

# COSMO REPORT 2024

### COSMO ENERGY HOLDINGS

COSMO REPORT 2024

AAAAA

Foundation

Data

### Sustainable Management at the Cosmo Energy Group

The Cosmo Energy Group Management Vision 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.

We have strived to realize our Group Management Vision by aiming to achieve sustainable growth within the Group and helping realize a sustainable society through our businesses.

To realize our Group Management Vision, it is important that the Group as a whole shares the same values and acts accordingly.

For this reason, the Cosmo Energy Group Code of Conduct, which translates our Group Management Vision into concrete action, is the cornerstone of our sustainability and serves as the foundation for the actions and values of all employees.





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

### Materials Issues, Vision 2030 and the Seventh Consolidated Medium-Term Management Plan

In the Seventh Consolidated Medium-Term Management Plan, which ends in FY2025, the Cosmo Energy Group defined human resource transformation (HRX), digital transformation (DX), and green transformation (GX) as the three themes for transforming our management foundation. These themes are also linked to the long-term material issues we aim to solve by 2050, and by addressing them, we will realize our vision for the future as defined in Vision 2030 and enhance enterprise value.



Data

### COSMO REPORT 2024

# CONTENTS

#### Mission

Sustainable Management at the Cosmo Energy Group •••••••••	1
Vision 2030 / Oil & New ~Next Stage~ · · · · · · · · · · · · · · · · · · ·	2
Message from the CEO	5
Initiatives to Enhance Enterprise Value ••••••••••••••••••	11

#### Strategy

History of Value Creation · · · · · · · · · · · · · · · · · · ·
Value Creation Model · · · · · · · · · · · · · · · · · · ·
The Seventh Consolidated      Medium-Term Management Plan
The Seventh MTMP KPIs at a Glance · · · · · · · · · · · · · · · · · · ·
Capital Policy
Management Discussion and Analysis · · · · · · · · · · · · · · · · · ·
Cosmo Energy Group Businesses · · · · · · · · · · · · · · · · ·
Business Overview · · · · · · · · · · · · · · · · · · ·
Petroleum Business · · · · · · · · · · · · · · · · · ·
Petrochemical Business · · · · · · · · · · · · · · · · · ·
Oil Exploration and Production Business · · · · · · · · · · · · · · · · · ·
Renewable Energy Business · · · · · · · · · · · · · · · · · ·

### Foundation

Special Interview: Human Resource Transformation
at the Cosmo Energy Group · · · · · · · · · · · · · · · · · · ·
Message from the Executive Officer in Charge of
Sustainability · · · · · · · · · · · · · · · · · · ·
Initiatives to Promote Sustainability (Sustainability Governance) $\cdots$ 50
Material Issues of the Cosmo Energy Group · · · · · · · · · · · · · · 51
KPIs and Results for Material Issues in the Seventh Consolidated
Medium-Term Management Plan · · · · · · · · · · · · · · · · · · ·
Climate Change Countermeasures · · · · · · · · · · · · · · · · · · ·
Provision of Clean Energy, Products, and Services $\cdots \cdots \cdots \cdots 57$
Promoting Human Resources' Success, Health, and Job Satisfaction $~\cdot\cdot\cdot$ 59
Human Rights · · · · · · · · · · · · · · · · · · ·
Commitment to Compliance and Sharing of Philosophy and Values $\cdots$ 66
Strengthening Group Risk Management · · · · · · · · · · · · · · · · · · ·
Digital Transformation (DX) · · · · · · · · · · · · · · · · · · ·
Safe Operations and Stable Supply · · · · · · · · · · · · · · · · · · ·
Biodiversity Initiatives · · · · · · · · · · · · · · · · · · ·
Message from the Chairperson of the Board of Directors $\cdot\cdot73$
Overview of Corporate Governance · · · · · · · · · · · · · · · · · · ·
Board of Directors · · · · · · · · · · · · · · · · · · ·
Message from the Chairperson, Nomination and Remuneration Committee
Nomination and Remuneration Committee · · · · · · · · · · · · · · · · · ·
Executive Remuneration Plan · · · · · · · · · · · · · · · · · · ·
Directors and Executive Officers •••••••81
Skills Matrix · · · · · · · · 83

#### Data

Eleven-Year Selected Financial and Operating Data · · · · · · · · 84
Share Information and Corporate Data · · · · · · · · · · · · · · · · · ·

# Message from the CEO

Oil & New ~Next Stage~ Toward the realization of enhanced enterprise value

> Shigeru Yamada Representative Director, Group CEO

### Looking back on FY2023

### Reflecting on my first year as CEO

A year has passed since we formed our new management team. Although we have achieved some of the things I envisioned before assuming the role of Group CEO, new challenges have also become apparent. Overall, I feel that FY2023 was a year in which we were able to make positive steps toward enhancing enterprise value.

The external environment continues to see heightened geopolitical risks due to various conflicts such as the situations in Ukraine, Israel, and Palestine, and the continued tension in the Taiwan Strait. For Japan, which relies on imports for almost 90% of its primary energy, the importance of energy security, including supply chain diversification, continues to increase.

Furthermore, recent years have seen frequent large-scale natural disasters such as earthquakes, and I feel that this past year has brought a renewed awareness of the importance of petroleum products, which are easy to transport, store, and use. While we are of course committed to reducing

operations through CCS/CCUS

greenhouse gas (GHG) emissions, at the same time the year was also a reminder of our company's mission to offer a stable supply of petroleum products.

Along with expanding New fields as "energy that shapes the future," set forth in Vision 2030, we will undertake thorough efforts in *Oil* fields, which currently constitute "energy that sustains society." I believe it is crucial that we strike a balance between Oil and New going forward.

### **Progress on the Seventh Consolidated Medium-Term Management Plan**

#### Vision 2030

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



supply chain

supply-demand adjustment, and sales



In terms of our Group's business performance in the first year of the Seventh Consolidated Medium-Term Management Plan (hereafter, "the Seventh MTMP"), we were able to achieve a certain degree of success thanks to the concerted efforts of all employees, in addition to enjoying a relatively favorable business environment. The theme of the Seventh MTMP is the sustainable enhancement of enterprise value, and I perceive this as a sound step forward.

