbon Net Zero Declaration. In this section, we introduce our environmental initiatives and activities, including energy conservation efforts.

GHG emission targets and reductions

GHG emission targets and reductions



*Our Group reports Scope 1 and Scope 2 greenhouse gas (GHG) emissions and reductions.

While fulfilling its responsibility to provide a stable supply of energy, the Cosmo Energy Group aims to reduce emissions from its business operations (Scope 1 and 2) by 30% in 2030 compared to FY2013. We will do this by converting to zero-carbon energy and utilizing negative emissions technologies. Furthermore, to contribute to the carbon neutrality of society as a whole, we seek to achieve net zero carbon emissions, including Scope 3, by 2050.

Priority themes for achieving carbon net zero

In addition to working on converting to zero-carbon energy and using negative emissions technologies, we will contribute to carbon neutrality of society as a whole by working on producing and supplying energy that shapes the future.

- Direct reductions
- Bolstering of green electricity supply chain
- Use of carbon credits
- Use of negative emissions technology
- Working on next-generation energy and raw materials

Roadmap for Achieving Net Zero Carbon Emissions by 2050
https://www.cosmo-energy.co.jp/en/actions/sustainability/environment/gl-warming/netzero-roadmap.html

Efforts to reduce GHG emissions

Our Group has always considered the reduction of GHG emissions to be an important challenge and has been working to reduce CO_2 emissions throughout the supply chain.

Actual CO_2 emissions in FY2022, the final year of the Sixth Medium-Term Management Plan, totaled 6.92 million tons, a 7.2% reduction compared to FY2013 (target 16% reduction). Although CO_2 emissions per unit of production improved due to efficiency improvements in the manufacturing division, crude oil processing exceeded targets set out in our plan due to increased sales, and the operation of facilities to enable expansion of our Renewable Energy Business (wind power generation) was partially delayed until FY2023, affecting their contribution to CO_2 reduction.

Under our Group's Seventh Medium-Term Management Plan, we will make further efforts to reduce GHG emissions based on our Roadmap for Achieving Net Zero Carbon Emissions by 2050.

Cosmo Energy Group's CO_2 emissions (10,000 tons CO_2)[3]

	FY2013	FY2018	FY2019	FY2020	FY2021	FY2022
Transportation division (crude oil, raw materials, and products)	90	81	75	71	77	84
Manufacturing division (petroleum and petrochemicals)	676	620	650	631	662	651
Other (service stations, research centers, etc.).	4	2	2	3	2	1
Biofuel (blended with ETBE)[1]	-7	-14	-13	-14	-17	-19
Expansion of renewable energy (wind power generation)[2]	-16	-24	-27	-25	-27	-24
Subtotal: CO_2 emissions	746	665	688	666	697	692
GHG emissions other than CO_2	2	2	2	2	2	3
Total: GHG emissions	747	667	690	668	699	695

1 The amount due to biofuels is the CO_2 emissions reduction due to the contributions of ethyl tert-butyl ether (ETBE)-blended gasoline, which is considered to have negative CO_2 emissions.
2 Expansion of renewable energy has been calculated using the total power generation volume multiplied by the alternative value for each year.
3 Refer to the Cosmo Energy Holdings' corporate website (Japanese) for information on the differences in the methods for aggregating CO_2 emissions in "Cosmo Energy Group's CO_2 Emissions" and "Environmental Impact in Business Activities," disclosed on the sustainability website.

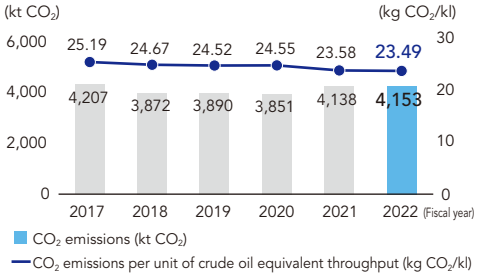
Cosmo Energy Group Greenhouse Gas Emissions (available in Japanese only)
https://ceh.cosmo-oil.co.jp/csr/environment/gl_warming.html#gl_worning09

Energy conservation at refineries

In FY2022, the energy consumption rate improved around 0.4% year on year due to the promotion of energy-saving activities (including the introduction of a system optimizing the utility balance) and the improvement of refinery operating rates attributed to a reduction in failures and the number of maintenance days. However, CO_2 emissions increased approximately 0.4% year on year due in part to the improvement of refinery operating rates mentioned above.

We will continue to strive for energy conservation both physically (through the use of high-efficiency equipment) and non-physically (by pursing energy-efficient operations).

CO_2 emissions and CO_2 emissions per unit of crude oil equivalent throughput



Promoting wind power generation and contributing to the reduction of CO_2 emissions

Wind power is an eco-friendly, clean energy that does not emit CO_2 during generation and eliminates concern over resource depletion. The total wind power generation capacity of Cosmo Eco Power Co., Ltd., a Cosmo Energy Group company, was over 300 MW as of June 30, 2023, contributing to CO_2 emissions reduction and to improvement in the energy self-sufficiency rate of Japan, which is highly dependent on imported energy. We plan to continue developing new onshore wind farms and proactively entering the offshore wind power generation business.

Successful transition to electricity that is virtually all from renewable energy sources at 603 sites, including directly-operated service stations

As the first step towards the Group's achievement of net zero carbon emissions, in May 2022, we completed the transition to electricity that is virtually all from renewable energy sources at all of the service stations operated by Cosmo Oil Sales Corporation. We initially planned to complete the switch over three to five years beginning in May 2021, when we announced this project, but actually completed it much earlier, about one year after the announcement. We are the first oil wholesaler in Japan to begin to switch to electricity that is virtually entirely from renewable energy sources at more than 600 locations.

By utilizing the Cosmo Denki (Electricity) Business Green scheme, Cosmo Oil Sales operates all of its service stations, vehicle inspection centers, and other such sites[1] using electricity generated virtually entirely from renewable energy (approximately 40 million kWh annually)[2].

1 589 out of 603 directly-operated service stations as of May 31, 2022
2 Excluding CO_2 emissions from the use (consumption) of fuel oil and other products sold at service stations

Maruzen Petrochemical: Fuel switch initiative

In a Green Innovation Fund Project that was publicly tendered by NEDO*, Maruzen Petrochemical Co., Ltd. is working on developing advanced naphtha cracking furnace technologies for producing raw materials for plastics using CO_2 and other sources through the practical application of ammonia fuel in naphtha cracking furnaces. This work is being undertaken jointly with Mitsui Chemicals, Inc., Toyo Engineering Corporation, and Sojitz Machinery Corporation. The naphtha cracking furnaces at ethylene plants traditionally use methane as their main fuel, but by switching to ammonia, we aim to almost entirely eliminate CO_2 emitted during combustion. The project will last 10 years from FY2021 to FY2030, with plans to complete validation using an ammonia combustion furnace in the final fiscal year. The four participating companies, with their knowledge and technical capabilities in ethylene plants gained through plant operation, construction, and equipment manufacturing, aim to make ammonia combustion furnaces a feasible alternative for society and contribute to the reduction of CO_2 emissions throughout the petrochemical industry.

*NEDO: New Energy and Industrial Technology Development Organization

Initiatives related to CCS/CCUS

To achieve net zero carbon emissions, the petroleum development division is expected to apply CCS/CCUS* and CO_2-EOR technologies to reduce and effectively utilize CO_2 in the exploration blocks for which we hold concessions. In 2001, our Group became the first in the Middle East to achieve zero-flare operations, in which all the gas generated during crude oil production is re-injected into the oil reservoir. This kind of technology, which achieves both environmental conservation and improved crude oil recovery through injection of associated gas, is highly compatible with CCS/CCUS, and our strength is that we have technologies and expertise in related fields. With the aim of collaborating on CCS/CCUS*, the Cosmo Energy Group agreed in 2022 to launch a joint study with Abu Dhabi National Oil Company (ADNOC). Together we will assess the feasibility of CCS/CCUS in the Emirate of Abu Dhabi and we have signed a memorandum of understanding to that effect. Based on our strong relationship of trust with the Abu Dhabi government, including ADNOC, we will consider developing new technologies, evaluating business feasibility, acquiring knowledge, and creating opportunities for collaboration regarding new CCS/CCUS initiatives.

*CCS: Carbon Capture and Storage
CCUS: Carbon Capture, Utilization, and Storage (utilization of separated and stored carbon)

Climate Change Countermeasures

TCFD

Climate change has a significant impact on society, and the Cosmo Energy Group views it as an important societal challenge.

Against this backdrop, in December 2020, the Company declared its support for the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD). To maintain good communications with a wide range of stakeholders, including shareholders and investors, we have organized our approach to climate change based on the framework of the TCFD recommendations.

(Available in Japanese only)
https://www.cosmo-energy.co.jp/ja/actions/sustainability/environment/gl-warming/tcfd.html

Short-, medium-, and long-term climate change-related risks and opportunities and their impact on our businesses

Item	Type	Changes in business environment	Expected impact on Cosmo Energy	Time span	Impact level when risk emerges
Transition risks	Policies/ regulations	Introduction of carbon pricing	Manufacturing cost increase	Medium- to long-term	**High**
		Many countries strengthen carbon regulations	Increased cost of purchasing emission credits, investing in energy-saving equipment	Medium- to long-term	**High**
	Technology	Development of low-carbon and clean technologies	Decline in petroleum product demand due to spread of EVs and alternative fuels	Short- to medium-term	Medium
	Industry/ Market	Change in energy mix, shift to low-carbon electricity sources	Increased costs due to rising renewable energy prices	Short- to medium-term	**High**
		Change in energy demand due to move away from fossil fuels	Decrease in income due to lower demand for petroleum products	Short- to medium-term	**High**
	Reputation	Change in customer behavior	Decline in enterprise value due to delayed response to decarbonized society	Medium- to long-term	**High**
		Investor assessment	Accelerated divestment from petroleum business	Medium- to long-term	Medium
Physical risks	Chronic	Higher ocean level and tsunamis	Increased cost of investment in disaster prevention measures	Long-term	Low
	Acute	Abnormal weather (storm and flood damage)	Increased costs due to typhoon-caused stoppages or breakdowns	Short- to medium-term	Medium
Oppotunities	Resource efficiency	Transition to a resource recycling society	Increased demand for environmental impact Expansion of chemical recycling business	Medium- to long-term	-
	Energy sources	Changes in energy demand due to move away from fossil fuels	Increased demand for renewable energy (wind power generation business) Increased demand for low-carbon energy	Short- to medium-term	-
	Products and services	Changes in customer behavior	Expansion of EV-related service business Expansion of car sharing and other new service businesses	Short- to medium-term	-
	Market	Developments in low-carbon and clean technologies	Expansion of CO_2 emission reduction business due to developments in CCUS technologies	Medium- to long-term	-
	Resilience	Investor assessment	Investment in renewable energy and other businesses	Short- to medium-term	-
		Abnormal weather (typhoon and flood damage)	Reputation among business partners for maintaining a stable supply during disasters	Short- to medium-term	-

Scope: Oil Exploration and Production, Petroleum Refining and Sales, Electric Power (Renewable Energy, IPP), Petrochemical
Time span: Short-term = within 1 year, medium-term = within 1-5 years, long-term = 5-20 years
Impact level when risk emerges: Low = less than ¥1.0 billion, medium = ¥1.0 billion or more but less than ¥10.0 billion, high = ¥10.0 billion or more

Strategy

To realize a carbon-neutral society by 2050, the Cosmo Energy Group considers the risks and opportunities presented by climate change and is actively undertaking climate change countermeasures, such as expanding its wind power generation business and reducing GHG emissions. Regarding predictable climate change risks and opportunities in our business activities, we envision changes in the business environment due to external factors and consider their importance based on the climate change risk items in the TCFD recommendations.

Going forward, we will continue to ensure disclosure in accordance with TCFD recommendations and build a system that is integrated with our management strategy.

Risk management

Please refer to the Risk Management section on page 66 for information on the Group's approach to risk management.

Regarding risks related to climate change, we have established a framework for ongoing discussion by the Sustainability Strategy Committee, as this is an important management agenda for all Group companies. We implement these measures to enhance our comprehension of risks and assess our response.

Indicators and targets

Regarding climate change-related risks, the Cosmo Energy Group has made "reducing GHG emissions" a priority on its agenda. We set a CO_2 reduction target of 16% (vs. FY2013) for FY2022, the final year of the Sixth Consolidated Medium-Term Management Plan. As a long-term GHG reduction target on the way to achieving net zero carbon emissions by 2050, we aim to reduce emissions from our own operations (Scope 1 and 2) by 30% (vs. FY2013) by 2030. Our policy is to aim for net zero carbon emissions, including Scope 3, in an effort to help achieve carbon neutrality throughout society as a whole by 2050.

Provision of Clean Energy, Products, and Services

The Cosmo Energy Group is committed to the most important material issue of "provision of clean energy, products, and services," which we aim to do by developing and offering clean fuels that meet customer needs, and by developing and providing technologies and services that support low carbonization and decarbonization.

Contribution to decarbonization in the aviation sector through next-generation aviation fuel

In the aviation industry, the ICAO[1], at its general meeting held in 2016, set the target of "keeping total CO_2 emissions from international aviation at or below the 2019 level from 2021 onwards." The use of SAF[2] is seen as the most promising means of reaching this target. In Japan as well, the public and private sectors are working together to promote the uptake of SAF, aiming to achieve the government's target of replacing 10% of all fuel consumed by domestic airlines with SAF by 2030.

In this environment, the Group has set a SAF supply target for 2030 at 300,000 kiloliter-per-year and is working towards achieving that capacity. In November 2022, we established SAFFIARE SKY ENERGY LLC, a joint venture with JGC Holdings Corporation and Revo International Inc., to produce SAF at Cosmo Oil's Sakai Refinery using waste cooking oil as feedstock. Facility construction for this, Japan's first SAF mass production project, began in June 2023, with annual production of about 30,000 kiloliters scheduled to start in FY2024. We will accelerate efforts to build a domestic SAF supply chain while diversifying raw materials and manufacturing processes. One possibility under consideration is the use of Alcohol-to-Jet (ATJ) technology, which uses ethanol as feedstock.

1 ICAO: International Civil Aviation Organization
2 SAF: Sustainable Aviation Fuel

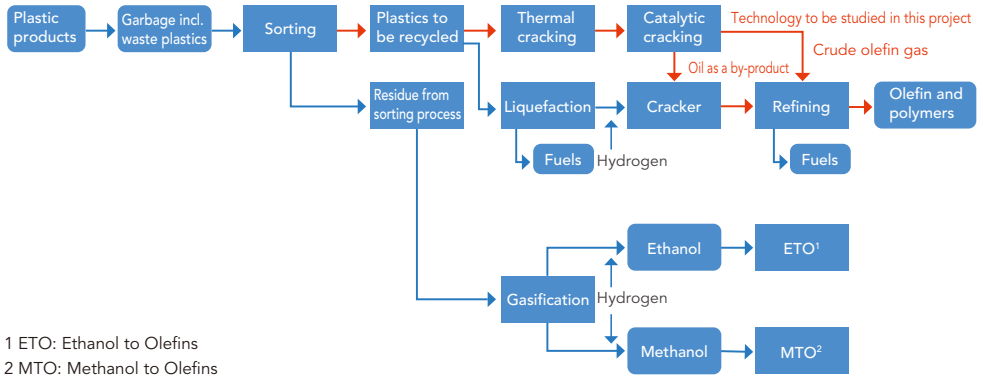
Development of chemical recycling technology by Maruzen Petrochemical

Maruzen Petrochemical is collaborating with Sumitomo Chemical Co., Ltd. in the development of technology for manufacturing chemicals from waste plastics and waste rubber. In this project, which was selected as the second NEDO Green Innovation Fund project, we are working on the development of chemical recycling technologies that enable the manufacture of olefin through the direct decomposition of waste plastics. This initiative aims to establish technology to efficiently manufacture olefin from waste plastics, and it has the advantage of reducing CO_2 emissions during olefin manufacturing compared to conventional methods. As a result, we can contribute to reducing plastic waste, which is incinerated, reducing the use of fossil resources as raw materials, and even reducing greenhouse gas emissions during the manufacturing process.

In particular, the development of highly efficient chemical recycling technologies for polyolefin plastics, which account for about 60% of domestic waste plastics, is highly anticipated. In response, the two companies are applying the technology and expertise that they have accumulated to establish a chemical recycling technology that will enable highly efficient, direct manufacturing of ethylene, propylene, and other raw materials for basic chemical products from polyolefin plastic. They will then work for the early societal uptake of that technology. The project will run for 10 years from FY2021 to FY2030, with Sumitomo Chemical and Muroran Institute of Technology, a joint project partner, developing a new catalyst that will decompose waste plastic into olefin gas. Maruzen Petrochemical is responsible for considering the eventual use of that gas as a feedstock for basic chemical products such as ethylene and propylene.

By striving to supply CO_2-free petrochemical products in the future, we seek to support carbon neutrality throughout the entire supply chain, including our business partners.

Conceptual diagram of the "Development of Technology for Producing Chemicals from Waste Plastics and Rubber" project



1 ETO: Ethanol to Olefins
2 MTO: Methanol to Olefins

Provision of Clean Energy, Products, and Services

Joint development of stable supply technologies for next-generation energy

Cosmo Oil has concluded a comprehensive partnership agreement with Kyoto University to study the joint development of technologies for the stable supply of next-generation energy. One example is carbon capture and utilization (CCU), which converts CO_2 into a valuable resource. Through joint research on carbon fixation technology for CO_2 using molten salt electrolysis, we will work to verify the feasibility of technology that converts CO_2 into a carbon material without using hydrogen. We also plan to verify the applicability of this technology to CO_2 emitted from Cosmo Oil's refineries and other facilities.

In other areas, we will consider the use of various technologies, such as technologies essential for the stable supply of next-generation energy and negative emission technologies, and examine specific ways to create businesses that utilize the technologies and expertise cultivated by both parties to help bring us closer to realizing net zero carbon emissions.

Cosmo Zero Carbon Solution is released

Cosmo Oil Marketing has rolled out Cosmo Zero Carbon Solution, a product offering a one-stop solution that helps corporations and local governments to introduce renewable energy and electric vehicles (EVs), etc., as a way to help achieve a decarbonized society. The Company offers a package of four services: 1) Cosmo Denki (Electricity) Business Green; 2) the installation of solar panels for in-house power consumption; 3) car leasing; and 4) EV car sharing. Driving a leased EV charged with green electricity easily and reliably reduces CO_2 emissions without incurring initial costs. By expanding EV car sharing to nearby residents and corporations, customers can reduce costs and contribute to the local community. Furthermore, EVs can also serve local communities as mobile storage batteries for use during disasters.

Since launching Cosmo Zero Carbon Solution in September 2021, we have started supplying Cosmo Denki (Electricity) Business Green to numerous ministries and local governments, including facilities under the jurisdiction of the Ministry of the Environment, such as the Kokyo Gaien National Garden. The cities of Yokosuka and Zushi, Kanagawa Prefecture, are not only customers of Cosmo Denki (Electricity) Business Green, but, in February 2023, they also introduced an EV car sharing service.

In addition to the four services now offered, we will consider future offerings that focus on energy conservation, electricity saving, and environmental value.

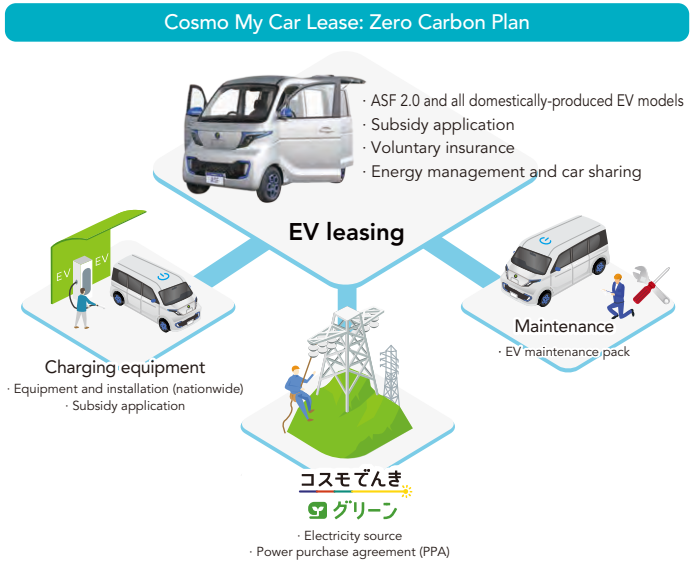
The Cosmo Energy Group will support the efforts of corporations and local governments to solve challenges and create a decarbonized society through Cosmo Zero Carbon Solution, which leverages our unique strength by packaging the Group's business assets to provide a one-stop solution.

Development of EV car sharing and our mobility business

Cosmo Oil Marketing is working to create new mobility services centered on EVs. In April 2021, the company began providing EV car sharing at Self Pure Shinjuku Chuo. The rapid charging equipment is powered by virtually 100% renewable electricity derived from Cosmo Eco Power's wind power, allowing customers to charge their EVs with virtually CO_2-free electricity. Furthermore, EVs emit no CO_2 while being driven, which makes this car sharing service environmentally friendly.

In June 2021, we entered into a capital and business alliance agreement with ASF Inc. (hereafter, "ASF"), which plans, develops, manufactures, and sells EVs. Beginning on May 31, 2023, Cosmo My Car Lease started offering the light commercial EV "ASF2.0," manufactured by ASF. Up until now, we have provided maintenance packs for engine powered vehicles as part of Cosmo My Car Lease, but in response to wider electrification and the shift towards EVs, we have started offering maintenance packs for EVs.

As we respond to customer needs by expanding the introduction of EVs, we will develop our existing mobility business with the goal of achieving net zero carbon emissions in the future, aiming to achieve further growth and contribute to the environment.



Provision of Clean Energy, Products, and Services

Sales of Cosmo Denki (Electricity) Green

Cosmo Denki (Electricity)[1], which is sold to households by Cosmo Oil Marketing, is available in four plans to meet the diverse needs of customers. In December 2021, we began selling a plan for all-electric homes.

Due to growing interest in and demand for renewable energy in recent years, Cosmo Denki (Electricity) Green provides virtually CO_2-free electricity[2] with environmental value derived from renewable energy for customers seeking environmentally friendly electric power. Also, it enables anyone to support the COSMO Eco Fund's eco-friendly projects that focus on themes such as environmental preservation and environmental education.

Furthermore, our lineup for corporate customers includes Cosmo Denki (Electricity) Business Green, a product that will contribute to the realization of a carbon-neutral society. As of October 2022, the number of facilities to which we supply this product exceeded 1,000 locations. Cosmo Denki (Electricity) Business Green plans include a plan that uses Cosmo Eco Power's wind-derived electric power that is compliant with RE100, an international initiative that aims to ensure that 100% of the electric power used by businesses is renewable energy.

1 Cosmo Denki (Electricity) is offered with Cosmo Energy Group company, Cosmo Energy Solutions, serving as the electricity retailer and Cosmo Oil Marketing as its distributor.
2 Electricity with environmental value and certified as non-fossil. It is derived from renewable energy such as wind power generated by Cosmo Eco Power.

Examples of local governments to which we have started supplying electric power derived from virtually 100% renewable energy



Chigasaki City Hall



Yokosuka City Museum



Ogino Athletics Park, Atsugi City

Supply and sale of domestically produced biodiesel "Cosmo CF-5" gets underway

In January 2023, Cosmo Oil Marketing switched to Cosmo CF-5, a domestically produced biodiesel fuel that reduces GHG, as the sole fuel for its exclusive contract tanker trucks and other vehicles that transport petroleum products in the Kinki area.

Cosmo CF-5 is a biodiesel fuel blended with 5% C-FUEL[1], which is manufactured and processed using domestic waste cooking oil as a raw material before being supplied. It helps to lower CO_2 emissions compared to conventional diesel fuel.

The Group will reduce CO_2 emissions by continuously using Cosmo CF-5 in the approximately 50 tanker trucks that transport petroleum products from the Cosmo Oil Sakai Refinery to the Kinki area, as well as in work vehicles used within the refinery premises. This effort will reduce CO_2 emissions by approximately 159 tons annually. In the future, we will consider selling Cosmo CF-5 to customers in the bus and transport industries, which face management challenges related to decarbonization. Beyond that, we will also explore construction of a fuel sales scheme that offers the added value of CO_2 emissions reduction.

1 Biodiesel fuel made from 100% recycled used cooking oil. This diesel fuel alternative is refined by adding methanol to vegetable oil and removing glycerin through a chemical reaction (the transesterification reaction).



Exclusively contracted tanker truck that now runs on Cosmo CF-5

Promoting Human Resources' Success, Health, and Job Satisfaction

*Specific measures and targets apply to employees of Cosmo Oil Co., Ltd.



Direction of our people strategy

The energy industry is undergoing significant changes, and the Cosmo Energy Group is working to transform and expand our business portfolio.

In *New* fields, it is essential not to confine ourselves to our existing knowledge and experience. Instead, we must actively acquire new knowledge, address unfamiliar challenges, and make decisions with a sense of urgency. Similarly, in our existing *Oil* businesses, we must be open to bold transformations as we strive to strengthen competitiveness and pursue decarbonization, departing from traditional approaches. To thrive as a Group in such an environment, we must focus on *bolstering the capabilities of individual employees* and *maximizing performance by increasing employee engagement* through continuous growth. Furthermore, "health" serves as the foundation for everything, and we are actively working to promote employee wellness as a key management agenda.

We have implemented various initiatives such as promoting the active participation of women, significantly increasing compensation, including base salary, revising the senior employee system, and pursuing workstyle reforms. Although these efforts have yielded some notable results, we believe that a more profound transformation is necessary in order for us to realize Vision 2030.

We are working towards creating a workforce aligned with our commitment under Vision 2030: *To create energy that shapes the future, energy that sustains society, and new forms of value*. As a Group, we are accelerating our efforts to ensure that Group companies are places where employees actively learn, grow, and work energetically under the principles of health and high engagement.

Strengthening human resource development

Our focus on enhancing the capabilities of individual employees revolves around the habit of continuous learning. We aim to foster a culture where employees proactively and enthusiastically face their personal growth challenges, with the support of their supervisors, as they work towards developing their skill sets.

In our efforts to encourage behavioral changes in each employee and accelerate their growth, we have summarized the requirements of Cosmo's staff into three keywords: "Challenge," "Nurture," and "Excel." Based on these three requirements, employees will experience growth through their own behavioral changes, while supervisors will support and evaluate their subordinates' proactive and enthusiastic actions, thus accelerating the growth cycle.

The Company is also reinforcing its support for learning. This includes creating opportunities for learning through programs such as level-specific training and introducing a new system to visualize the capabilities and skills of individual employees. Moreover, we are committed to enhancing our support for learning by expanding our lineup of educational content related to self-improvement and other areas.

The annual training investment per person was ¥100,000 for FY2022, and we plan to increase it to ¥180,000 by FY2025.

Increasing engagement

We have introduced an engagement index as a new KPI to measure pride in the company and the motivation to work and contribute autonomously and voluntarily. Our target for FY2025 is set at 60 points or more.

We will drive the enhancement of our corporate competitiveness and the creation of new value across all business fields by encouraging our employees to take proactive, enthusiastic, and self-driven actions. This, in turn, will lead to increased productivity, the achievement of results, and a tangible sense of growth, ultimately improving enterprise value.

To increase engagement, factors such as "management (penetration of policies and vision)," "work (content and job satisfaction)," "growth (education and development)," "evaluation and compensation," and "environment (workplace atmosphere, culture, and relationships)" should interact positively, creating a virtuous cycle. Embracing diverse values and perspectives, fostering open thinking, and translating innovative ideas into business initiatives are indispensable for increasing engagement. We will continue to implement initiatives that contribute to improving engagement in the Seventh MTMP.

Promoting Health and Productivity Management

Health is a fundamental prerequisite for both growth and increasing engagement. We are committed to actively working to ensure that employees can work in a healthy physical and mental state.

While we established our Employees' Health and Productivity Management Policy in March 2022, for our Seventh MTMP, we are taking further steps to operationalize this policy. We have newly established the Health and Productivity Management Promotion Committee, focusing on three key pillars: "strong commitment from leadership," "collaborative health initiatives with health insurance associations and Group companies," and "enhancement of health literacy." Through these initiatives, we aim to promote behavioral changes among employees and foster a corporate culture that prioritizes increased health.

Promoting Human Resources' Success, Health, and Job Satisfaction

Initiatives to Boost Engagement

Development of human resources in line with our management strategy

We aim to maximize the individual contributions of our employees by nurturing the human resources necessary to realize our management strategy and ensuring that personnel are appointed to positions that match their skills and capabilities.

① Human resource requirements at Cosmo

We will develop people strategies, policies, and related measures rooted in the three requirements – "Challenge," "Nurture," and "Excel" – that we have established for our employees to realize Vision 2030. Furthermore, we will strengthen our evaluation of employees who change their behavior and exhibit these qualities.



② Human Resource Strategy Committee

To further integrate our management strategy with our people strategy, top management convenes the Human Resource Strategy Committee regularly to deliberate on and drive people strategies. The outcomes of these discussions are periodically reported during Executive Officers' Committee meetings and Board of Directors' meetings to enhance monitoring.

③ Cultivating management personnel

We are identifying and nurturing management candidates as successors to our executive leadership team. This involves implementing educational programs, including external assessments and assignments, and fostering skill development through tough assignments within the Group, appointing candidates to key positions.

④ Succession plan

We have developed job descriptions and a successor list for department head positions and regularly assess the progress in terms of successor readiness. We are also actively implementing initiatives such as talent development, internal transfers, and external recruitment to ensure a sufficient talent pool.

⑤ Training programs

We provide various opportunities for off-the-job training, including level-specific training, management training, and department-specific specialized training.

List of Training Programs (available in Japanese only)
https://www.cosmo-energy.co.jp/ja/actions/sustainability/social/employee2.html

Self-directed career development

We aim to foster habitual learning by creating an environment where employees can autonomously chart their careers, develop their capabilities, and enhance their skills to achieve their career visions.

① Raising awareness of career development

We have published a career guidebook titled "Navigating Your Career at Cosmo," which provides comprehensive insights into the roles and necessary skills across various departments. We also conduct annual career design workshops, actively creating opportunities for employees to consider their future career visions while taking into account their own life events.

② Job challenge system

This system enables employees to directly approach the Human Resource Department to express how they would like to contribute within the Cosmo Energy Group and request transfers to their preferred departments. We aim to empower employees to proactively and enthusiastically engage in skill development and hone their specialization to progress along their self-defined career paths.

Job Challenge System (available in Japanese only)
https://www.cosmo-energy.co.jp/ja/actions/sustainability/social/employee2.html

③ Commencement of career declaration system

Starting from FY2023, we have revised our self-declaration system, launching a career declaration system as a tool to encourage employees' autonomous career development. Employees can now assess their own capabilities, experiences, skills, and medium- to long-term career aspirations, and have the ability to track their progress over the years using the system. By making the gap between their current capabilities and those required for their desired career path more apparent, we aim to boost employees' motivation for their work and encourage a greater appetite for learning. At the same time, we are working to ensure that supervisors manage subordinates in a way that considers their career aspirations.

④ Provision of self-development training

We offer self-development training courses with the aim of improving the skills required to carry out one's duties and supporting learning toward one's envisioned career. We provide full funding for courses related to job responsibilities, and for courses unrelated to job responsibilities, we offer company subsidies of over 30%. Since these courses are available year-round, employees can begin taking them at a time that suits their needs.

Self-Development Training (available in Japanese only)
https://www.cosmo-energy.co.jp/ja/actions/sustainability/social/employee2.html

Promoting Human Resources' Success, Health, and Job Satisfaction

Initiatives to Boost Engagement

Promoting diversity and creating an inclusive environment

As part of our commitment to realizing diversity, we have made women's empowerment a top priority. As of April 1, 2023, the percentage of female managers has reached 6.7%, exceeding our target of 6%. Under the Seventh MTMP, we will continue to actively promote the recruitment of female employees and career professionals, embracing and utilizing diverse perspectives and opinions to drive organizational transformation.

At the same time, we are working on building a pipeline to nurture women and promote them to leadership positions, including management and executive roles, with the aim of developing female leaders capable of managing business operations.

① Women's empowerment

We are actively pursuing workstyle reforms, including a flextime system without core hours and telecommuting options. We also provide strong support for balancing childcare and work beyond legal requirements. Furthermore, we are focusing on hiring women, expanding their career opportunities, sending them to external training, and implementing mentorship and other programs to enhance their development. Under the Seventh MTMP, we have set the targets of having 10% of managers and at least 50% of newly hired employees who are women.

Percentage of female managers and women among new graduate hires

	April 1, 2020	April 1, 2021	April 1, 2022	April 1, 2023	Target
Percentage of female managers	3.4%	4.9%	5.9%	6.7%	**10%** (as of April 1, 2026)
Percentage of women among new graduate hires	17.4%	31.3%	50.0%	60.0%	**Continued ratio of ≥50%** (during the Seventh MTMP period)

Women's Empowerment (available in Japanese only)
https://www.cosmo-energy.co.jp/ja/actions/sustainability/social/employee3.html

② Promoting participation and advancement of mid-career hires

The ratio of mid-career hires has increased to 20%, and the percentage of mid-career line managers out of all line managers has reached 11%. As we move forward with our transformation efforts, we continue to promote the hiring of career professionals and their appointments to managerial roles. Simultaneously, we foster an organizational culture that values the insights and opinions of mid-career hires, making it easier for them to tackle new initiatives. We achieve this through ongoing awareness-building, including management training programs.