In particular, in Oil fields, it was a year in which we successfully strengthened our profitability, developed during the Sixth Consolidated Medium-Term Management Plan; despite a few unplanned stoppages at refineries, we were able to demonstrate our presence and strengths. However, New fields mainly entails slightly longer-term projects, and there are some aspects in which we have yet to realize concrete results. Nevertheless, it is necessary to continue challenging ourselves, without fear of failure. Going forward, I am committed to leading these efforts.

Mission



#### Initiatives in Oil fields

To secure profitability in Oil fields, we implemented initiatives to realize high uptime and high-efficiency operations at refineries. After all, the foundation of our profitability is safe, stable operations.

Our company is strengthening its Operations Management System (OMS)<sup>1</sup>, a company-wide management system that we have been using since 2016. The OMS does not produce results overnight, so we must repeatedly improve and test it. It has already been almost 10 years since we introduced the system, and I am confident that raising the safety awareness of each person working in the refineries and not overlooking even the slightest detail will foster a commitment to safety that will eventually become ingrained in our corporate culture. Without faltering, we will continue this effort to take our corporate culture of safety, which we have built until now, to an even higher level.

In addition, as part of our digital transformation (DX)

initiatives launched in FY2023, we began operating an Asset Performance Management (APM) System<sup>2</sup> and are undertaking an initiative to build digital twins<sup>3</sup>. We aim to reduce unplanned stoppages by consolidating data on refinery facilities and equipment in the APM System and predicting failures before they occur. Moreover, we can create virtual versions of the refineries and combine them with AI simulations to further widen our efforts to reduce the risk of trouble.

The energy industry is undergoing a period of transformation as it works toward net zero carbon emissions in 2050. To ensure a stable energy supply, which is our company's mission, we will pursue even safer and more stable operations by integrating DX initiatives into our corporate culture of safety.

1 Operations Management System (OMS): The Cosmo Oil Group's refinery division has established a policy consisting of 25 requirements as critical items indispensable for achieving safe operations and stable supply. Based on this policy, the head office and refineries are strengthening their respective initiatives and cooperation through the OMS. For further information on our OMS initiative, please refer to Page 71

2 Asset Performance Management (APM) System: The system incorporates the global standard for maintenance and equipment reliability work processes and can efficiently and effectively manage big data on maintenance as well as improve comprehensiveness, predictability, and manageability. For further information on our APM System, please refer to (Page 36)

3 Digital twin: A digital representation of an actual refinery, from which necessary information about refinery facilities and equipment (operating data, repair history, equipment specifications, etc.) can be immediately accessed. For further information on our digital twin initiative, please refer to (Pages 18-19).

### Initiatives in New fields

With an eye toward growth, we are expanding New fields by undertaking initiatives to establish a green electricity supply chain profit foundation and mass-produce Japan's first locallymade SAF.

Our green electricity supply chain consists of three

business areas: renewable energy generation, supply-demand adjustment and storage, and green electricity sales.

In renewable energy generation, our onshore wind power business began operations of Kamiyuchi Wind Farm (Hokkaido) and Oita Wind Farm (Oita Prefecture) in 2023 and is making steady progress. As for offshore wind power, although the business environment is becoming more challenging for reasons such as the increasing number of competitors and rising costs, expectations for large-scale sources of green electricity are growing given the global trend toward decarbonization, and our company is preparing for future rounds of bidding after first ensuring sound profitability.

In terms of supply-demand adjustment and storage, in FY2023 we began validating our power storage business at the Research & Development Center and directly-managed service stations. In FY2025, we also plan to begin validation at our Yokkaichi Kasumi Power Plant. Based on the validation results, we will consider acquiring storage battery operation know-how and engaging in new electricity market transactions.

In terms of green electricity sales, more than 3,000 facilities have introduced Cosmo Denki (Electricity) Business Green as of October 2024. The share of green electricity to total electricity sales reached 50% as of the end of FY2023, and is steadily increasing. Going forward, we will continue to focus on growing green electricity sales.

Aiming to mass produce Japan's first locally-made SAF, in May 2023 we began construction of a facility<sup>4</sup> to produce SAF from used cooking oil as feedstock at Cosmo Oil's Sakai Refinery. Steady progress is being made toward completion and commencement of operations in FY2024.

Regarding feedstock procurement, an important element in business development, we are working with a wide range

Mission

of industries, including restaurant chains, department stores, airport management companies, and railroad operators, through SAFFAIRE SKY ENERGY LLC, which we jointly established with JGC Holdings Corporation and Revo International Inc.

4 New Energy and Industrial Technology Development Organization (NEDO)subsidized project: "Establishment of a supply chain model for SAF production from domestic used cooking oil."

### Capital and business alliance with Iwatani Corporation

In April 2024, our company entered into a capital and business alliance with Iwatani Corporation.



Having maintained a strong business relationship in the trade of LPG and petroleum products for many years, in 2022 we concluded a basic agreement concerning possible collaboration in the hydrogen business. We have been considering partnering in three areas: hydrogen stations, the engineering field, and supply chain construction.

This new capital and business alliance is based on our belief that deepening collaboration toward carbon neutrality by 2050 will lead to the creation of new synergies and, consequently, enhance enterprise value. Currently, we have established an alliance promotion committee, chaired by the representative directors of both companies, and are accelerating initiatives to realize a decarbonized society, including collaboration in the hydrogen field, in addition to strengthening our relationship in existing business fields.

As for ongoing initiatives, in 2023 we established a joint venture for the hydrogen station business, with the first station opening in April 2024. We were also selected to operate two other hydrogen stations at sites owned by the Tokyo Metropolitan Government, and we plan to open our second and third hydrogen stations in 2025 and thereafter. We will continue to expand the hydrogen station business, which is expected to contribute to the reduction of  $CO_2$  emissions in the transportation sector.

In addition, in 2023 we established a joint venture for our hydrogen engineering business. As our refineries handle hydrogen produced in the petroleum refining process, our Group possesses engineering technologies and capabilities related to hydrogen facilities and equipment, and we aim to expand profits by matching lwatani Corporation's know-how in the hydrogen field with users' needs.

### Progress of our capital policy

As we aim to maximize enterprise value, I believe it is important to expand, in a well-balanced manner, our three-pronged capital policy set forth in the Seventh MTMP: namely, shareholder returns, financial health, and capital efficiency. In particular, it is vital to optimize capital efficiency and financial health by improving profitability so that there is no trade-off between the two.

In FY2023, as a result of implementing our three-pronged capital policy against a backdrop of solid business performance, particularly in the Petroleum Business, our main revenue driver, we were able to achieve the targets defined in the Seventh MTMP in all three areas: shareholder returns, financial health, and capital efficiency.

For shareholder returns, we increased the dividend twice during the period, as well as raised the minimum dividend for the Seventh MTMP period in light of strong profit levels. Alongside dividends, we also achieved a single-year total payout ratio of 60% to shareholders in FY2023 by buying back our own shares.



In terms of capital efficiency, despite unplanned stoppages at refineries, ROE far exceeded our 10% target thanks to initiatives carried out since the Sixth MTMP period to strengthen our profitability.

Regarding financial health, we have achieved our net debt-to-equity ratio and net worth targets from the first year of the Seventh MTMP by improving profitability.



### Management foundation transformation

## Initiatives to drive human resource, digital, and green transformations

Under the Seventh MTMP, we are implementing human resource, digital, and green transformation initiatives to transform our management foundation, which supports our business strategies.

Our human resource transformation (HRX) efforts are centered around a people strategy that motivates employees and harnesses their skills, and we are undertaking initiatives to integrate management and human resource strategies to lead the company and its employees to growth. In FY2023, we made steady progress in this regard by achieving an engagement index of 60 points or higher, which we defined as a KPI, and making a human resource development investment of ¥130,000 per person.

Additionally, the growth of each employee is equally as important as achieving our KPIs. I believe that it is difficult to sustainably enhance enterprise value if individual employees do not grow, even if the company's performance improves. For this reason, it is essential that employees have the autonomy and take the initiative to pursue self-driven growth. Therefore, by providing an environment that is easy to work in and enhancing the range of employee' upskilling programs, we aim to create a virtuous cycle in which the working environment transforms employees' mindsets and behaviors.

In the area of digital transformation (DX), we are working to establish infrastructure to promote data utilization and develop human resources with digital skills. We have set a KPI of developing 900 core digital personnel by FY2025, and I feel confident that we are on track to achieve this, as we exceeded one-third of our target in FY2023, the first year.

Aiming to enhance DX literacy through training, we have also established a system to gather not only top-down but also bottom-up latent ideas from the frontlines and realize them through DX events such as Cosmo's DX Hub<sup>5</sup>. One such example is the digital twin initiative at refineries, which I mentioned as an *Oil* fields initiative.

Finally, regarding green transformation (GX), our unwavering goal is to realize our roadmap to achieve net zero carbon emissions in 2050. In 2030, a particularly significant year, we plan to reduce GHG emissions by 30% compared to FY2013 levels. As of 2023, we are making steady progress toward achieving our plan, although the numbers may not look significant on paper.

In terms of specific initiatives in FY2023, in addition to announcing our participation in the GX League, we began exploring ways to collaborate with electric power companies, shipping companies, and others to create a CCS<sup>6</sup> value chain. We also began joint studies with multiple companies that have promising technologies to make effective use of captured CO<sub>2</sub>. In these ways, we are making steady progress on our initiatives aimed at reducing future CO<sub>2</sub> emissions.

5 Cosmo's DX Hub: For further information, please refer to Page 70. 6 CCS (Carbon dioxide Capture and Storage)

#### Mission

### A message to all our stakeholders

### Strengthening corporate governance

The theme of our Seventh MTMP is enhancing enterprise value. In order to achieve this, it is important that the Board of Directors is able to determine the Company's major direction and fulfill its supervisory function in business execution. I believe the outside perspective needed for the board, as well as diversity in gender, skills, and experience must be considered in terms of the board's ability to fulfill its role. In addition, as the business environment becomes increasingly complex, advisory functions are also required along with traditional monitoring functions.

Our company's board has strengthened the transparency and diversity necessary for the sustainable enhancement of enterprise value, with independent outside directors accounting for half of all directors and one-third of directors being women. Additionally, I believe that new directors with extensive experience in corporate management will also strengthen the board's advisory function. As outside directors have commented, the atmosphere of our company's board makes it very easy to speak up, with the board engaging in free and open discussions. Moreover, we provide outside directors with opportunities to visit our facilities and take part in study sessions where possible, and also value free discussions on such occasions. Thanks to these initiatives, we have received a variety of questions and opinions from outside directors during preliminary briefings of board meeting agendas, and I feel that the effectiveness of board meetings has improved.

### Renewed determination to enhance enterprise value

Our company's stock price has risen significantly over the past year, allowing our price book-value ratio (P/B ratio) to exceed 1.0 times for the first time in six years, since 2017.

P/B ratio is said to be ROE x P/E ratio (price-earnings ratio), and we see the improvement in profitability of the entire group and the implementation of our capital policy as the reason behind our high ROE. Meanwhile, we recognize that there is room to raise our P/E ratio a bit further. For our shareholders and investors, I feel we have not yet fully communicated the future potential of *New* fields. This is a pillar of future growth that will include some long-term projects. With this point in mind, I consider it necessary for me, as Group CEO, to proactively convey our message of growth in *New* Fields while we continue to steadily generate results. Although we have been focusing on dialogue with capital markets, we will enhance our engagement with shareholders and investors, so they gain a better understanding of our initiatives in *New* fields.