Examples of Mid-Career Hires in Action (available in Japanese only)
https://www.cosmo-energy.co.jp/ja/actions/sustainability/social/employee3.html

③ Mentorship program

We have introduced a mentorship program for female employees and mid-career hires. We select mentors based on the career and needs of participating mentees and provide them with regular training.

Mentorship Program (available in Japanese only)
https://www.cosmo-energy.co.jp/ja/actions/sustainability/social/employee3.html

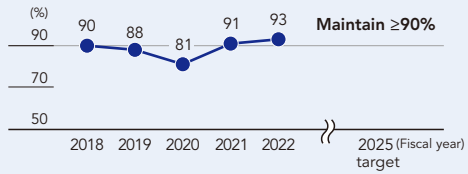
④ Cross-industry networking events and sending women to external training

We regularly provide opportunities for our female employees to exchange ideas with female professionals from different industries with the aim of broadening their perspectives and deepening their thoughts about their own careers through networking events with other companies. We also send our younger employees, primarily, to external training programs for skill-building purposes and to raise awareness towards future promotions to managerial positions.

⑤ Realizing a workstyle that increases productivity

In FY2022, we created a career guidebook titled "Navigating Your Career at Cosmo," to promote work practices that increase productivity. For day-shift employees, in addition to a flextime system without core hours, there is no upper limit on the number of telecommuting days, allowing them to choose a workstyle that maximizes their productivity without being bound by time or location. In addition, with the aim of respecting employee diversity and improving work-life balance, as of FY2023, employees are allowed to choose to work under the limited work location system regardless of their reasons. In our pursuit of productivity improvement through a workstyle that strikes a healthy balance, we are promoting the use of paid time off.

Paid leave usage rate



⑥ Support for balancing childcare and work

Recognized for initiatives to encourage employees to balance work and childcare, Cosmo Oil* became Japan's first oil wholesaler to obtain Platinum Kurumin certification in 2018. The percentage of employees who return to work after childcare leave continues to be 100%. In addition, to increase employee awareness of gender equality, we encourage male employees to participate in childcare. Our efforts include providing a seminar on balancing childcare and work, partially converting childcare leave into paid leave, introducing childbirth leave, and informing individual male employees of our programs. As a result, the rate at which childcare leave is taken by male employees reached 56% in FY2022. Other measures include giving employees on leave the opportunity to take part in e-learning, having employees talk with their supervisors before and after leave, and providing training to supervisors. These initiatives demonstrate our commitment to ensuring that childcare does not put the brakes on employees' career development.

*The certification was granted to Cosmo Oil because employees of Cosmo Energy Holdings and core operating companies are seconded from Cosmo Oil.

Initiatives to Support Balancing Childcare and Work (available in Japanese only)
https://www.cosmo-energy.co.jp/ja/actions/sustainability/social/employee4.html

⑦ Advancement of people with disabilities

On the systemic side, we continue to prohibit discriminatory treatment, reasonably accommodate various needs, enhance our consulting system, and improve the workplace environment for people with disabilities. This is achieved through efforts to foster a "barrier-free mindset" by way of a wider range of awareness-raising activities aimed at promoting understanding of individuals with disabilities. Our approach is guided by the principle of inclusivity, where diverse employees work together in the same workspace and remain committed to respecting the independence and dignity of individuals with disabilities. On an infrastructure front, we are actively working to eliminate obstacles by expanding wheelchair-accessible restrooms and installing automatic doors and ramps. As of June 1, 2023, the percentage of employees with disabilities was 2.31%.

Promoting Human Resources' Success, Health, and Job Satisfaction

Initiatives to Boost Engagement

A compensation system that contributes to motivation and job satisfaction

We aim to improve employees' motivation and job satisfaction by promoting employees based on their capabilities and achievements, regardless of age, and rewarding them in the form of compensation.

① Continued application of the role-based grading system

In FY2015, we introduced a role-based grading system for those in managerial positions, which determines their grades based on the weight of their responsibilities and sets compensation accordingly.

② Revisions to the senior employee system

In FY2021, we made fundamental revisions to the senior employee system. To encourage and support continued contributions beyond the standard retirement age, we have extended the same grade, compensation, and evaluation system to senior employees as those up to the age of 60 during their reemployment period.

Promoting the Participation of Senior Employees (available in Japanese only)
https://www.cosmo-energy.co.jp/ja/actions/sustainability/social/employee2.html

③ Incorporating individual allowances into the basic salary

Since FY2021, we have gradually phased out individual allowances such as child allowances and housing subsidies that are not directly related to job responsibilities. Instead, we have uniformly incorporated an equivalent amount into employees' basic salary. This change aims to increase the proportion of compensation that is paid based on job responsibilities and performance, ensuring that employees who achieve results are rewarded accordingly.

④ Base salary increase

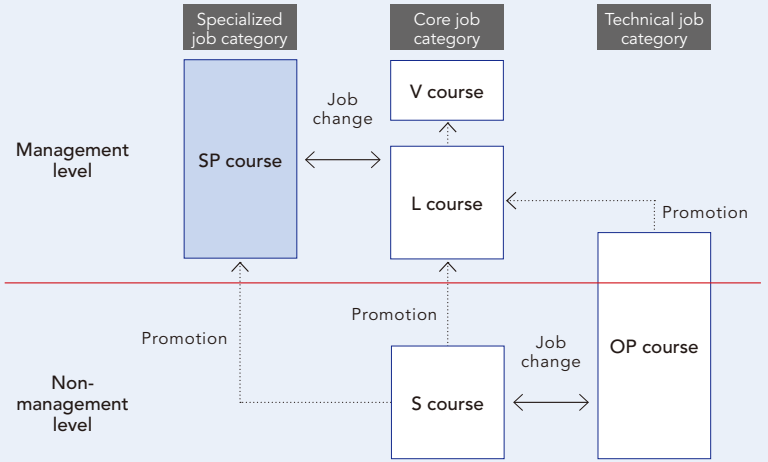
In April 2023, we increased base salaries, with an average increase of approximately 8% for union members and approximately 7% for all employees. In addition to addressing the rising cost of living, this increase aims to boost employees' motivation and vitality in their work, ultimately leading to improved productivity.

⑤ Reform of the promotion system

We have shortened the required tenure for promotion by grade, enabling employees to be promoted to a managerial position in their 20s with a minimum of seven years of service after joining the Company, starting from April 2024. By reducing the emphasis on seniority, we aim to boost motivation and provide younger employees with the opportunity to advance to managerial positions earlier in their careers, provided they demonstrate growth and the required capabilities. This will enable them to take on more challenging responsibilities.

⑥ Review of the compensation system for specialized human resources

Starting in August 2023, we reviewed and launched a new system for our specialized human resource job category, named as the SP course. This system aims to encourage the application of high-level expertise that extends beyond the confines of the Company, fostering the creation of new value. We will also actively recruit highly mobile specialized human resources from outside the company to build the capabilities necessary for advancing our business initiatives.



⑦ Generous employee benefits system

We have introduced various services, including package-based welfare services at special prices, covering travel, health promotion, caregiving, childcare, and self-development, as well as a cafeteria plan where employees receive a fixed subsidy (points) that can be used to choose from a variety of welfare services within the point range. This effort to enhance our range of benefits is part of our commitment to accommodating the diverse lifestyles and values of our employees.

Promoting Human Resources' Success, Health, and Job Satisfaction

Our Commitment to Health and Productivity Management

Promoting health and productivity management to enhance enterprise value

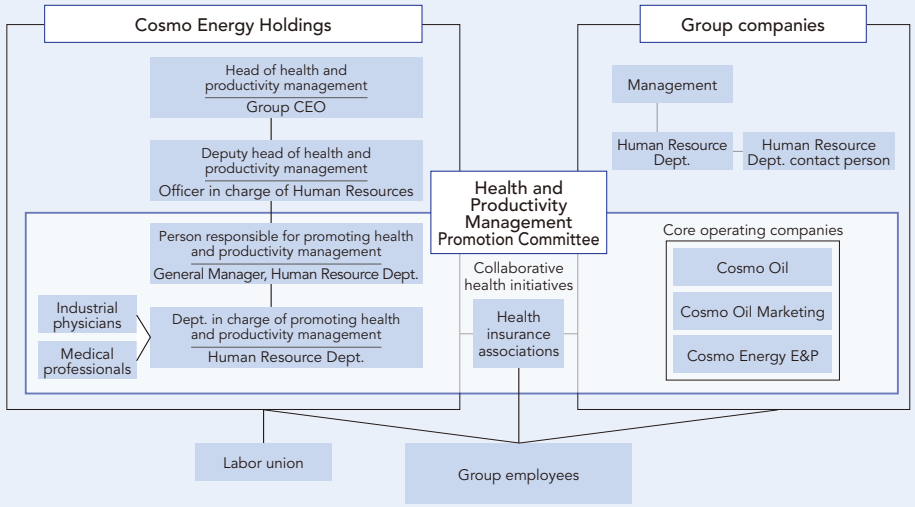
We are committed to promoting health and productivity management based on the belief that being healthy, both physically and mentally, is essential for individuals to fully demonstrate their capabilities. We recognize that improved health contributes to high-quality, stable, and safe operations, as well as business outcomes, which form the foundation for enhancing enterprise value. We focused on preventive measures such as prohibiting smoking during working hours and the introduction of special holidays for complete medical checkups and follow-up testing. In recognition of these efforts, we obtained the Development Bank of Japan (DBJ) Health Rating in 2019, and were recognized under the Certified Health and Productivity Management Outstanding Organizations Recognition Program (large enterprise category) for the fifth consecutive year in 2023.

① Strong commitment from leadership

We have positioned the Group CEO as the leader, and the General Manager of the Human Resource Department as the person responsible for driving health and productivity management. With the President at the helm, this approach reinforces our commitment to health and productivity management and strengthens our capacity to promote it effectively.

We have also established a new Health and Productivity Management Promotion Committee, led by the Human Resource Department. This committee comprises industrial physicians, medical professionals, and health insurance associations, as well as the human resource divisions of the three core operating companies. Going forward, the Committee will help further promote health and productivity management effectively and cohesively throughout the Group.

Health and Productivity Management Promotion Structure (available in Japanese only)
https://www.cosmo-energy.co.jp/ja/actions/sustainability/social/employee6.html



② Collaborative health initiatives with health insurance associations and Group companies

Group companies proactively collaborate with health insurance associations to plan and implement initiatives and events aimed at promoting employee wellness. In particular, we have long been implementing initiatives related to smoking such as stipulating in our rules of employment the prohibition of smoking during working hours and providing smoking cessation programs. Moving forward, we will continue to maintain our focus on key areas that require improvement, notably smoking, drinking habits, and dietary habits, which present significant health risks, and roll out improvement initiatives across the Group to drive positive change.

③ Improving health literacy

To encourage employees to address health-related issues proactively and of their own accord, we actively disseminate information aimed at improving health literacy and empower employees to lead healthier lifestyles. Both physical and mental health are significantly influenced by lifestyles, so it is essential to develop appropriate habits and acquire the skills to access and utilize accurate health-related information effectively. We regularly and continuously provide information through e-learning, events, and other channels to empower employees to actively and voluntarily address health-related issues.

④ Participation in the Health & Productivity Management Alliance

We have joined the Health Management Alliance, which was established in FY2023. Through events such as study sessions and seminars with other companies, we aim to acquire knowledge in the field of wellness management and expand our network, enabling us to consider and implement various wellness initiatives more effectively.



Specific Health-related Initiatives (available in Japanese only)
https://www.cosmo-energy.co.jp/ja/actions/sustainability/social/employee6.html

Human Rights

If we are to put the Cosmo Energy Group Management Vision into practice, we believe that the human rights of all stakeholders must be fully respected and that all officers and employees of the Group hold themselves to high ethical standards in everything that they do. For this reason, the Cosmo Energy Group Code of Conduct clearly states our respect for human rights, while stressing their importance and our responsibility as a company to respect them.

Formulating a Human Rights Policy

The Group has formulated a Human Rights Policy that complies with the United Nations Guiding Principles on Business and Human Rights (UNGP) and a resolution to adopt the policy was passed at a Board of Directors meeting. This policy outlines our basic approach to respecting human rights, based on our Group Management Vision and Corporate Code of Conduct.

Human Rights Policy
https://www.cosmo-energy.co.jp/en/about/company/policy/human-rights.html

Relief mechanism

The Group has established the Cosmo Energy Group Corporate Ethics Office as an organization to promote and implement activities related to corporate ethics and human rights measures. In addition, the Cosmo Energy Group Corporate Ethics Consultation Helpline (Corporate Ethics Helpline), which allows employees to anonymously consult on and report misconduct and ethical issues, such as violations of laws and company rules, has been established both within and outside the Company.

Promotion structure

Under the supervision of the Board of Directors, the Company decides, promotes, implements, and confirms basic policies regarding corporate ethics, and promotes, implements, and confirms efforts to respect human rights and prevent and rectify all manner of human rights violations both in and outside of Japan. We have established a Sustainability Strategy Committee and a Sustainability Committee as meeting bodies for this purpose.

We also look at the entire supply chain, investigating human rights compliance in the supply chain within the framework of sustainable procurement.

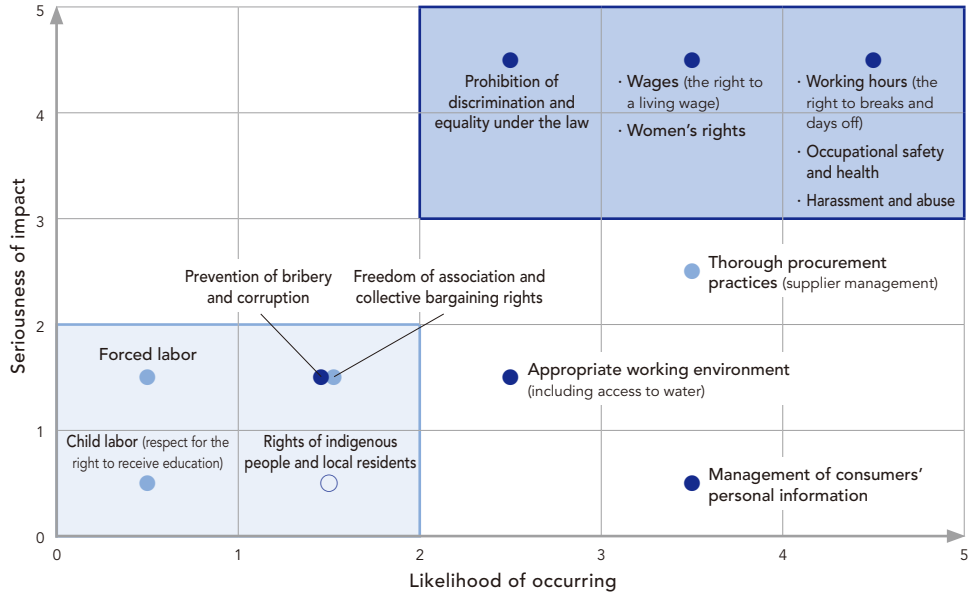
Regarding our human rights initiatives, in May 2023, we invited Mr. Hideki Matsuoka, a specially appointed researcher at the Asia-Pacific Human Rights Information Center (Hurights Osaka), to hold an expert dialogue with the General Manager of the Sustainability Initiative Department. We will use the feedback we received to make improvements.

Expert Dialogue (available in Japanese only)
https://www.cosmo-energy.co.jp/ja/actions/sustainability/social/employee.html

Implementing human rights due diligence

In FY2022, the Group conducted human rights due diligence in accordance with the UNGP on the value chain of petroleum products, our main business. The goal was to identify and evaluate human rights risks, and to propose improvement measures (such as establishing an educational mechanism). Based on written and interview-based surveys, employee awareness surveys, and external information, we evaluated apparent and latent risks and management structure vulnerabilities. In response, we created a map of human rights issues in our petroleum-related businesses.