Also, though our P/B ratio has exceeded 1.0 times, this is not the goal from the perspective of enhancing enterprise value; rather, we recognize that we have finally reached the starting point. To sustainably enhance enterprise value, it is necessary not only to achieve our financial management goals but also to have all stakeholders, including shareholders, investors, customers, local citizens, employees, business partners, financial institutions, and government agencies, view the Cosmo Energy Group as a strong and reputable organization. Considering this, I am proud that we have made a step forward in the first year of the Seventh MTMP, including from a financial perspective.

From FY2024 onwards, we will continue to make every effort to enhance our enterprise value by steadily advancing step-by-step toward achieving the Seventh MTMP and, beyond that, realizing Vision 2030. The energy industry is going through a period of major transformation, and I hope that you will join us as we go beyond a mere extension of the past and look forward to a new era of growth for the Cosmo Energy Group.



### Initiatives to Enhance Enterprise Value

Trend in P/B ratio, net worth, and market capitalization

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 up to a certain level through the diligent execution of various initiatives during the period of the Sixth MTMP (FY2018-2022).

In FY2022, we announced a shareholder return policy that explicitly emphasized significant strengthening of shareholder returns, and in March 2023, we newly unveiled the

Seventh MTMP, which includes our capital policy.

As a result of realizing our three-pronged capital policy, which encompasses shareholder returns, financial health, and capital efficiency, based on solid earnings, stock prices rose significantly during FY2023, resulting in our price book-value ratio exceeding 1.0 times.

Even though our price book-value ratio was more than 1.0 times, we consider this the starting line, and will work to implement each of the initiatives outlined in the Seventh MTMP as we seek to further enhance enterprise value.









#### COSMO REPORT 2024

# Strategy

History of Value Creation 13
Value Creation Model 14
The Seventh Consolidated Medium-TermManagement Plan16
Oil Business Structural Improvement · · · · · · · · · · · 18
New Field Profit Expansion 21
Realizing Our Three-Pronged Capital Policy · · · · · · · 25
Management Foundation Transformation ••••••• 26
The Seventh MTMP KPIs at a Glance · · · · · · · · · · · 27
Capital Policy 28
Management Discussion and Analysis 31
Cosmo Energy Group Businesses 33
Business Overview · · · · · · · · · · · · · · · · · · ·
Petroleum Business · · · · · · · · · · · · · · · · · ·
Petrochemical Business 37
Oil Exploration and Production Business · · · · · · · · · · · · 39
Renewable Energy Business •••••••••••••••••••••••••••••••41



### History of Value Creation

Thirty-eight 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.

Common to all businesses
 Related to the Petroleum Business
 Related to the Coll E&P Business
 Related to the Petrochemical Business

1933-1985		1986-2006		2007-2014
Prologue to Cosmo Oil	Birth of a new Cosmo Oil	toward a new development stage	Prospect	ts for a new growth track
Daikyo Oil and Maruzen Oil started operation	Became unwaveringly compe	titive despite rough waves of liberalization	Damage and reconstr	uction from the Great East Japan Earthquake
Corporate origin				
1933 Maruzen Oil established	1986 Cosmo Oil established			
1939 Daikyo Oil established 1984 Cosmo Oil (Refining) established	1989 Asian Oil merged into Cosmo Oil form a four-refinery organization	to	2007 Business alliance formed with (currently MIC Co., Ltd.)	IPIC Co., Ltd. 2011 Construction of mixed-xylene distillation unit completed at the Yokkaichi Refinery
1933 Maruzen Oil established 1968 Construction of Sakai Refine	1986 Cosmo Oil established through the tripartite merger of Daikyo Oil, Maruzer Oil, and former Cosmo Oil (Refining)	1997 "Filling up your hearts, too" adopted as brand statement	2007 Japanese language education in the UAE	program launched 2012 Abu Dhabi Oil's new concession agreement came into effect
1939 Daikyo Oil established	1986 Abu Dhabi Office opened	1997 IPP business entered	2008 Full-scale entrance made into business and Hyundai Cosmo	the petrochemical 2012 Operation resumed at the Chiba Refinery's Petrochemical No. 2 Crude Distillation Unit (CDU)
1943         Construction of Yokkaichi Refinery completed         1972         Construction of Sakaide	1986 Cosmo service stations completely redesigned	1999 Business alliance formed with Nisseki Mitsubishi Co. Ltd. (currently ENEOS Corporation)	established 2010 Eco Power shares acquired and	d full-scale entrance
1944 Construction of Matsuyama	1989 Asian Oil merged into Cosmo Oil to	2000 Newly entered LNG business	made into the wind power ger	2013 Commercial operation of new paraxylene
1963 Construction of Chiba	form a four-refinery organization	2004 Wind power generation started in Sakata City	2010 Delayed coker unit started op Sakai Refinery	peration at the production unit started at Hyundai Cosmo Petrochemical
Refinery completed	1997 Qatar offshore concession area acquired and Qatar Petroleum Development established	d Full-scale entrance made into the mixed- xylene business and CM Aroma established	2010 Auto leasing business Cosmo V	ehicle Lease* started 2014 Strategic comprehensive alliance entered into with CEPSA
		2006 Construction of delayed coker unit started	2011 Fire and explosion accident o Refinery due to the Great Eas	ccurred at the Chiba t Japan Earthquake *Currently, Cosmo My Car Lease
Yokkaichi Refinery Chiba Refinery	Sakai Refinery "Filling up your corporate logo	hearts, too"	Offshore oil collection base for oil Maru development	uzen Petrochemical's Chiba Plant Wind power generation: Iwata Wind Farm
<b>New jou</b> Striving to grow based on the Group's es	2015-2022 urney as the Cosmo Energy Group stablished management foundation and contrib	buting to a sustainable society	Toward su Accelerati	2023- Istainable enterprise value enhancement ng change toward the future, aiming to evolve into a corporate group that is chosen by society
2015 Cosmo Energy Holdings established				
2015         Business alliance entered into with Showa Shell (currently Idemitsu Kosan) in the Yokkaichi area         2019         Supply circle	of fuel oil to Kygnus Sekiyu K.K. commenced	2021 Cosmo Zero Carbon Solution, a pac includes renewable energy and EVs	kage of products that , launched	2023 Commercial operation of offshore wind farms at Akita Port and Noshiro Port in Akita Prefecture commenced
2015 Cosmo Energy Holdings established 2019 ECO Pow renamed	ed Cosmo Eco Power	2021 MoU concerning possible collaborat	tion in the field of decarbonization	2024 Entered into capital and business alliance agreement with lwatani Corroration
2016 Maruzen Petrochemical became a consolidated 2020 Cosmo I subsidiary Financia	Energy Holdings declared its support for the nendations of the Task Force on Climate-related al Disclosures (TCED)	2021 Basic agreement concerning possib business concluded with Iwatani Co	le collaboration in the hydrogen rporation	
2017 Production started at the Hail Oil Field	re Block 4 in the Emirate of Abu Dhabi acquired	2022 Roadmap for Achieving Net Zero C	' arbon by 2050 was disclosed	
2018         Fuel conversion work at the Yokkaichi Kasumi           Power Plant completed         2021           Decision         Decision	n made to use electricity from virtually 100% renewable sources at all service stations directly operated by the	Joint studies on locally-made SAF p Alcohol-to-Jet (ATJ) technology con	roduction technology utilizing nmenced with Mitsui & Co., Ltd.	
2018     Sales of Cosmo Denki (Electricity) commenced     Cosmo I       2018     Fiftieth anniversary of Abu Dhabi Oil celebrated	Energy Group	2022 SAFFAIRE SKY ENERGY LLC establ Japan's first large-scale production	ished in preparation for of locally-made SAF	
				SAF production facility Iwatani Cosmo Hydrogen Station (under construction) Heiwajima