Map of human rights issues Ratio of vulnerabilities that have been addressed ● 76~100% ● 51~75% ○ 26~50%



■ A mechanism has been established to some extent (high ratio of vulnerabilities that have been addressed), but apparent and latent risks are high
→ A reevaluation is required, including a review of existing mechanisms

□ Although likelihood of occurrence and/or seriousness of impact is low, management mechanisms are at least partially lacking; if these risks arise, our risk management efforts might be called into question
→ Expansion of risk management mechanisms is required

Reference guidelines

- We first drew up a long list of 24 human rights issues based on international norms and guidelines, industry characteristics, and the human rights risks and issues faced by other companies. We then extracted 14 issues related to our Group from the long list.
- In implementing human rights due diligence based on the Guiding Principles on Business and Human Rights, we conduct risk assessments of human rights issues and vulnerabilities to human rights risks from the perspective of seriousness of impact and likelihood of occurrence.

Commitment to Compliance and Sharing of Philosophy and Values

The Cosmo Energy Group designates "Commitment to compliance and sharing of philosophy and values" as one of its most important material issues that forms the foundation of business continuity. We have set KPIs in our Seventh Consolidated Medium-Term Management Plan and are cultivating an honest corporate culture, strengthening our internal systems, and reinforcing our compliance structure.

Compliance

Corporate ethics promotion structure

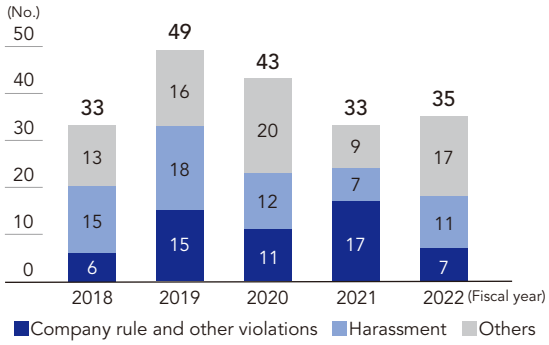
The Sustainability Strategy Committee and Sustainability Committee were established under the supervision of the Board of Directors to determine, promote, implement, and confirm basic policies regarding corporate ethics. These two bodies also promote, implement, and confirm efforts to respect human rights and prevent and eliminate all human rights violations both in Japan and overseas.

In FY2022, the Group recorded one serious compliance violation, and we have taken thorough measures to prevent a recurrence.

Corporate Ethics Consultation Helpline

We have established the Cosmo Energy Group Corporate Ethics Consultation Helpline (Corporate Ethics Helpline) both internally and externally, allowing employees to anonymously discuss and report misconduct by their colleagues such as violations of laws and company rules (including harassment), as well as ethical issues. In FY2022, the number of consultations totaled 18 (seven violations of company rules, 11 cases of harassment). Reports and consultations are regularly reported to directors who are members of the Audit and Supervisory Committee, leading to continuous improvement of the workplace environment and cross-organizational deployment of preventive measures. In response to the revision of the Whistleblower Protection Act in June 2022, we regularly train helpline personnel on the outline of the whistleblower system and how to respond to whistleblowing cases, which improves the skills of those personnel.

Number of reports to Corporate Ethics Office (past five years)



Sharing of philosophy and values

To instill the Group's management vision and values in employees, we conduct employee awareness surveys and various types of training and other education, and we monitor progress. The Cosmo Energy Group Code of Conduct defines the actions that all officers and employees should take and the rules they must observe in their everyday work.

Sustainable procurement

We believe that our Group Management Vision makes it essential to fulfill our social responsibilities throughout the supply chain such as legal compliance, fair trade, respect for human rights, and environmental consideration. Our Sustainable Procurement Policy was formulated in 2019 and revised in February 2022. This policy, based on our Group Management Vision and Code of Conduct, sets forth basic policies regarding the social responsibilities that the Group should fulfill throughout the supply chain to help realize a sustainable society.

Guided by the CSR-based Purchasing Guidelines formulated by Cosmo Oil in 2019, we drafted the Cosmo Energy Group Sustainable Procurement Guidelines in January 2023. The guidelines summarize in nine categories the specific things that we should request from our suppliers. We aim to pursue sustainable development by collaborating with amenable suppliers (business partners).

In FY2022, we expanded initiatives in our Group's Sustainable Procurement Policy and Sustainable Procurement Guidelines to Group companies and conducted evaluations of our suppliers. We had all 11 Group companies, led by Cosmo Oil, request the cooperation of approximately 900 suppliers with a survey to investigate their compliance with the Sustainable Procurement Guidelines, and the response rate was nearly 90%. We will continue to expand our efforts in accordance with these guidelines, gain the understanding and support of our suppliers, and aim for sustainable mutual development.

Strengthening Group Risk Management

The Cosmo Energy Group has designated "the strengthening of Group risk management" as one of the most important material issues that form the foundation of business continuity. We strive to improve enterprise value by establishing a vision and KPIs for Group risk management, sincerely addressing material issues, and strengthening our governance structure.

Risk management

At the Cosmo Energy Group, we aim to achieve sustainable development by continually offering a stable supply of products and services. To enable us to realize this goal, the Sustainability Strategy Committee not only deliberates on how to respond to groupwide risks, it also summarizes measures to address risks at each company and discusses the progress of countermeasures (twice a year). The results are reported to the Board of Directors and, through the Sustainability Liaison Committee, are shared with each Group company.

Core operating companies and semi-core operating companies have established specialized bodies, such as the Sustainability Promotion Committee, which promote measures to address risks faced by Group companies and their subsidiaries, as well as propose safety measures and monitor the progress of safety activities. Similar risk management is also promoted at the subsidiaries of each Group company, and these initiatives are reported to the Sustainability Strategy Committee through the core or semi-core operating companies in charge of them.

In this way, we work to enhance risk management for the entire Group through strong groupwide governance and independent efforts by each company.

Risk Management System (available in Japanese only)
https://www.cosmo-energy.co.jp/ja/actions/sustainability/governance/risk.html

Groupwide risks

We recognize the following risks as being common to all Group companies, and we are working on measures to address them.

- Risk related to forex rates
- Risk related to interest rates
- Risk related to value of assets
- Risk related to reversal of deferred tax assets
- Risk related to infectious diseases, etc.
- Risk related to climate change
- Risk related to disasters and accidents
- Risk related to laws and regulations
- Risk related to competition
- Risk related to credit
- Risk related to quality
- Risk related to customer satisfaction
- Risk related to violations of laws and ordinances
- Risk related to information management
- Risk related to internal control systems
- Geopolitical risk

Cosmo Energy Group priority risks (CEG priority risks) and our steady responses

The Cosmo Energy Group has defined the priority risks that the entire Group should address in FY2022 as "CEG priority risks," and has selected the following six, which are steadily being dealt with.

FY2022 priority risks and details of initiatives to address them

	Risk item	Initiative details
1	Resolving medium- to long-term personnel shortages	• Undertook efforts to ensure personnel are in the right roles and train successors
2	Strengthening systematic preparations and countermeasures against infectious diseases	• Ensured a flexible response to infectious diseases in accordance with the spread of COVID-19 and government orders, etc.
3	Resilience against natural disasters	• Conducted training to improve proficiency in the use of online tools (Teams) • Undertook efforts to improve awareness of storm and flood damage
4	Reduction of harassment	• Further enhanced our training program
5	Reduction of work-related accidents	• Strengthened efforts to reduce work-related accidents • Reinforced how work-related accidents are managed
6	Cyberattack countermeasures	• Held training to raise cyber-literacy levels • Implemented measures to strengthen security

Integrated risk management

As an important management agenda that extends to all Group companies, we have established a system for continual discussion in the Sustainability Strategy Committee, and we have implemented measures aimed at understanding risks and evaluating our responses. To further strengthen our response to changes in the Group's business environment and various risks, we are working to build a groupwide Enterprise Risk Management (ERM) system. Under this system, we seek to maximize the Group's enterprise value by viewing risks as opportunities that lead to profits over the medium to long term.

Digital Transformation (DX)



To effectively respond to the ever-changing business landscape surrounding the Cosmo Energy Group, a fundamental transformation of our business model is imperative. Therefore, we believe that it is crucial for each employee to take ownership in solving business challenges and actively engage in collective DX initiatives while making use of digital technology. To realize this, we have been actively working on bolstering our overall "digital capabilities," which encompasses the necessary organizations, infrastructure, and partnerships with external stakeholders to promote data utilization. Additionally, we are committed to driving "change management" initiatives, including human resource development and fostering diversity within our organizations, to overcome the challenges of transformation.

To be more specific, we are actively developing data utilization infrastructure, introducing various analytical tools, and cultivating human resources with expertise in data utilization. At the same time, we are running programs designed to enhance digital literacy and support DX initiatives. These efforts are aimed at fostering a corporate culture where every employee within the Group can actively engage in and contribute to DX activities using digital tools. In our Seventh Consolidated Medium-Term Management Plan, we are committed to boosting efficiency and productivity within our existing business operations while simultaneously striving to realize new value as a community enabler.

FY2022 activities

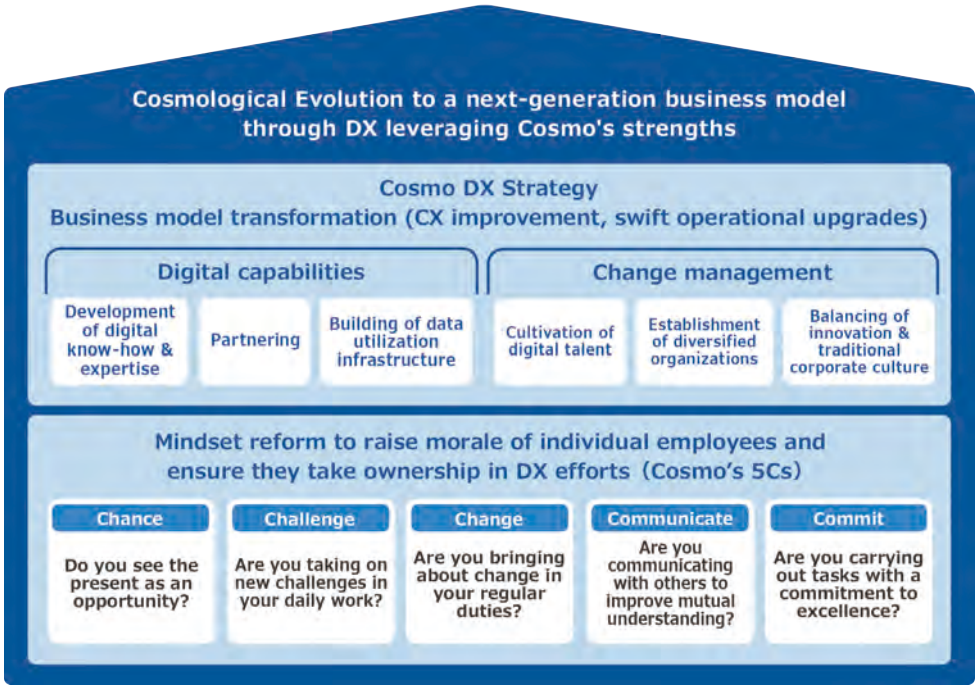
Our business strategy and organizational efforts to drive DX have been recognized by the Ministry of Economy, Trade and Industry with certification as a "DX Certified Operator." In addition to establishing data analytics infrastructure and uncovering business challenges through DX surveys conducted among all employees, we are implementing the following initiatives to support DX activities.

Digital Transformation Certification

1 DX Forum
To enhance employees' DX literacy, we provide information on the utilization of BI tools and DX best practices through the DX Forum.

2 CDO CUP
To elevate the execution level of DX projects, we run an in-house program called "CDO CUP," where a specialized DX Taskforce provides support.

DX at Cosmo (Cosmo's Vision House)



Cosmo's commitment to DX is represented in our "Vision House" shown above. Our primary objective is to realize "Cosmological Evolution." To achieve this, we have established six initiative pillars, categorized into two primary strategies, each consisting of three sub-initiatives. Our efforts extend beyond enhancing our organizational structure and data utilization infrastructure; we are dedicated to cultivating a culture that blends innovation and tradition. This entails collaborating with external partners, ensuring employee professionalism, and championing diversity and inclusion. Additionally, we have introduced the "5C" principles, known as "Cosmo's 5Cs," as a pivotal element for transforming employee mindsets, driving meaningful behavioral change.

Digital Transformation (DX)

Our DX vision



In our role as an energy supplier, we are fully committed to strengthening the competitiveness of our existing business operations by leveraging digital technologies, including digitalizing our plants and optimizing the petroleum supply chain. Additionally, we are focused on harnessing both existing and new data to generate fresh business value, thereby serving as a community enabler.

Key performance indicators for establishing DX promotion infrastructure and developing digital personnel

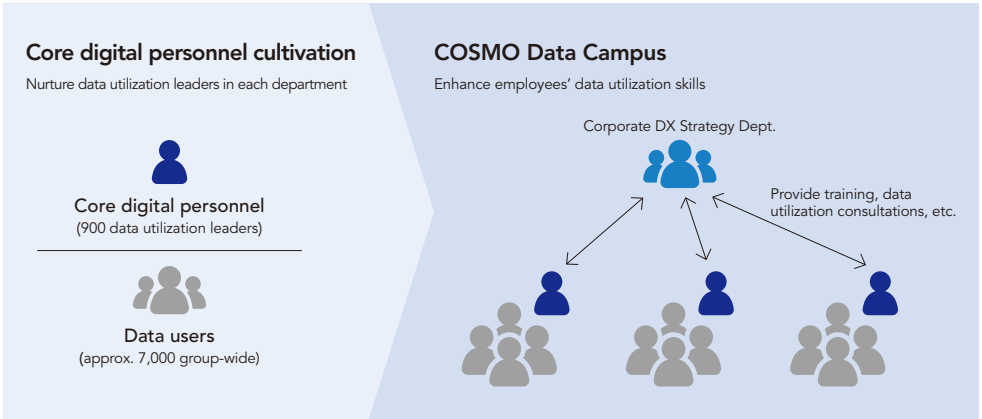
Core digital personnel	Develop **900** core digital personnel by the end of FY2025	Number of projects conducted with CDO CUP Support	Total of **60** over three years
DX event participation	Total **20,000** people per year	IT/DX-driven operational efficiency improvement	Up **10**% (vs. FY2022)
Number of DX Forum events	**24** per year		

Core digital personnel

In the realm of business, formulating strategies and business plans demands the analysis and effective utilization of gathered and stored data. We are dedicated to nurturing all Cosmo Energy Group employees into proficient data users who leverage data in their everyday work processes.

Furthermore, we will develop core digital personnel who will lead data utilization efforts among data users in each department. These key individuals will spearhead data collection, visualization, and analysis, ultimately bolstering the overall digital capabilities of the entire Group.

To achieve this, we are rolling out the in-house training program "COSMO Data Campus," where employees acquire the skills necessary for data utilization.



Core digital personnel encompass not only data scientists who perform data analysis but also data engineers responsible for designing and building data utilization infrastructure, as well as data strategists who formulate data utilization strategies within organizations. Data strategists with a strong understanding of business define data utilization themes, and within projects, data scientists and data engineers coordinate their roles to advance these initiatives. This approach helps us disseminate a culture of data utilization throughout the Group.

When setting the KPI of 900 individuals, we have taken into account our organizational structure, and we have calculated the required personnel and headcount for each department accordingly. In driving data utilization, we will progressively foster skills through human resource development programs to enable individuals to acquire advanced capabilities for the future.

Safe Operations and Stable Supply

The Cosmo Energy Group has designated "safe operations and stable supply" as one of our most important material issues. We consider "thorough safety measures" to be one of the foundations of business continuity to improve enterprise value, and we have set KPIs to strengthen our safety management structure.

Ensuring safe operations and stable supply

The Cosmo Energy Group states in Chapter 1 of its Code of Conduct, "We are determined to be a safe, accident-free corporate group." We are implementing safety measures with the goal of achieving "safe operations and stable supply," one of the most important material issues listed in the Seventh Consolidated Medium-Term Management Plan.

In FY2022, one serious work-related accident occurred at Cosmo Oil. Out of sincere concern, we returned to the basics of safety and implemented educational and other initiatives that prioritize safety, such as thorough compliance with regulations and standards; thorough reporting, consultation, and communication; and strict use of appropriate protective equipment. Meanwhile, at Cosmo Oil Marketing, which recorded an increase in work-related accidents, we are taking measures such as sharing case studies across all divisions and issuing warnings.

In the Seventh Consolidated Medium-Term Management Plan, we established management indicators and will implement safety management with the goal of identifying and taking countermeasures against failures that do not lead to serious accidents or major work-related injuries. At the same time, we are working to ensure safe operations and stable supply by upgrading workplaces and the working environment and applying our Operational Management System (OMS).

Number of work-related accidents at the Cosmo Energy Group

	FY2020		FY2021		FY2022	
	Accidents requiring time off from work	Accidents not requiring time off from work	Accidents requiring time off from work	Accidents not requiring time off from work	Accidents requiring time off from work	Accidents not requiring time off from work
Accidents during work	33	95	20	60	42	74
Accidents while commuting	12	19	12	21	12	18
Total	159		113		146	

*Accidents during work include ones that occurred at subcontracting companies.

Quality assurance: enhancing our quality assurance structure

Based on its quality policy, the Cosmo Energy Group's Sustainability Strategy Committee sets quality targets for the entire Group. Cosmo Oil also has a Sustainability Promotion Committee to determine quality assurance policies and promote activities in line with Group quality targets.

In FY2022, we designated the prevention of serious product (quality) accidents as a KPI and engaged in quality control activities. Our refineries and plants continued to achieve zero serious quality-related issues and shipments of non-conforming products.

Certification as Super Nintei Jigyosha

In our Group, the Chiba Refinery and Yokkaichi Refinery obtained Super Nintei Jigyosha (Tokutei Nintei Jigyosha) certification in April 2021 and August 2022 respectively. Under this program, the Ministry of Economy, Trade and Industry certifies business establishments that have achieved a high level of voluntary safety activities through the use of IoT and big data, advanced risk assessments, and third-party evaluations of safety capabilities.

Benefits of being certified

Category	Conventional certification program	Super Accredited Operator certification program
Period of continuous operation	Fixed (two years/four years)	Arbitrary with an upper limit of eight years (the business operator is allowed to set the period on their own in accordance with risks)
Completion inspection/safety inspection methods	Methods specified by the Minister of Economy, Trade and Industry	Wider inspection method options (to be determined by the business operator)
Equipment renewal (same specifications)	Prior permission required	Prior permission not needed for a wider range

As a result of these efforts, we are able to ensure more flexible and efficient business operation than before. These will also lead to greater international competitiveness. We believe that it is very meaningful that we obtained this certification at the Chiba Refinery, which has the highest crude oil throughput in the Group and is close to the center of demand in the Greater Tokyo Area, and the Yokkaichi Refinery, which has been in operation for approximately 80 years. This is a huge milestone in terms of refinery operations.

Furthermore, at the Sakai Refinery, we are also working to achieve a high level of voluntary safety. At Group's refineries, the OMS, which is the pillar of our operations, encourages individuals to act on their initiative based on their commitment to requirements that define ideal refinery operations, as well as their knowledge and experience. We strive to improve our safety capabilities by implementing and continually improving safety management activities and by growing into an autonomous organization that runs on the knowledge and skills of individuals.

The Group will continue to take actions to "remain a safe, accident-free corporate group" as set forth in the Cosmo Energy Group Code of Conduct, as we work to reduce failures. At the same time, we will contribute to the enrichment of customers' lives through safe operations and a stable energy supply.

Corporate Governance

Overview of Corporate Governance

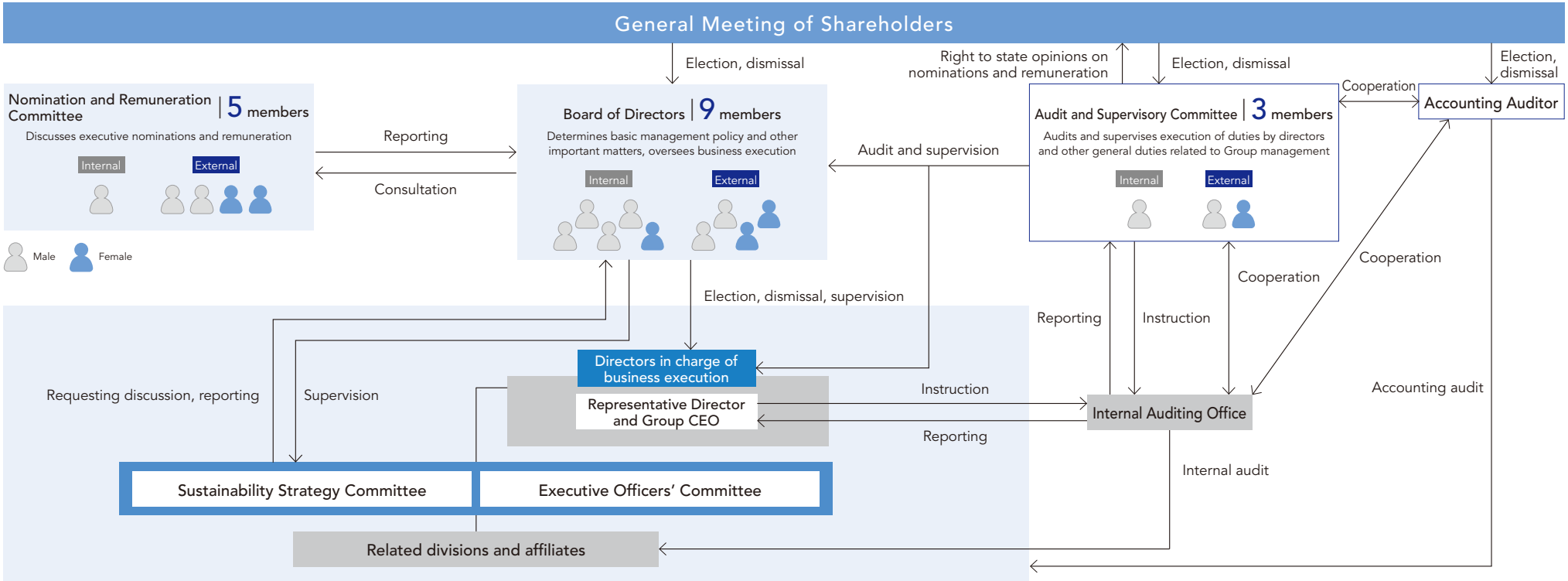
Basic approach to corporate governance

Based on the "Cosmo Energy Group Management Vision" and the "Cosmo Energy Group Code of Conduct," which outlines the specific guiding principles to achieve the Group Management Vision, we are working to promote improvements in "management transparency and efficiency," "prompt execution of business," and "thorough risk management and compliance."

Corporate Governance Basic Policy
https://www.cosmo-energy.co.jp/en/about/ir/management/governance.html

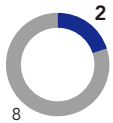
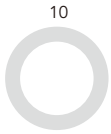
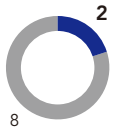
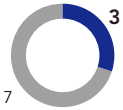
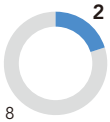
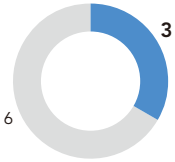
Corporate governance structure

To promote the above, Cosmo Energy Holdings is structured as a company with an audit and supervisory committee, and has established a Board of Directors, an Audit and Supervisory Committee, a Nomination and Remuneration Committee, an Executive Officers' Committee, and a Sustainability Strategy Committee. Additionally, we have introduced an executive officer system to further clarify the separation between management oversight and business execution and to respond quickly to changes in the business environment.



Executive Officers' Committee: Consists of the Group CEO, key executive officers, full-time Audit and Supervisory Committee members, and the presidents of core operating companies. It is a decision-making body for the Group CEO that deliberates on basic policies and important matters related to business execution.
Sustainability Strategy Committee: See page 50 for details.

Transition of corporate governance enhancement

	Changes made	Director mix (people)	Female director composition (people)
October 2015	• Formed a holding company structure • Shifted to company with an audit and supervisory committee structure • Introduced a share-based compensation plan		
2019	• TSR standard introduced for medium- to long-term incentive remuneration (2018) • Appointed a female director (Audit and Supervisory Committee Member)		
2021	• Number of independent outside directors increased • Number of female directors increased		
2022	• Appointed a female executive officer as a director • Number of independent outside directors increased • Evaluation of ESG efforts introduced in annual incentive remuneration		

*Audit and Supervisory Committee members are included in "Directors" ■ Independent outside directors ■ Female ■ Male

Bolstering diversity

To enable the Board of Directors to function effectively and efficiently, we have increased diversity in terms of skills, gender, and the balance between internal and external directors, among other factors. As of July 2023, three out of nine directors were female and four were independent outside directors.

Strengthening the executives' remuneration plan

Remuneration consists of three components: basic remuneration, annual incentive remuneration, and medium- to long-term incentive remuneration. In addition, beginning in FY2022, evaluation of efforts towards ESG targets have been taken into account in annual incentives. (See page 75 for details.)

Review of Board of Directors' purpose and authority

In FY2021, the Board of Directors reviewed its purpose with the goal of deepening medium- to long-term discussions and strengthening engagement with stakeholders. At the same time, it expanded discussions on sustainability and the Company's medium- to long-term direction in line with this purpose.

Purpose of the Board of Directors

- The Board of Directors aims to achieve sustainable growth of the Group and enhance enterprise value over the medium to long term.
- The Board of Directors strives to instill compliance with laws and regulations and corporate ethics, and with this in mind, focuses on "determining the Company's overall direction", "engaging with stakeholders (information disclosure, etc.)", and "overseeing business execution" as it streamlines management.

Furthermore, in July 2022, the Board of Directors delegated a significant share of business execution decisions to the Executive Officers' Committee, with the aim of strengthening the Board of Directors' supervisory function and streamlining management.

Corporate Governance

Board of Directors

Overview

The Board of Directors is composed of directors (excluding directors who are members of the Audit and Supervisory Committee) and Audit and Supervisory Committee members. The Board makes decisions on important matters such as basic management policies and oversees business execution.

To strengthen the Board of Directors' supervisory function and ensure that management is fair and transparent, we have appointed independent outside directors. We have also established system whereby information required by those directors is immediately reported.

FY2022 Board of Directors' meeting attendance record

The Board of Directors met 11 times. The attendance of each member is shown below.

Title	Name	Attendance record
Representative Director, Group CEO	**Hiroshi Kiriyama**	100% (11/11)
Representative Director, Senior Managing Executive Officer	**Takayuki Uematsu**	100% (11/11)
Director, Senior Executive Officer	**Shigeru Yamada**	100% (11/11)
Director, Senior Executive Officer	**Yoshimitsu Sunano**	100% (1/1)
Director, Senior Executive Officer	**Junko Takeda**	100% (10/10)
Independent Outside Director	**Ryuko Inoue**	100% (11/11)
Independent Outside Director	**Takuya Kurita**	100% (10/10)
Director, Full-time Member of the Audit and Supervisory Committee	**Toshiyuki Mizui**	100% (11/11)
Independent Outside Director, Member of the Audit and Supervisory Committee	**Yasuko Takayama**	100% (11/11)
Independent Outside Director, Member of the Audit and Supervisory Committee	**Keiichi Asai**	100% (11/11)

*The above information applies to the period from April 1, 2022 to March 31, 2023, and titles are as of March 31, 2023 or the date of retirement.
*In addition to the number of Board of Directors' meetings noted above, one written resolution was deemed to have been passed by the Board of Directors pursuant to Article 370 of Japan's Companies Act and the Company's Articles of Incorporation.
*Director and Senior Executive Officer, Junko Takeda, and Independent Outside Director, Takuya Kurita, attended Board of Directors' meetings held after their appointment as directors, and Director and Senior Executive Officer, Yoshimitsu Sunano, attended Board of Directors' meetings held before his retirement as director.

FY2022 Board of Directors' activities

In FY2022, Board discussions focused on the following points.

Authority of the Board of Directors

In accordance with the Board of Directors' purpose, which was reviewed in FY2021, the Board discussed its authority and reviewed the regulations governing it. More specifically, the Board reviewed the standards for deciding which matters should be submitted for discussion, delegated a large share of decisions regarding business execution to executive officers, and enhanced the range of reporting items to strengthen its supervisory function.

Vision 2030 and the Seventh Consolidated Medium-Term Management Plan

The Board of Directors held a total of nine discussions during the course of formulating Vision 2030 and the Seventh Consolidated Medium-Term Management Plan, which were announced in March 2023. With the business environment entering a period of major transformation as we seek to realize a decarbonized society, the Board has also held discussions on various topics relating to how it can sustainably enhance the enterprise value of the Cosmo Energy Group.

Sustainability

The Group is working to promote sustainability, and the Board of Directors has also addressed a variety of sustainability-related topics such as climate change (including our Roadmap to Achieve Net Zero Carbon Emissions), safety, risk management, and human rights.

Evaluation of Board of Directors' effectiveness

The Company evaluates the effectiveness of the Board of Directors every year. In FY2022, we conducted an anonymous survey regarding Board of Directors' composition, role, operations, and this fiscal year's new initiatives, and based on the responses, the Board evaluated and discussed plans for future initiatives.

Overview of evaluation results

- The structure of the Board of Directors is appropriate the number of directors, its composition is diverse, and it serves as a venue for the constructive exchange of opinions.
- The Board of Directors serves as a venue to discuss business strategy from medium- and long-term viewpoints capturing changes in the external environment such as decarbonization and to discuss and make decisions on the major direction and so on for the Group including Vision 2030 and the Seventh Consolidated Medium-Term Management Plan.
- In addition to the above, the Board took the following actions and made improvements concerning its policies on pursuing initiatives stated in FY2021:
  1 Continuously reviewed the Board of Directors' authority in line with its purpose
  2 Established meetings (Executive Session) consisting of independent outside directors only

Future issues and our policy on pursuing initiatives

To further enhance effectiveness, the Board of Directors will work to regularly oversee the status of business execution toward achievement of the Seventh Consolidated Medium-Term Management Plan.

The full results of the evaluation of Board of Directors' effectiveness are posted on our corporate website.

https://www.cosmo-energy.co.jp/en/about/ir/management/governance.html

Corporate Governance

Nomination and Remuneration Committee

Overview

The Company has established a Nomination and Remuneration Committee as an advisory body to the Board of Directors to ensure transparency and objectivity in the process of determining director candidates and remuneration. The Committee is composed of internal and independent outside directors, and it deliberates on the nomination and remuneration of executive officers. The Committee is chaired by an independent outside director.

FY2022 Nomination and Remuneration Committee meeting attendance record

The Nomination and Remuneration Committee met 10 times in FY2022. The attendance of each member is shown below.

Title	Name	Attendance record
Representative Director, Group CEO	**Hiroshi Kiriyama**	100% (10/10)
Independent Outside Director	**Ryuko Inoue**	100% (10/10)
Independent Outside Director	**Takuya Kurita**	100% (8/8)
Independent Outside Director, Member of the Audit and Supervisory Committee	**Yasuko Takayama**	100% (10/10)
Independent Outside Director, Member of the Audit and Supervisory Committee	**Keiichi Asai**	100% (10/10)

*The above information applies to the period from April 1, 2022 to March 31, 2023, and titles are as of March 31, 2023 or the date of retirement.
*Independent Outside Director, Takuya Kurita, attended Committee meetings held after his appointment to the Committee on June 23, 2022.

FY2022 Nomination and Remuneration Committee's activities

In FY2022, the Nomination and Remuneration Committee met 10 times and primarily discussed the following agenda items.

Meeting date	Matters deliberated/reviewed (regarding nominations)	Matters deliberated/reviewed (regarding remuneration)
May 16, 2022	• Role of the Board of Directors	• Performance evaluation for annual incentive
June 13, 2022	• Review of details of executive officers' goals and human resource requirements for executive officers	• Review of the progress of ESG targets and reporting on their consideration status • Determination of stock remuneration amount
June 23, 2022	• Election of Nomination and Remuneration Advisory Committee members and chairperson	
July 27, 2022	• Structure of the Board of Directors • Training for executive officers	
October 17, 2022	• Retirement age of internal officers • Nomination and Remuneration Advisory Committee name change	• Annual incentive (performance evaluation) indices • Unification of stock remuneration calculation periods
November 10, 2022	• Consideration of outside director' term of office • Review of the skills matrix	
December 23, 2022	• Appointment of Group Chairman and Group CEO • Review of the results of executive officer' performance evaluations and multilateral evaluations	• Report on the environment surrounding management remuneration • Examination of appropriateness of the current remuneration level
January 16, 2023	• Appointment of executive officers • Regulations on executive officers' term of office	• Considerations concerning the review of compensation levels and mix
February 16, 2023	• Skills matrix of FY2023	• Final draft of FY2023 remuneration level and mix • Annual incentive framework
March 20, 2023	• Skills matrix of FY2023 • FY2023 officer training implementation plan	• Setting of annual incentive performance base amount • Stock ownership guidelines

Evaluation of Nomination and Remuneration Committee's effectiveness

We have evaluated that our Nomination and Remuneration Committee is effective and that the Committee is continuously striving to improve its effectiveness as in FY2021 as demonstrated below.

- The structure of the Committee is appropriate in terms of the number of members, proportion of outside members, and diversity, and free and open exchange of opinions.
- The Committee takes into account information provided by consultants and recent trends both inside and outside the company when holding discussions.
- Nominations and remuneration are both determined through appropriate processes.