### 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.



Foundation

Data

### VALUE CREATION MODEL

### Resources and Enterprise Value to Sustain Value Creation

Managemen	Enterprise value	
Manufacturing capital	Financial capital	Economic value
Crude oil production     Approx. <b>37,000</b> barrels per day     (comparison with crude oil     (comparison with crude oil	Total assets     Y2,212.6 billion     Vet assets     Y727.4 billion	(FY2025 target under the Seventh MTMP)
Crude oil processing capacity 400,000 barrels per day     Refinery operating rate (CD basis <sup>1</sup> ) 87.9%	Net worth     Free cash flow     Y27.4 billion     ¥601.2 billion     ¥145.1 billion	Profitability Profit attributable to owners of parent
Refinery operating rate (SD basis <sup>2</sup> )     94.8%	Natural capital	≥¥60.0 bil.
<ul> <li>Operations Management System (OMS) as a foundation for safe operations and stable supply</li> </ul>	<ul> <li>Crude oil reserves 155 million barrels (equivalent to approx. 19 years' worth of supply)</li> <li>Wind, sunlight, and other natural energy sources</li> </ul>	potential ¥140.0 bil. (three-year cumulative total)
<ul> <li>Number of service stations 2,602</li> <li>Petrochemical production capacity</li> </ul>	Intellectual capital	Total payout ratio Shareholder ≥60% returns Dividend >¥300 per share
Olefins Ethylene <sup>3</sup> 1.29 million tons per year     Aromatics Para-xylene     Benzene     735,000 tons per year	<ul> <li>Intellectual property rights         <ul> <li>Number of patents held</li> <li>(Japan: 608, Overseas: 424)</li> </ul> </li> <li>Number of trademark rights held         <ul> <li>(Japan: 353, Overseas: 125)</li> </ul> </li> </ul>	Capital ≥6% efficiency ROE
Mixed-xylene 618,000 tons per year • Wind power plant capacity <sup>4</sup> 310 <sub>MW</sub> (No. 3 in Japan/approx. 6% domestic share)	Brand     Company recognition rate     95% <sup>5</sup> S Based on a nationwide survey of 2,000 men and women aged 16-69 years     by an external research agency (as of August 2023)	Financial health Net D/E ratio <b>1.0</b> times (Net worth ≥¥600.0 bil.)
<ol> <li>CD basis (Calendar Day basis): The operating rate of the Company (total for three refineries).</li> <li>SD basis (Streaming Day basis): The operating rate of the Company (total for three refineries) excluding the impact of regular maintenance, etc.</li> <li>Includes the production capacity of Keiyo Ethylene (a consolidated subsidiary in which Maruzen Petrochemical has a 55% stake)</li> </ol>	Social and relationship capital           • Number of Cosmo The Card holders         3.62 million	Social value
4 As of December 31, 2023 Human capital	Cumulative number of Cosmo My Car Lease contracts     Number of Carlife Square 7.26 million	Stable energy supply
Number of employees (consolidated)     6,530 people	app downloads <ul> <li>Friendly relationship with         oil-producing countries</li> <li>Over 50 years</li> </ul>	Contribution to a decarbonized society
Average number of temporary workers 3,686 people	*Unless otherwise specified, figures are actual results for FY2023 or as of March 31, 2024.	

Foundation

### 2050 Net Zero Carbon Emissions

### The Seventh Consolidated Medium-Term Management Plan (FY2023-2025)

The Seventh MTMP was formulated by backcasting from our vision for the future, Vision 2030. Leveraging our significantly strengthened profitability from the Sixth MTMP, we aim to enhance enterprise value under the Seventh MTMP.



The Seventh Consolidated Medium-Term Management Plan

The Seventh Consolidated Medium-Term Management Plan





agement foundation transformation HR/Digital/Green



Green Ener

**Bolster green** 

chain

electricity supply

Build a high value-added supply chain

that encompasses power generation,

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



generation energy Supply SAF and develop hydrogen and other energy businesses

Expand next-

Next-Genera

nergy



Strengthen competitiveness of *Oil* Business and pursue low carbonization

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

Profitability	Investment
Ordinary profit <b>¥200.0-250.0 bil</b> . Profit attributable to owners of parent <b>¥90.0-120.0 bil</b> .	New fields ¥400.0 bil. (2023-2030 eight-year cumulative) ¥600.0 bil. strategic investment incl. in New fields
· · · · · · · · · · · · · · · · · · ·	
Capital efficiency	Climate change countermeasures

Data

### The Seventh Consolidated Medium-Term Management Plan (FY2023-2025)

In FY2023, we were able to take a steady step forward toward enhancing our enterprise value.