Furthermore, the key achievements by the Committee for FY2022 are below.

- Appointment of the Representative Director, Group CEO based on its succession plan
- Reviewed the composition and the level of remuneration for directors and executive officers
- Optimized the director/executive officer structure through review of their tenure and skill matrix
- Provided training programs necessary for performing the roles and responsibilities of directors and executive officers

The Committee is committed to further raise its effectiveness and the Company's governance in the areas of director nomination and remuneration.

The results of the evaluation of Nomination and Remuneration Committee's effectiveness are posted on our corporate website.

https://www.cosmo-energy.co.jp/en/about/ir/management/governance.html

Succession planning and CEO appointment and dismissal

The Cosmo Energy Group considers the development of successors to the president as one of the most important strategies to support its sustainable growth. Our fundamental policy is to ensure transparency and objectivity in the selection of successor candidates and to develop individuals as successors who possess the capabilities and qualities befitting the Group CEO.

During the successor development period, successor candidates are subject to multilateral human resource evaluations, including an evaluation of whether they meet the Group's human resource requirements, as well as annual performance evaluations. At the same time, support for their future development is provided in a well-planned manner by considering and making job assignments based on the development status of each candidate, providing them with external training opportunities, and other initiatives. The Nomination and Remuneration Committee is provided with information about multilateral human resource evaluations and the results of annual performance evaluations and continues to evaluate the appropriateness of successor candidates and the succession plan.

Regarding final candidate selection, the president selects the final candidate who possesses the capabilities and qualities necessary to lead the Group as CEO from a pool of candidates based on multilateral human resources evaluation information, including whether they meet the human resources requirements of the Group and the results of performance evaluations conducted every fiscal year. The president then submits a proposal to the Nomination and Remuneration Committee, which deliberates the appropriateness of the president's proposal and submits their recommendation to the Board of Directors.

In addition, the Nomination and Remuneration Committee deliberates every fiscal year on whether or not it is necessary to submit a proposal regarding the dismissal of the president to the Board of Directors in light of human resource requirements, performance standards, or other factors. If the Committee concludes that the matter needs to be referred to the Board of Directors, the Board of Directors decides whether to dismiss the president based on the Committee's recommendation. Regarding the appointment of a new Group CEO in March 2023, please also see the Outside Director Dialogue section on pages 76-80.

Corporate Governance

Executive Remuneration Plan

Overview

The Company has adopted a performance-linked remuneration plan for directors (excluding outside directors and directors who are members of the Audit and Supervisory Committee) and executive officers. This plan is designed to improve medium- to long-term business performance, provide incentives for increasing enterprise value and shareholder value, sustainably share economic interests with shareholders, encourage a willingness among directors and executive officers to take on challenges, and ensure transparency and objectivity in the remuneration determination and performance evaluation processes.

Under this plan, remuneration is composed of three parts: basic remuneration, which is monetary remuneration; annual incentive remuneration; and non-monetary medium- to long-term incentive remuneration. Levels are competitive compared to leading domestic companies, and the weight of management responsibility is reflected in the higher percentage of incentive remuneration in the remuneration of higher-ranked executives.

Incentive plans

Annual incentive remuneration

Annual incentive remuneration is based on the evaluation of Group business performance, evaluation of the efforts of ESG targets, and individual evaluations determined each year by the Nomination and Remuneration Committee.

Until FY2022, performance evaluations were based on consolidated ordinary profit (excluding the impact of inventory valuation), but to ensure consistency with the shareholder return policy announced in the Seventh Consolidated Medium-Term Management Plan, consolidated net profit (excluding the impact of inventory valuation) is now the standard for performance evaluation.

Beginning in FY2022, efforts towards ESG targets have been factored into remuneration, fostering an environment that motivates directors and executive officers to address material issues promptly and earnestly, thereby promoting sustainable management. For ESG targets that serve as indicators, please refer to the material issue KPIs in the Seventh Consolidated Medium-Term Management Plan shown on page 52 of this report.

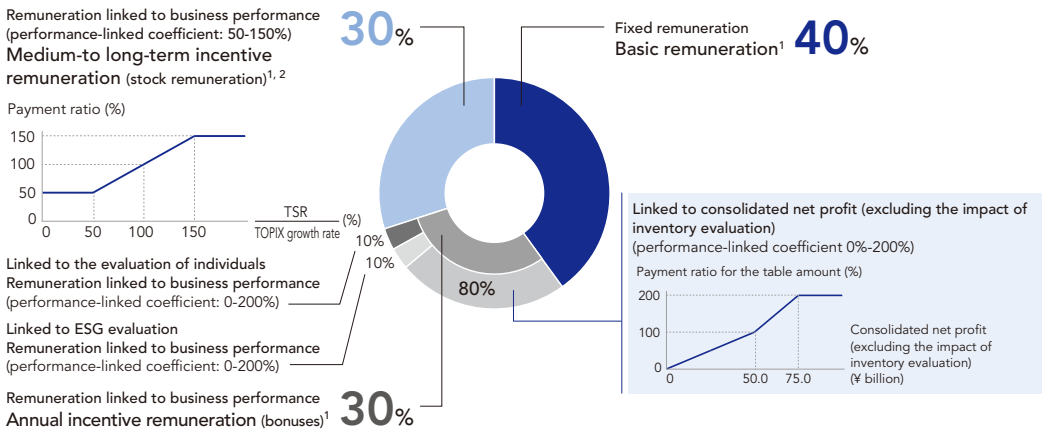
Medium- to long-term incentive remuneration

Medium- to long-term incentive remuneration is provided in the form of a performance-linked stock remuneration plan and non-monetary in nature. An incentive plan is established every year and is evaluated over three consecutive business years in consideration of the execution of duties during the applicable period. For the incentive plan established in FY2023, the evaluation period will be three consecutive business years from FY2023 to FY2025. For each executive officer eligible under this system, 50% of the basic points determined for each position will be awarded based on performance and the remaining 50% based on other factors. The performance-linked coefficient is determined based on the Company's total shareholder return (TSR) relative to the TOPIX growth rate and the consolidated net debt-to-equity ratio.

Stock ownership guidelines

To ensure that value is shared sustainably with all stakeholders, we established stock ownership guidelines for the Group's executive officers, which took effect in FY2023. Including potential stock holdings (the non-performance-linked portion of basic points granted through medium- to long-term incentive remuneration), the chairman and the Group CEO of the Company will receive 1.5 times their annual basic remuneration within five years of assuming their respective positions. For other executive officers of the Group, the goal is a standard holding value equivalent to annual basic remuneration within five years of assuming their respective positions.

Executive officer remuneration plan (example)



1 The basic remuneration, annual incentive remuneration, and medium- to long-term incentive remuneration distribution ratio varies depending on the executive position.
2 Linked to FY2023-2025 total shareholder return (TSR) relative to the TOPIX growth rate and the consolidated net debt-to-equity ratio

Outside Director Dialogue

Enhancing enterprise value by executing the Seventh MTMP based on productive discussions by the Board of Directors under the leadership of the new CEO



Keiichi Asai

Independent Outside Director

Keiichi Asai spent most of his career working in the energy sector, including petroleum business departments, such as oil sales, supply and demand, and refining, at Mitsubishi Corporation. After being named Executive Officer of the same company, he went on to become Executive Vice President of Lithium Energy Japan and served as Representative Director, President and CEO of KH Neochem Co., Ltd. He was appointed as Outside Director and Audit and Supervisory Committee Member of Cosmo Energy Holdings in June 2021.

Yasuko Takayama

Independent Outside Director

Yasuko Takayama worked as General Manager of the Consumer Relations and Corporate Social Responsibility departments, and served as a Full-time Audit and Supervisory Board Member at Shiseido Co., Ltd. She has also held other positions, such as Outside Director of The Chiba Bank, Ltd. and Outside Audit and Supervisory Board Member of Yokogawa Electric Corporation. She has served as Outside Director and Audit and Supervisory Committee Member of Cosmo Energy Holdings since June 2019.

Productive discussions during formulation of Vision 2030 and the Seventh Consolidated Medium-Term Management Plan

Takayama I was appointed as Outside Director and Audit and Supervisory Committee Member of the Company in June 2019, and feel strongly that Board of Directors meetings have evolved over the years into a forum for candid discussion. While I believe this is largely due to improvement efforts following the Board of Director meeting effectiveness evaluation, as well as the method and ingenuity of the Chair in facilitating meetings, discussions on proposals and overall content have become more productive. This enables discussion on the direction of our management strategy from a broad perspective.



In formulating the Seventh Consolidated Medium-Term Management Plan (hereafter, "the Seventh MTMP"), I was involved in thorough discussions as an outside director over the course of about two years. Specifically, from FY2021, we began fleshing out our long-term vision and explored the direction we should take as we look ahead to 2030 and 2050.

Based on the long-term vision discussed, we held nine separate discussions during Board of Directors and other meetings from FY2022 to formulate the Seventh MTMP. I feel that the degree of outside director involvement in this process was extremely high.

Asai Looking back at the Sixth MTMP, our priority as a company was to improve our financial health. I believe the fact that we were able to achieve this most important goal one year ahead of schedule is due to the ability of our then CEO, Mr. Kiriyama (current Chairman), to fully utilize his skills as a leader.

When formulating the Seventh MTMP, we engaged in discussions by backcasting from our vision of how the Company will be in the future. Capital policy and our approach to investment were key as we considered how to grow our existence value as a company during the period until FY2030. Furthermore, recognizing that oil will still be a necessary energy source as of 2030, we reached the conclusion that it would be important to ensure profitability and to strengthen and improve our business foundation during the three-year period of the Seventh MTMP (FY2023-2025).

Takayama In terms of the external environment, there is clearly a call for companies to rapidly decarbonize. I recognize that companies like those in our Group make the transition is a critical management agenda and a societal demand at large.

The Company has accelerated its efforts over the past few years, starting with our endorsement of the Task Force on Climate-related Financial Disclosures (TCFD) in 2020. This was followed by the announcement of our Carbon Net Zero Declaration in 2021 and our roadmap to achieve Carbon Net Zero in FY2022, as well as a review of material issues. I believe the process flowed extremely well in that we were able to bring all these initiatives together in the Seventh MTMP, including our sustainability strategy. Moreover, as the Sixth MTMP was viewed by the capital market as a bit cautious in terms of shareholder returns, we deepened our discussions on capital policy as part of the Seventh MTMP.

Asai While our investment plan calls for ¥400.0 billion to be invested in *New* fields by 2030, the most memorable part of the planning process was the discussions we had on what to invest in, how much to invest, and how to manage these investments to ensure growth.

Regarding capital policy, I was also impressed that after heated debate on whether to prioritize shareholder returns, financial health, or capital efficiency to enhance enterprise value, all directors eventually agreed on the expression "three-pronged capital policy." The level of outside director contribution was significant in the sense that discussions proceeded in the direction outside directors envisioned and the results of our discussions were expressed well.

Proactive setting and disclosure of KPIs and laying out a growth roadmap in the Seventh MTMP

Asai I highly commend the incorporation of return on invested capital (ROIC) into our management goals from the perspective of investment management. ROIC is an indicator that allows us to make investments with an awareness of the cost of capital, which must always exceed the weighted average cost of capital (WACC). It is also suitable for making investment decisions over a three- to five-year span and is beneficial in that it makes segment management easier. I feel that the Company's decision to go into this level of detail when it comes to capital efficiency, including the disclosure of ROIC targets in numerical terms, is a sign that we are becoming more confident as a company in our performance.

Takayama While it is of course important to commit to and achieve numerical targets, I believe that it is also imperative that we carefully manage the process by which we achieve these targets each year and disclose evidence of our efforts for better understanding among our stakeholders.

In terms of the direction of the Seventh MTMP, we defined the "establish green electricity supply chain profit foundation" as a way to expand *New* fields to drive growth. As the strength of the Group lies in the fact that we have a presence in both the renewable energy generation and retail sales sectors, bolstering the supply chain by building supply-demand adjustment and energy storage businesses to connect the two is precisely the right course of action, and I very much applaud this plan.

At the same time, I recognize that one issue is that we have not yet been able to fully provide clarity on the specific timing and size of the returns on these investments. I hope that we will be able to explain these points during the period of the Seventh MTMP.

Asai The Group's green electricity supply chain constitutes a business model that starts with wind power generation and storage will be an extremely vital area to minimize generation losses. Furthermore, making use of the Group's existing customer network data will serve as a source for generating revenue throughout the entire process from electric power supply to sales.

Although some would suggest spinning off our Renewable Energy Business, the Group has a social responsibility to provide a safe and stable energy supply, even in the event of disasters or other emergencies, and we must fulfill this responsibility across the entire supply chain.

In terms of the expansion of next-generation energy, we aim to begin mass production of Japan's first locally-made SAF[1] in 2025 and to produce 300,000 kiloliters by 2030. While the competitiveness of airlines is tied to how much they can reduce fuel costs, the supply side needs to ensure profitability.

Takayama I believe that domestically-produced SAF has great symbolic value in that we will be the first company in Japan to achieve mass production. However, in terms of volume, I recognize that expanding the scale of production is a key challenge we must tackle, as there is still a shortage relative to aviation fuel demand.

Another pillar of the Seventh MTMP is the transformation of our management foundation. Areas such as compliance, risk management, safe operations, and stable supply are also important



elements of our management foundation from the standpoint of protecting enterprise value. That being said, we pursued in-depth analysis on the contemporary themes of HRX, DX, and GX[2] during the process of formulating the medium-term management plan and set appropriate KPIs which we announced publicly.

Regarding GX, the Renewable Energy Business is one of the Group's strengths, and I believe that focusing of this business will enable us to further contribute to reducing GHG emissions. At the same time, while we have made progress in terms of disclosing our efforts to achieve carbon neutrality, I recognize that there

1 SAF (Sustainable Aviation Fuel): fuel produced mainly from biomass-derived raw materials, including plants, as well as waste and waste cooking oil from restaurants and households. It enables the reduction of carbon dioxide emissions compared to fossil fuels.
2 HRX (Human Resources Transformation), DX (Digital Transformation), GX (Green Transformation)



are still issues to be addressed when it comes to the accuracy of disclosures around Net Zero emissions, including Scope 3.

In terms of diversity and inclusion (D&I), in the HRX initiative, I believe that we are becoming more diverse in terms of the gender mix in our management team, with women accounting for one third of our nine directors. If we include executive officers, there are now four women at the director or executive level. However, due to the low proportion of female employees in the energy industry as a whole, there is no denying that, numerically, the ratio of female managers across the Group is still low. Since we have developed a vast pool of exceptional talent, I expect that the number of female executives will continue to rise in the future.

Asai To facilitate the promotion of DX, we appointed a female Chief Digital Officer (CDO)[3] from outside the Group in November 2021. She seems like the type of leader we have never had in our group before. She is very precise and has a strong ability to connect with others. If we were able to encourage outside talent like her to play an active role, I believe the atmosphere in the workplace would change dramatically.

Takayama Since her assumption of the CDO role, the mood of the entire organization has improved, and the awareness of individual employees has also changed. I also have high expectations for the success of the CDO and for the aggressive promotion of DX.

3 CDO (Chief Digital Officer)

Succession planning to support sustainable growth and efforts toward a more comprehensive skills matrix

Asai At the Company, succession planning is one of the most important strategies for ensuring sustainable growth. Through job assignments and external training, we assess the pool of leadership candidates to determine whether they possess the capabilities and qualities befitting a CEO.

The Nomination and Remuneration Committee is provided with information on performance evaluations and multilateral human resource evaluations for each fiscal period. The CEO ultimately selects the final candidate and drafts a proposal to put to the Nomination and Remuneration Committee, which in turn examines the suitability of the nominee and reports back to the Board of Directors.

When considering the suitability of a candidate, in addition to human resource evaluation information, the committee also takes advantage of regular meetings, job briefings, interviews, and other opportunities to continuously observe the candidate over an extended period.

Everyone agrees that the reason Mr. Yamada was chosen as Group CEO is that he has a broad understanding of our business operations, as evidenced by his professional background. He is also highly personable and has the strong leadership skills and charisma to unify those around him. After his appointment, I was reminded that he has the courage to remain steadfast even in times of crisis.

Takayama I completely agree with you and think that courage is the perfect word to describe Mr. Yamada. He is also adept at appropriately discerning what information is necessary and what to disregard from the overwhelming amount of information coming in from all directions amid these times of sudden change in our external environment. He is also able to grasp the essence of a situation by objectively looking at the whole picture.

I believe that he is steering the Group in a very balanced manner, being neither too optimistic nor too pessimistic.

Several months have passed since he assumed the role of Group CEO, and I am now even more convinced than I was at the time of Mr. Yamada being the right choice for this role.