From FY2024 onwards, we will continue to advance step-by-step toward achieving the Seventh MTMP and realizing Vision 2030 beyond that by dedicating our full efforts to enhancing enterprise value.



2 MoU (Memorandum of Understanding): Basic agreement

Super Nintei/A-Certification in the Safe Operations and Stable Supply section on (Page 71).

Data

Oil Business Structural Improvement

### Petroleum Refining Business: Maximizing uptime

### Ongoing efforts for safe operations and stable supply

Following the LPG tank explosion at the Chiba Refinery caused by the Great East Japan Earthquake in March 2011, the Cosmo Energy Group reevaluated our approach to *safe operations and stable supply* and continues to promote ongoing improvements even now. After formulating measures to prevent recurrence in August 2011, we carried out a large-scale renewal of aging facilities and equipment from 2013 to 2017. We also introduced the Operations Management System (OMS) in 2016, advancing initiatives on both the infrastructure and systemic fronts. Since 2017, we have been improving our safety capabilities by introducing advanced technologies, such as drone surveillance. Currently, we are undertaking various initiatives under two main pillars: strengthening DX and an advanced voluntary safety system.



### Long-term roadmap for digitizing refineries

We are working to digitize our refineries to achieve even higher uptime and operational efficiency. One such inititative is the Plant Digital Twin, which replicates refineries in a virtual space. Up until the Sixth MTMP period, we developed data utilization platforms in three areas: Construction, Operations, and Maintenance. Under the Seventh MTMP, we will integrate these data utilization platforms and make decisions using centralized data. In the future, we aim to achieve advanced operations utilizing AI.

#### Long-term roadmap for digitizing refineries



Oil Business Structural Improvement

### Petroleum Refining Business: Maximizing uptime

### Benefits of digitizing refineries

Based on AI simulations, humans can focus on high-level, non-routine decision-making. In addition, we can consolidate various functions by integrating refineries in the digital space and linking various types of data. These initiatives will improve operating rates, reduce the risk of trouble, increase employee safety, and facilitate work-style reforms.



### Initiative schedule during the Seventh MTMP period

During the Seventh MTMP period, in addition to ongoing initiatives such as strengthening our OMS, etc., we aim to further improve safe operations and stable supply levels by advancing DX initiatives and obtaining certifications for our refineries. We began operating the APM<sup>1</sup> System to facilitate the integrated management and advancement of our maintenance strategies in major refining units at all of our refineries in FY2023 and are expanding its application to other units in FY2024. Regarding the Digital Twin initiative, we started equipping our refineries with virtual reality (VR) from FY2023 and plan to complete its introduction at the Yokkaichi and Sakai refineries in FY2024, and the Chiba Refinery in FY2025. In terms of building data integration platforms, we proceeded with introducing them in FY2023 and began operations in May 2024. Furthermore, in addition to the Super Nintei Jigyosha<sup>2</sup> certification already obtained by the Chiba and Yokkaichi refineries, the Sakai Refinery finally gained A-Certification<sup>3</sup> in August 2024 as part of efforts to build an advanced voluntary safety system.

For further information on the Asset Performance Management (APM) System, please refer to Page 36.
 Tokutei Nintei Jigyosha
 Special Accredited Advanced Safety Inspector certification

#### Initiative schedule during the Seventh MTMP period



#### Oil Business Structural Improvement

### Petroleum Refining Business: Maximizing uptime

### Initiatives under the Seventh MTMP

#### Visualization

Equipment and other information are registered in a 3D viewer based on 360° panoramic photographs. This creates an environment where information from the field can be obtained from anywhere, enabling plans to be drafted from remote locations.

#### Building of data integration platforms

We have introduced data integration platforms that link various data to improve simulation accuracy and enable automatic analysis utilizing generative AI. With the introduction of generative AI, we expect it to contribute to data integration and the consolidation of functions.

\*For further information on our data integration platform initiatives, please refer to (Page 36).

### Inspection support utilizing drones and robots

#### **Drone utilization**

Starting in 2021, we conducted joint demonstration experiments with SENSYN ROBOTICS, Inc., at the Chiba Refinery toward implementation of a drone surveillance system. The experiments included: (1) inspection of outdoor oil tanks (including those with floating roofs) simulating

disaster inspections and patrol inspections, (2) visual inspections of the inside of chimneys utilizing small drones, and (3) pier inspections utilizing underwater drones. Currently, we routinely make use of drone surveillance systems for inspection work at our three domestic refineries.



#### **Robot utilization**

With future plant inspection and maintenance alternatives in mind, we have been undertaking

demonstration experiments using four-legged walking robots at the Yokkaichi Refinery in collaboration with the YOKOGAWA Group since 2023. We have confirmed practical usage conditions by verifying the walking performance of four-legged walking robots in idle plants, identifying challenges for their onsite utilization, and selecting verification items.



### Establishing an advanced voluntary safety system

At the Cosmo Energy Group, the Chiba Refinery was certified as a Tokutei Nintei Jigyosha (commonly known as Super Nintei Jigyosha) in April 2021, followed by the Yokkaichi Refinery in August 2022. In August 2024, the Sakai Refinery became Japan's first Special Accredited Advanced Safety Inspector (commonly known as A-Certification). This allows our three refineries to set continuous operation periods and testing methods based on risk, enabling more risk-based, efficient business operations. Moving forward, we will continue to work toward improving our advanced voluntary safety system at all our refineries.

\*For further information on "Super Nintei Jigyosha" certification and "A-Certification," please refer to Super Nintei/ A-Certification in the Safe Operations and Stable Supply section on (Page 71).

### Trend in refinery operating rates

In addition to our cumulative safety initiatives to date, we took up a short position strategy by establishing a system for supplying Kygnus Sekiyu starting in 2019. As a result, the Group's refinery crude distillation unit (CDU) operating rate has consistently exceeded the industry average since FY2019.