Asai I recognize that the current Board of Directors makeup is extremely balanced in terms of both the skills matrix and gender. The skills we are looking for in next-generation director candidates are experience in each of the business fields

defined under *Oil & New*, the ability to drive transformation in terms of DX and GX (which form our management foundation), and the financial and accounting skills required during a period of industry transformation.

Takayama Regarding Board of Directors composition, I also appreciate the fact that each individual's skill set complements that of others. The Board is very well balanced in that outside directors possess the skills that internal directors are lacking.

As for the future, although I share some of your views, I would like to add those who can draft, execute, and monitor financial strategies and capital policies to ensure that we enhance enterprise value which is the theme of the Seventh MTMP. Of course, they should also possess knowledge and experience in our businesses, as well as fundamental risk management, compliance, and governance skills. I have high hopes for such talent as well as those who can help propel transformation of our management foundation, such as in the areas of DX and GX. If we successfully reinforce these areas, I believe that discussions at Board of Directors meetings will be even more fruitful.

Enhancing enterprise value by bolstering profitability and increasing expectations for the future

Takayama During Board meetings, in addition to discussing capital policy, we also engaged in spirited debate from the perspective of how to ensure that this leads to enhanced enterprise value. While we set a target return on equity (ROE) of 10% or more under the Seventh MTMP, how to raise expectations for the future was also a topic of discussion. However, I believe that disclosure methods and other outstanding issues need to be discussed in greater depth.

With respect to price book-value ratio (PBR), I recognize that despite us having a slight advantage over other oil wholesalers, PBR remains low across the industry as a whole, with the Petroleum Business being undervalued given the current trend toward decarbonization.

Asai I completely agree. Heavy and large-scale industries that are under pressure to decarbonize, including oil wholesalers, tend to have a low PBR. On the other hand, I understand that the intention behind Tokyo Stock Exchange's call for companies to address cost of capital and stock price in their management plans, was not for them to take temporary measures that rely on share buybacks and dividend increases, but rather out of a desire to see companies fundamentally bolster their profitability.

Therefore, it is important to pursue cost of capital-conscious corporate management by aiming to improve not only our PBR, but also various other management indicators, and to create an environment that will enable the Group to enhance our enterprise value. Since profitability will not increase unless we first strengthen our core businesses, I believe that the best course of action is to seek to enhance enterprise value while taking an integrated approach to implementing our business strategies and transforming management foundation.

Takayama In addition to bolstering profitability, as you mentioned, I also think that it is important to raise future expectations in the capital market and, in turn, to be able to explain ourselves properly to this market. Specifically, as the Petroleum Business has a social responsibility to provide a stable supply of oil, as a Group, we must explain that our mission is to fulfill this responsibility as long as it is required. Meanwhile, in the Renewable Energy Business, I believe there is a need for us to provide a more detailed cost-benefit analysis on our investments.

In terms of the narrative for raising growth expectations, it is necessary for us to show how we will translate the Group's human resources, technology, expertise, and brand into economic value, as well as to share KPIs to demonstrate progress being made in our initiatives.

Considering all these factors, I hope that we can engage in more effective external communication and collectively enhance enterprise value through dialogue with the capital market. Realistically, I understand that this is not easy, but this is the envisioned goal.



Directors and Executive Officers (as of July 1, 2023)

Directors



Apr. 1979 Joined Daikyo Oil Co., Ltd.
Jun. 2013 Director, Senior Executive Officer, Cosmo Oil Co., Ltd.
Oct. 2015 Director, Senior Managing Executive Officer of the Company
Jun. 2016 Representative Director, Executive Vice President
Jun. 2017 Representative Director, Group CEO
Apr. 2023 Representative Director, Group Chairman (current position)

Hiroshi Kiriyama has worked for many years in the supply and demand and corporate planning divisions, including participating in decision-making on various alliances in Japan and overseas, and possesses extensive expertise and experience in all areas of corporate management. In addition, he managed the Group as Representative Director and CEO from June 2017, and notably, in recent years he achieved results despite an environment of fluctuating crude oil prices, declining oil demand, and other adverse conditions.

Hiroshi Kiriyama

Representative Director, Group Chairman



Apr. 1988 Joined Cosmo Oil Co., Ltd.
Jun. 2015 General Manager, Supply Dept.
Apr. 2018 Executive Officer, General Manager, Corporate Planning Dept. of the Company
Apr. 2020 Senior Executive Officer
Jun. 2020 Director, Senior Executive Officer
Apr. 2023 Representative Director, Group CEO (current position)

Shigeru Yamada has worked mainly in the sales, supply and demand, and corporate planning divisions, and has extensive knowledge and experience across the Group's business domains. Having been appointed Executive Officer and General Manager of the Corporate Planning Dept. in 2018 and as Director and Senior Executive Officer in 2020, he has steadily produced results across various areas, including formulation of the Seventh Consolidated Medium-Term Management Plan, promotion of Group management, overall control related to capital and business alliances, and development of new business projects.

Shigeru Yamada

Representative Director, Group CEO



Nov. 1992 Joined Cosmo Oil Co., Ltd.
Jun. 2015 General Manager, Finance Dept.
Oct. 2015 General Manager, Finance Dept. of the Company
Jun. 2016 Executive Officer, General Manager, Finance Dept.
Apr. 2018 Senior Executive Officer
Jun. 2018 Director, Senior Executive Officer
Jun. 2020 Representative Director, Senior Executive Officer
Apr. 2021 Representative Director, Senior Managing Executive Officer (current position)

Takayuki Uematsu joined Cosmo Oil Co., Ltd. after working for a foreign financial institution. He has since demonstrated his expertise having almost exclusively worked in the finance division. He was appointed Director and Senior Executive Officer in 2018 and Representative Director and Senior Managing Executive Officer in 2021. Since 2022, he has supervised the Sustainability Initiative Dept., Finance Dept., and Accounting Dept., steadily implementing sustainable management and demonstrating leadership toward the achievement of net zero carbon emissions.

Takayuki Uematsu

Representative Director, Senior Managing Executive Officer



Apr. 1990 Joined Cosmo Oil Co., Ltd.
Oct. 2015 General Manager, Human Resource and General Affairs Dept.
Apr. 2017 General Manager, Planning and Management Dept.
Apr. 2019 Director, Executive Officer
Apr. 2020 Executive Officer, General Manager, Human Resource Dept. of the Company
Apr. 2022 Senior Executive Officer
Jun. 2022 Director, Senior Executive Officer (current position)

Junko Takeda worked in sales, planning, human resources, and other divisions. In 2019, she went on to supervise the Refining Business as Director and Executive Officer in charge of corporate planning and human resources at Cosmo Oil Co., Ltd., contributing to an increase in operational efficiency and improved productivity of the business. Since being appointed Executive Officer and General Manager of the Company's Human Resource Dept. in 2020, she has produced steady results by promoting workstyle reform, encouraging diversity, and driving personnel affairs across the Group. From 2022, as Director and Senior Executive Officer, she has supervised the Business Portfolio Management Dept., Legal and General Affairs Dept., and Human Resource Dept., achieving solid results such as formulation of the Seventh Consolidated Medium-Term Management Plan, Human Rights Policy, and Human Resources Policy.

Junko Takeda

Director, Senior Executive Officer



Apr. 1981 Joined Ministry of Agriculture, Forestry and Fisheries (MAFF)
Jan. 2003 Minister, Embassy of Japan in Italy
Apr. 2016 Deputy Director-General, Agriculture, Forestry and Fisheries Research Council, MAFF
Jul. 2017 Retired from MAFF
Nov. 2017 Registered as attorney-at-law, Of Counsel, Atsumi & Sakai (current position)
Jun. 2019 Outside Director, Nippon Steel Trading Corporation
Jun. 2021 Independent Outside Director of the Company (current position)
Jun. 2023 Outside Director, NS United Kaiun Kaisha, Ltd. (current position)

After joining the Ministry of Agriculture, Forestry and Fisheries in 1981, Ryuko Inoue took up the position of Permanent Representative of Japan to the Food and Agriculture Organization of the United Nations (FAO) and the United Nations World Food Program (WFP) in 2003, contributing to the growth of the global economy. She registered as an attorney-at-law in 2017 and is currently a member of Atsumi & Sakai. She possesses a wide range of experience and advanced international expertise, cultivated as a representative of Japan in international organizations, with compliance, internal control, and corporate governance being one of her main areas of practice as an attorney-at-law. She has contributed to the enhancement of the Group's enterprise value, particularly in the areas of governance and risk management.

Ryuko Inoue

Independent Outside Director



Apr. 1984 Joined Ministry of Construction (currently Ministry of Land, Infrastructure, Transport and Tourism (MLIT))
Sep. 2007 Counselor, Cabinet Secretariat
Jul. 2009 Director, Urban Renewal Promotion Division, City and Regional Development Bureau, MLIT
Jul. 2011 Counselor, the Headquarters for the Reconstruction from the Great East Japan Earthquake
Feb. 2012 Counselor, Reconstruction Agency
Aug. 2013 Director, Personnel Division, MLIT
Jul. 2015 Director-General, City Bureau, MLIT
Jul. 2018 Director-General, Policy Bureau, MLIT
Jul. 2020 Vice-Minister, Land, Infrastructure, Transport and Tourism, MLIT
Jul. 2021 Resigned from the above position
Oct. 2021 Corporate Advisor, Sumitomo Mitsui Trust Bank, Limited (current position)
Jun. 2022 Independent Outside Director of the Company (current position)

Takuya Kurita joined the Ministry of Construction (currently the Ministry of Land, Infrastructure, Transport and Tourism) in 1984, and was appointed Director of the Urban Renewal Promotion Division, City and Regional Development Bureau of the Ministry in 2009, where he contributed to the development of the Japanese economy through urban development. He was appointed as Counselor of the Reconstruction Headquarters in response to the Great East Japan Earthquake in 2011, where he directed reconstruction policy, and was appointed as Vice-Minister of Land, Infrastructure, Transport and Tourism in 2020. With a wide range of experience and social knowledge cultivated through his many years of experience, he was instrumental in the development of the Company's Seventh Consolidated Medium-Term Management Plan, particularly in making recommendations related to new businesses.

Takuya Kurita

Independent Outside Director

Directors and Executive Officers (as of July 1, 2023)

Directors



Toshiyuki Mizui

Director, Full-time Audit and Supervisory Committee Member

Aug. 1993 Joined Cosmo Oil Co., Ltd.
Jun. 2012 General Manager, Internal Auditing Office
Oct. 2015 General Manager, Internal Auditing Office of the Company
Apr. 2016 General Manager, Accounting Dept.
Jun. 2016 Executive Officer, General Manager, Accounting Dept.
Apr. 2018 Representative Director and CEO, Eco Power Co., Ltd. (currently Cosmo Eco Power Co., Ltd.)
Jun. 2020 Director of the Company (Full-time Audit and Supervisory Committee Member) (current position)
Outside Director (Audit and Supervisory Committee Member), Kyoei Tanker Co., Ltd. (current position)

Toshiyuki Mizui joined Cosmo Oil Co., Ltd. after working for a general electronic component manufacturer and has spent most of his career working in the accounting division. After his appointment as Executive Officer of the Company, he continued to oversee the accounting division, and since 2018, he has been leading the wind power generation business at the current Cosmo Eco Power Co., Ltd. and has contributed to the Group's operations. Since 2020, he has ensured proper audits and oversight of business execution as a Director who is also an Audit and Supervisory Committee Member.



Yasuko Takayama

Independent Outside Director, Audit and Supervisory Committee Member

Apr. 1980 Joined Shiseido Co., Ltd
Apr. 2009 General Manager, Social Affairs and Consumer Relations Dept.
Apr. 2010 General Manager, Corporate Social Responsibility Dept.
Jun. 2011 Full-time Audit and Supervisory Board Member
Jun. 2015 Outside Director, Nippon Soda Co., Ltd.
Outside Director, The Chiba Bank, Ltd. (current position)
Jun. 2016 Outside Audit and Supervisory Board Member, Mitsubishi Corporation
Jun. 2017 Outside Audit and Supervisory Board Member, Yokogawa Electric Corporation (current position)
Jun. 2019 Independent Outside Director of the Company (Audit and Supervisory Committee Member) (current position)

After serving as General Manager of the Consumer Relations and Corporate Social Responsibility departments and a Full-time Audit and Supervisory Board Member at Shiseido Co., Ltd., Yasuko Takayama went on to serve as an Outside Director and Outside Audit and Supervisory Board Member for several listed companies. Her accomplishments include her efforts to fulfill the Sixth Consolidated Medium-Term Management Plan (especially in the areas of ESG and brand communication strategy) and in the formulation of the Seventh Consolidated Medium-Term Management Plan (notably in terms of management foundation transformation (HRX/DX/GX) and non-financial initiatives). Furthermore, as Chairperson of the Audit and Supervisory Committee, she has made suggestions and proposals aimed at structural strengthening, particularly in the areas of compliance, risk management, and Group governance, based on her previous experience and extensive expertise in corporate governance.



Keiichi Asai

Independent Outside Director, Audit and Supervisory Committee Member

Apr. 1978 Joined Mitsubishi Corporation
Apr. 2009 Executive Officer, Head of CEO Office, Energy Group
Apr. 2013 Executive Vice President, Lithium Energy Japan
Sep. 2014 Representative Director, President, and CEO, KH Neochem Co., Ltd.
Jun. 2021 Independent Outside Director of the Company (Audit and Supervisory Committee Member) (current position)
Jun. 2022 Outside Director, Sun Frontier Fudousan Co., Ltd. (current position)

Keiichi Asai spent most of his career working in the energy sector, including petroleum business departments, such as oil sales, supply and demand, and refining, at Mitsubishi Corporation. After being named Executive Officer of the same company, he went on to become Executive Vice President of Lithium Energy Japan in 2013 and was appointed Representative Director, President, and CEO of KH Neochem Co., Ltd. in 2014. He has international knowledge that includes postings in the US and India, as well as extensive expertise and experience related to corporate management in general. He has achieved success in areas such as the formulation of the Company's Seventh Consolidated Medium-Term Management Plan (particularly in terms of strengthening investment and capital management) and efforts to reinforce the Group's governance structure. As Chairperson of the Nomination and Remuneration Committee, his achievements include the establishment and promotion of the Board of Directors' structure, including succession planning, and a performance-linked executive remuneration plan.

Executive Officers



Noriko Rzonca

Senior Executive Officer, CDO
In charge of Corporate DX
Strategy Dept., Corporate Communication Dept., IT Initiative Dept.



Taisuke Matsuoka

Senior Executive Officer
In charge of Corporate Planning Dept., Power and New Energy Dept.



Yoshihiko Sato

Executive Officer
General Manager, Secretariat Office



Tomoki Iwai

Executive Officer
General Manager, Accounting Dept.



Hideyuki Wakao

Executive Officer
General Manager, Internal Auditing Office
Substitute Director, Audit and Supervisory Committee Member

Skills Matrix

Based on the Seventh Consolidated Medium-Term Management Plan, the Company has defined the skills required of Directors and Executive Officers as follows.
From FY2023, we have disclosed the definition of each skill area, as well as the areas in which each individual officer has a higher level of expertise.
By defining a skills matrix not only for Directors but also for Executive Officers, we have created a structure to encourage officers, including Executive Officers, to work together to promote the Seventh Consolidated Medium-Term Management Plan.