Going forward, we will continue to work on strengthening DX and our advanced voluntary safety system to maintain and improve safe operations and stable supply, which form the Group's profit foundation.

#### Trend in refinery operating rates



Cosmo's Efforts to Digitize Refineries

https://www.youtube.com/watch?v=WdV8p7GITMA (available in Japanese only)

- ے GE Vernova APM Implementation Towards Improving Asset Reliability for Cosmo Oil Refineries.
- GE Vernova APM Implementation Iowards Improv https://www.youtube.com/watch?v=tECw9UKMvPY



Visualization tool (INTEGNANCE VR)

Example of using multiple data types

Data Fusion)

with data integration platforms (Cognite

New Field Profit Expansion

### **Commencement of SAF production**

### Mass production of Japan's first locally-made SAF

In the aviation industry, where demand is expected to increase over the long term, addressing global warming through  $CO_2$  emissions reduction has become a pressing issue. The adoption of SAF is positioned as a crucial countermeasure in tackling this challenge.

The Cosmo Energy Group fulfills its social mission of continuing to provide a safe and stable supply of energy indispensable to daily life. To contribute to domestic and international CO<sub>2</sub> emissions reduction goals, we have set a target of supplying 300,000 kiloliters of SAF annually by 2030.

Aiming to start supplying locally-made SAF produced from used cooking oil in 2025, we will accelerate our efforts to establish a domestic SAF supply chain for the large-scale production of SAF, the first of its kind in Japan.

#### Supply chain for producing SAF from used cooking oil



### The Seventh Consolidated Medium-Term Management Plan and Vision 2030 Targets

FY2025	FY2030
30,000KL annually Ordinary profit ¥1.0 bil.	300,000KL annually

### **Group** initiatives

August O -> Adopted as a New Energy and Industrial Technology Development Organization (NEDO) project aimed at establishing a supply chain model for biojet fuel production from locally-sourced used cooking oil



• Set a 2030 supply target for Sustainable Aviation Fuel (SAF) • Initiated joint studies with Mitsui & Co., Ltd. on the domestic SAF production business utilizing Alcohol-to-Jet (ATJ) technoloav

July 2022

November

2022

May 2023 Ó

August

December

2023

2023 O

June

2024

2021

Established a joint venture, SAFFAIRE SKY ENERGY LLC, with JGC Holdings Corporation and REVO International Inc. to achieve large-scale domestic production of SAF from used cooking oil

Manufacturing: Conducted the groundbreaking ceremony for Japan's first large-scale production demonstration facility for locally-made SAF derived from used cooking oil. At the Sakai Refinery, domestic used cooking oil will be used as the main raw material to produce approximately 30,000 kiloliters of SAF annually. The facility is expected to be completed and operational by the end of FY2024, with supply scheduled to begin in 2025.



Artist's impression of the large-scale production demonstration facility fo ocally-made SAF

Collection: A joint proposal for Japan's first large-scale production of locally-made SAF was adopted as part of the project to promote the collection of used cooking oil in Tokyo. Efforts are underway to collect household used cooking oil and to explore its feasibility for SAF production, accelerating initiatives toward the mass production of locally-made SAF.

Cosmo Oil and Bangchak Corporation signed a framework agreement for the import of SAF.

Collection: Kicked off a pilot initiative to collect used cooking oil at service stations for use in SAF production.



ooking oil collection box installed at service statio

Introduction video of the Sakai Refinery, which is building Japan's first large-scale production demonstration facility for locally-made SAF made from used cooking oil. https://api01-platform.stream.co.jp/apiservice/plt3/Mzc3Mg%3d%3d%23MzM0%23280%23168%230%233FE320DBC400%23OzEwOzEwOzEw%23 (available in Japanese only)

Foundation

Data

New Field Profit Expansion

# Increasing green electricity supply chain

### profit: Generating renewable energy

### Establishing a profit foundation for the green electricity supply chain

In response to the global shift toward decarbonization, demand for renewable energy is growing. The Cosmo Energy Group has long been expanding its Renewable Energy Business, centered on wind power generation. Looking ahead to 2030, we aim not only to continue our efforts in power generation but also to integrate the entire supply chain, including supplydemand adjustment, power storage, and sales, to maximize the value of green electricity.



### Renewable energy generation

In April 2023, the Kamiyuchi Wind Farm and Oita Wind Farm began operations, and the start dates for the Shin-Mutsu-Ogawara Wind Farm and Shin-Iwaya Wind Park replacement projects have been moved up to FY2024. Both generation capacity and electricity sales volume continue to grow, with a compound annual growth rate (CAGR) exceeding 5%.

Additionally, new projects at Hasaki (replacement) and Kitahiyama (new development) are progressing. By leveraging our strengths in terms of our fully integrated system that encompasses development through operations and maintenance, we are expanding our business to reach our target onshore wind power capacity of 900 megawatts by FY2030.

#### Wind power generation capacity

261

266

227

CAGR 5.4

300

295

247

(MW) 400

300

200 100

0





### The Seventh Consolidated Medium-Term Management Plan and Vision 2030 Targets

	FY2025	FY2030
Renewable energy generation capacity	390MW	2,000MW
Storage battery function	50MW	500MW
Electricity sales volume	1.0 bil. kWh	-
Green electricity sales volume	-	4.0 bil. kWh
Ordinary profit	¥8.0 bil.	¥40.0 bil.

New Field Profit Expansion

## Increasing green electricity supply chain profit: Supply-demand adjustment/storage,

### and green electricity sales

### Supply-demand adjustment/storage

While the supply of renewable energy is increasing across Japan, the mismatch between supply and demand has led to a growing number of situations where the output potential of renewable energy cannot be fully utilized. To address this issue, functions for adjusting power supply and demand, as well as storing generated green electricity, are essential.

These functions are crucial for the responsible use of energy. The Cosmo Energy Group started validation of its power storage business in FY2023 at two locations: the Research & Development Center and company-operated service stations. We also plan to validate the power storage business at the Yokkaichi Kasumi Power Plant in FY2025.