Skill area	Definition
Corporate management	Has experience in business execution as CEO or in another role at an operating company, and possesses the ability to lead an organization in accordance with management strategy
Petroleum Business (*Oil*)	Has specialist knowledge of the petroleum business, and possesses the ability to enhance enterprise value
Other businesses (*New*) (Renewable Energy Business/ new businesses)	Has been involved in the Renewable Energy Business and new business projects, and possesses the ability to make comprehensive judgments about new business models and profitability
Sustainability (ESG)/ risk management	Possesses the ability to pursue sustainable management from the perspective of sustainability and ESG, in order to achieve sustainable growth
Personnel affairs/human resource development/diversity	Has knowledge and experience in implementing human resource strategies, and possesses the ability to draft management strategies from the perspective of personnel affairs, labor management, and diversity

Skill area	Definition
DX/IT	Has knowledge and experience in digital technology and IT, and possesses the ability to enhance the efficiency and productivity of business operations, sales, and other functions
PR/IR/brand marketing	Is capable of strategically deploying PR activities and making related comprehensive judgments and decisions, and possesses the ability to take the lead in enhancing and creating enterprise value
Finance/accounting/taxation	Has the finance, accounting, and taxation expertise required to develop financial and accounting strategies, and possesses the ability to properly carry out the Group's financing and financial statement closing tasks
Legal affairs/compliance	Has expertise in corporate legal affairs and compliance, and possesses the ability to provide supervision to ensure sound corporate management
Global-mindedness	Has overseas business experience, understands different cultural perspectives and practices among other things, and possesses the ability to make management decisions from a global perspective

Name		Gender	Title	Committee membership, responsibilities, etc.	Number of years as director[1]	Experience, knowledge, and expertise etc.[2, 3]									
						Corporate management	Petroleum Business (*Oil*)	Other businesses (*New*) (Renewable Energy Business/ new businesses)	Sustainability (ESG)/risk management	Personnel affairs/ human resource development/ diversity	DX/IT	PR/IR/brand marketing	Finance/ accounting/ taxation	Legal affairs/ compliance	Global-mindedness
Directors	Hiroshi Kiriyama	♂	Representative Director, Group Chairman	Chair, Board of Directors Nomination and Remuneration Committee Member	8	◎	◎	○	○	—	—	○	—	—	—
	Shigeru Yamada	♂	Representative Director, Group CEO	—	3	◎	◎	○	—	—	—	○	—	—	—
	Takayuki Uematsu	♂	Representative Director, Senior Managing Executive Officer	Sustainability Initiative Dept., Accounting Dept., Finance Dept.	5	◎	—	—	○	—	—	○	◎	—	—
	Junko Takeda	♀	Director, Senior Executive Officer	Business Portfolio Management Dept., Legal and General Affairs Dept., Human Resource Dept.	1	—	◎	—	—	◎	—	—	—	○	—
	Ryuko Inoue	♀	Independent Outside Director[4]	Nomination and Remuneration Committee Member	2	—	—	—	○	○	—	—	—	◎	○
	Takuya Kurita	♂	Independent Outside Director[4]	Nomination and Remuneration Committee Member	1	—	—	◎	—	○	○	—	—	—	—
	Toshiyuki Mizui	♂	Director, Full-time Audit and Supervisory Committee Member	Audit and Supervisory Committee Member	3	○	—	○	—	—	—	—	◎	○	—
	Yasuko Takayama	♀	Independent Outside Director, Audit and Supervisory Committee Member[4]	Nomination and Remuneration Committee Member Chairperson, Audit and Supervisory Committee	4	—	—	—	◎	○	—	○	—	○	—
	Keiichi Asai	♂	Independent Outside Director, Audit and Supervisory Committee Member[4]	Chairperson, Nomination and Remuneration Committee Audit and Supervisory Committee Member	2	◎	○	○	—	—	—	—	—	—	○
Executive Officers	Noriko Rzonca	♀	Senior Executive Officer, CDO	Corporate DX Strategy Dept., Corporate Communication Dept., IT Initiative Dept.	—	—	—	—	—	—	◎	○	—	—	○
	Taisuke Matsuoka	♂	Senior Executive Officer	Corporate Planning Dept., Power and New Energy Dept.	—	—	◎	○	—	—	—	—	—	—	—
	Yoshihiko Sato	♂	Executive Officer	General Manager, Secretariat Office	—	—	◎	—	—	—	—	—	—	—	○
	Tomoki Iwai	♂	Executive Officer	General Manager, Accounting Dept.	—	—	○	—	—	—	—	—	◎	—	—
	Hideyuki Wakao	♂	Executive Officer (newly appointed)	General Manager, Internal Auditing Office Substitute Director, Audit and Supervisory Committee Member	—	—	○	—	—	—	—	—	◎	○	—
		Male ♂ Female ♀				5	8	6	4	4	2	5	4	5	4

Notes: 1 The number of years as director only takes into account the period following the establishment of Cosmo Energy Holdings in October 2015. Figures were calculated by counting the period from October 2015 to the date of the General Meeting of Shareholders in June 2016 as one year. If the calculation was to include the years served at Cosmo Oil Co., Ltd., former CEO, Mr. Hiroshi Kiriyama, would have served nine years because he was appointed as a director in June 2013.
2 The expertise and attributes of each director disclosed here includes the areas in which they have outstanding knowledge and experience. It is not an exhaustive list of the capabilities of each director.
3 ◎ indicates the areas in which the individual has a higher level of expertise.
4 The requirements for independent officers/auditors based on the regulations of the Tokyo Stock Exchange have been fulfilled.

Eleven-Year Selected Financial and Operating Data

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Fiscal year											(¥ Million)
Foreign exchange rate (¥/US$)	83.0	100.2	109.9	120.1	108.4	110.9	110.9	108.8	106.0	112.4	**135.5**
Dubai crude oil price (US$/barrel)	107.0	104.6	83.5	45.7	46.9	55.9	69.3	60.3	44.5	78.1	**92.5**
Net sales	3,166,689	3,537,782	3,035,818	2,244,306	2,292,280	2,523,106	2,770,365	2,738,003	2,233,250	2,440,452	**2,791,872**
Cost of sales	2,989,274	3,369,007	2,944,919	2,154,615	2,079,727	2,282,710	2,539,936	2,586,244	2,000,584	2,061,600	**2,471,141**
Selling, general and administrative expenses	124,992	129,060	129,346	119,433	120,370	128,526	135,775	137,865	131,376	143,548	**156,949**
Operating profit (loss)	52,422	39,715	-38,447	-29,742	92,182	111,868	94,653	13,893	101,289	235,303	**163,780**
Impact of inventory valuation[1]	15,264	16,068	-116,177	-68,703	39,400	21,044	-10,788	-52,179	20,740	72,324	**21,604**
Operating profit (loss) excluding the impact of inventory valuation	37,158	23,647	77,730	38,961	52,782	90,824	105,441	66,072	80,549	162,979	**142,176**
Ordinary profit (loss)	48,439	41,847	-49,640	-36,121	81,448	116,850	96,654	16,285	97,370	233,097	**164,505**
Ordinary profit (loss) excluding the impact of inventory valuation	33,173	25,778	66,537	32,644	42,048	95,806	107,442	68,464	76,630	160,773	**142,900**
Petroleum Business	-38,960	-41,394	22,067	5,784	1,770	37,776	24,964	4,378	53,317	93,225	**44,072**
Petrochemical Business	3,343	3,692	-6,977	4,291	22,177	30,441	15,344	5,185	-3,319	13,617	**3,825**
Oil E&P Business	60,688	58,141	47,538	18,637	9,347	18,251	56,900	45,030	13,859	44,761	**84,512**
Renewable Energy Business[9]	—	—	—	—	—	—	—	—	4,134	3,483	**2,587**
Others	8,102	5,339	3,909	3,932	8,754	9,338	10,233	13,869	8,637	5,686	**1,488**
Profit (loss) before income taxes	-2,536	49,443	-44,599	-43,797	78,565	109,274	95,966	13,913	93,648	211,593	**153,263**
Profit (loss) attributable to owners of parent[2]	-85,882	4,348	-77,729	-50,230	53,235	72,813	53,132	-28,155	85,910	138,890	**67,935**
Capital expenditures	83,429	41,243	70,396	82,775	120,302	109,085	80,380	87,872	79,624	57,064	**71,941**
R&D expenses	3,765	3,271	3,077	3,104	4,269	4,540	4,096	4,448	3,975	4,803	**5,342**
Depreciation and amortization[3]	44,953	35,330	32,399	30,713	37,769	42,130	54,225	57,606	57,530	58,045	**58,172**
Cash flows from operating activities	-20,950	35,837	163,384	18,427	47,625	192,634	90,450	111,733	167,445	108,361	**8,122**
Cash flows from investing activities	-80,481	-61,007	-30,126	-32,839	-112,038	-96,432	-84,521	-84,230	-84,584	-67,511	**-81,178**
Cash flows from financing activities	104,695	12,555	-178,920	32,499	9,626	-76,757	-20,480	-24,675	-80,570	-42,040	**81,137**
At year-end											(¥ Million)
Total assets	1,743,492	1,696,831	1,428,628	1,409,615	1,525,679	1,688,288	1,702,270	1,639,765	1,709,017	1,938,408	**2,120,763**
Non-controlling interests[4]	26,475	29,214	40,326	94,665	108,063	117,468	120,785	123,047	124,173	127,771	**135,485**
Net worth	230,456	231,927	167,194	108,046	164,722	238,677	281,065	239,792	324,946	456,200	**527,895**
Total current assets	967,148	921,790	621,578	516,254	561,604	657,160	641,731	572,619	605,808	867,983	**1,036,040**
Total current liabilities	816,611	799,199	603,860	555,519	655,473	800,146	764,734	706,080	752,488	954,675	**1,012,579**
Net interest-bearing debt[5]	713,190	723,257	597,701	666,179	727,258	635,763	644,663	628,317	556,379	503,330	**581,875**
Number of outstanding shares (thousands)[6]	847,705	847,705	847,705	84,770	84,770	84,770	84,770	84,770	84,770	84,770	**88,353**
Per share data[7]											(¥)
Profit (loss) attributable to owners of parent	-101.39	5.13	-91.77	-594.85	633.32	865.80	630.69	-334.84	1,025.86	1,658.64	**811.15**
Diluted profit attributable to owners of parent	—	—	—	—	—	—	594.03	—	861.16	1,389.40	**726.65**
Net assets	272.07	273.81	197.39	1,286.03	1,958.91	2,837. 90	3,333.81	2,853.14	3,882.72	5,446.39	**6,042.41**
Cash dividends	—	2.00	—	40.00	50.00	50.00	80.00	80.00	80.00	100.00	**150.00**
Ratios											
Net worth ratio (%)	13.2	13.7	11.7	7.7	10.8	14.1	16.5	14.6	19.0	23.5	**24.9**
Net debt-to-equity ratio (times)[8]	3.1	3.1	3.6	4.6	3.6	2.3	1.98	2.41	1.59	1.04	**1.10**
Return on equity (ROE) (%)	-31.4	1.9	-39.0	-36.5	39.0	36.1	20.4	-10.8	30.4	35.6	**13.8**
Return on equity (ROE) (excluding the impact of inventory valuation)	—	—	—	—	—	—	—	—	—	22.6	**10.7**
Return on invested capital (ROIC) (%) (excluding the impact of inventory valuation)	—	—	—	—	—	—	—	—	—	9.5	**6.1**

1 Impact of inventory valuation from FY2009 is based on the book value depreciation method as dictated by Accounting Standards Board of Japan (ASBJ) Statement No. 9, "Accounting Standard for Measurement of Inventories."
2 Up until FY2014, Net income (loss) figures are presented.
3 Depreciation and amortization includes cost recovery under production sharing. In FY2011 and FY2012, Depreciation and amortization includes recovery of recoverable accounts under production sharing as well as depreciation applicable to fixed assets idled as a result of the fire at the Chiba Refinery caused by the Great East Japan Earthquake.
4 Up until FY2014, Minority interests figures are presented.
5 Up until FY2012, Cash and deposits and Short-term investment securities are deducted from Interest-bearing debt, while from FY2013, Cash and deposits is deducted from Interest-bearing debt. In FY2015, however, Cash and deposits and Securities are deducted from Interest-bearing debt.
6 On October 1, 2015, Cosmo Energy Holdings Co., Ltd. was established as the wholly-owning parent company of Cosmo Oil Co., Ltd. through a share transfer. For each common share of the former Cosmo Oil, 0.1 common share of the holding company was allocated (for example 1,000 Cosmo Oil shares to 100 Cosmo Energy Holdings shares). Figures are rounded down to the nearest thousand shares.
7 Per share data from FY2015 constitutes data for one Cosmo Energy Holdings share when 0.1 holdings company share is allocated for each share of the former Cosmo Oil.
8 The ratio from FY2019 to FY2021 is calculated on the basis that 50% of the ¥30.0 billion hybrid loan executed on March 31, 2020 is included in equity.
9 The Renewable Energy Business, which had previously been included in Others, was defined as a separate segment in FY2020.

Share Information (as of March 31, 2023)

Ordinary general meeting of shareholders	Every June
Shareholder registrar	Sumitomo Mitsui Trust Bank, Limited
Number of common shares issued	88,353,761 shares
Record date for year-end dividend payment	March 31
Number of shares per trading unit	100 shares
Listed stock exchange	Prime Market, Tokyo Stock Exchange

Major shareholders (as of March 31, 2023)

(Thousands of shares, rounded down)

Name of shareholder	Number of shares held (thousands)	Shareholding ratio (%)
The Master Trust Bank of Japan, Ltd. (trust account)	11,419	12.92
CITY INDEX ELEVENTH Co., Ltd.	7,818	8.84
Reno, Inc.	6,007	6.79
Custody Bank of Japan, Ltd. (trust account)	5,900	6.67
Aya Nomura	3,825	4.33
GOLDMAN SACHS INTERNATIONAL	2,381	2.69
The Kansai Electric Power Co., Inc.	1,860	2.10
Cosmo Energy Holdings Client Stock Ownership	1,722	1.94
Mizuho Bank, Ltd.	1,600	1.81
Aioi Nissay Dowa Insurance Co., Ltd.	1,580	1.78

*Shareholding ratio is calculated by deducting the number of treasury shares from the total number of outstanding shares. Treasury shares do not include those shares owned by the designated trust bank through the Board Incentive Plan (BIP) Trust.

Corporate Data

Company name	Cosmo Energy Holdings Co., Ltd.	
Securities code	5021	
Head office	1-1-1, Shibaura, Minato-ku, Tokyo, Japan 105-8302	
Established	October 1, 2015	
Capital	¥40.0 billion	
Description of business	Management of subsidiaries involved in oil ranging from upstream to downstream and other businesses	
Corporate history	April 1, 1986	Cosmo Oil Co., Ltd. was established through the tripartite merger of Daikyo Oil Co., Ltd., Maruzen Oil Co., Ltd., and former Cosmo Oil (Cosmo Refining) Co., Ltd., a refining subsidiary of both companies
	October 1, 1989	Asian Oil Co., Ltd. was merged into Cosmo Oil
	October 1, 2015	Cosmo Energy Holdings Co., Ltd. was established
Main banks	Mizuho Bank, Ltd., MUFG Bank, Ltd., and Sumitomo Mitsui Banking Corporation	

Corporate Data

- Period covered

Fiscal year from April 1, 2022 to March 31, 2023
(including some information for FY2023)

- Report scope

Cosmo Energy Holdings Co., Ltd. and its major consolidated subsidiaries and affiliated companies, etc.
Core operating companies in this report refers to Cosmo Oil, Cosmo Oil Marketing, and Cosmo Energy Exploration & Production, while semi-core companies refers to Maruzen Petrochemical.

*The scope of coverage for this data is provided individually in appended notes.

- Publication date

Publication date: October 2023
Next report scheduled for publication in September 2024 (published every year)

- Editorial policy

In editing this report, we referred to the International Integrated Reporting Framework of the International Integrated Reporting Council (IIRC).

- Cosmo Report, IR website, and sustainability website

Cosmo Report (printed edition) is designed to be easily read, and further details are available on the Company's IR and sustainability websites.
Sustainability activity reporting focuses on priority issues with reference to the Global Reporting Initiative (GRI) Standards.
For further details, please refer to our corporate website.

IR website
https://www.cosmo-energy.co.jp/en/about/ir.html

Sustainability website
https://www.cosmo-energy.co.jp/en/actions/sustainability.html

- Third-party assurance report

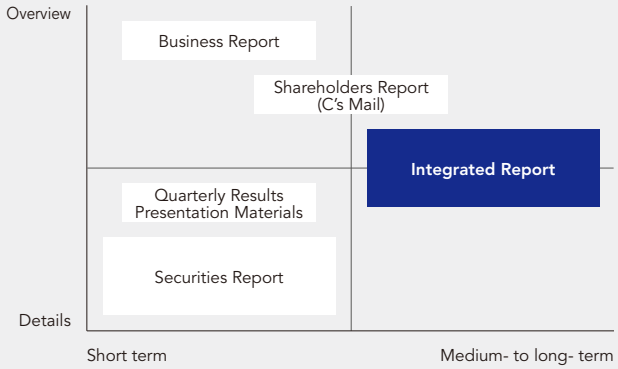
Please refer to our corporate website for the Independent Assurance Report.

https://www.cosmo-energy.co.jp/en/actions/sustainability.html

- Caution concerning forward-looking statements

This report contains forward-looking statements about our plans, strategies, and performance. These statements are based on judgements that were made in accordance with currently available information. Please note that our actual business results may differ materially from these initial forecasts due to various external factors.

- Information systems chart



*The size of each media indicates the amount of information.

These media are available on our corporate website via the following links.

Integrated Report
https://www.cosmo-energy.co.jp/en/about/ir/event/annual.html

Quarterly Results Presentation Materials
https://www.cosmo-energy.co.jp/en/about/ir/library.html

Business Report
https://www.cosmo-energy.co.jp/en/about/ir/meeting.html



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