In addition to acquiring know-how in storage battery operation and participating in new electricity market transactions, we will steadily accumulate expertise while leveraging external knowledge with a view to applying it to Cosmo Zero Carbon Solution and other initiatives.



### Green electricity sales

While the number of companies joining RE100, an international initiative for renewable energy, continues to grow each year, the proportion of green electricity used by these companies remains relatively low. As a result, the demand for renewable energy is expected to increase even further moving forward.

In FY2023, green electricity accounted for approximately 50% of the Group's electricity sales, which totaled 520 million kilowatt-hours. We aim to expand green electricity sales as we work toward achieving our target electricity sales volume of 1.0 billion kilowatt-hours in FY2025.



2020 2021

80,000

60.000

40.000

20.000

2017

Reported electricity consumption

2018 2019

Re

#### Electricity sales volume



### Initiatives to realize the value of green electricity

demand

As installed renewable energy capacity rapidly increases, Japan is transitioning from the FIT scheme<sup>1</sup> to the FIP scheme<sup>2</sup> to control the rise in national burden and better integrate renewable energy into the electricity market. In addition, fixed purchase prices under the FIT scheme are steadily declining, making it essential to capture the growing demand for renewable energy to maintain and increase profitability.

The Cosmo Energy Group is utilizing corporate PPAs<sup>3</sup> to secure long-term, stable supply contracts while working to realize the full value of green electricity. (For further information on corporate PPA initiatives, please refer to (Page 42).)

1 Under the Feed-in Tariff (FIT) scheme, introduced in 2012, 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, introduced in April 2022, in addition to the revenue from selling electricity, a subsidy (premium) is provided to power generation companies. The scheme is designed to further promote renewable energy and its adoption as a main power source. Unlike the FIT scheme, where electricity generated at power plants is sold directly to power companies, the FIP scheme allows power producers to choose their sales channels, such as the wholesale market or direct contracts with consumers (corporate PPAs).

3 Corporate PPA: A long-term purchase agreement between a power producer and a consumer for renewable energy-derived electricity and its environmental value, or for environmental value alone.

Trend in FIT price (onshore wind power and new projects)\*

Image of prices under corporate PPAs



\*Created by the Group with reference to public information from the Agency for Natural Resources and Energy

### Initiatives for next-generation energy and CCS/CCU\*



business collaboration, followed by another such company in November of the same year focused on collaborative

April 2024

Opened the first hydrogen station for fuel cell commercial vehicles
 Signed a capital and business alliance agreement with Iwatani Corporation

Hydrogen station business

In February 2023, Cosmo Oil Marketing and Iwatani Corporation established Iwatani Cosmo Hydrogen Station LLC for collaboration in the hydrogen station business.

engineering services for hydrogen-

our partnership.

related projects, thereby strengthening

We also announced plans to open the first hydrogen station in Heiwajima (Ota City, Tokyo), and the opening ceremony for this station was held in April 2024.

In December 2023, we were selected as the operator of two new sites on land owned by the Tokyo Metropolitan Government (in Shinsuna and the Ariake Motors Sales Office) and aim to create a market for hydrogen stations for commercial vehicles such as large fuel cell trucks and buses.



Opening ceremony of the first hydrogen station



Artist's impression of Iwatani Cosmo Hydrogen Station Ariake Motors Sales Office (tentative name)



lwatani Cosmo Hydrogen Station Heiwajima



Artist's impression of Iwatani Cosmo Hydrogen Station Shinsuna (tentative name)

### Hydrogen engineering business

In November 2023, Cosmo Engineering and Iwatani Corporation established Cosmo Iwatani Hydrogen Engineering LLC for collaboration in engineering services for hydrogen-related projects.

By leveraging the engineering technologies and capabilities of Cosmo Engineering, along with Iwatani Corporation's expertise in the hydrogen sector, we aim to secure contracts for large-scale hydrogen supply chain projects.

### Capital and business alliance with Iwatani Corporation

The Cosmo Energy Group and Iwatani Corporation have maintained a strong relationship over many years through transactions involving LPG and petroleum products. In 2022, we signed a basic agreement to explore collaboration in the hydrogen business. With the shared view that further deepening our partnership while combining our respective management resources and expertise will create new synergies and enhance enterprise value for both companies as we move toward carbon neutrality by 2050, we concluded a capital and business alliance agreement in April 2024.

The agreement outlines our commitment to exploring various areas, including efforts to realize a decarbonized society and strengthening our relationship in existing business fields. Particularly in the hydrogen sector, in addition to our existing collaborative relationship, we aim to expand the establishment of hydrogen stations utilizing our Group's service station network and make the most of both our companies' respective management resources, such as knowledge and infrastructure, to build a hydrogen supply network that encompasses production, supply, and retail sales.

#### Fields of business alliance

- Strengthening of relationship in existing business sectors
- existing business sectors
- Strengthening and optimization of procurement functions in the energy sector
- Strengthening of production functions in the industrial gases sector
- Strengthening of production and sales functions in the chemicals and resources sectors
- Joint marketing leveraging our respective customer bases

\*For further information on initiatives related to CCS/CCU, please refer to Page 54).

#### Efforts to realize a decarbonized society

- Development of infrastructure for a hydrogen energy society
- Production of green hydrogen in Japan
- Expansion of decarbonization-related businesses
- Promotion of next-generation fuel development

**Capital Policy** 

### Realizing our three-pronged capital policy



### **Financial health**

For the Seventh MTMP period, we set a net debt-to-equity ratio of 1.0 times and a net worth of ¥600.0 billion or more as our financial health targets. 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. Thanks to the favorable earnings environment, we have achieved both our net debt-to-equity ratio and net worth targets as of the end of FY2023.

#### Trend in financial health



### Shareholder returns

We regard the appropriate return of profits to shareholders as an important management measure, and we are working to ensure the early realization of a cumulative three-year total payout ratio of 60% or more for the Seventh MTMP. In FY2023, we revised our dividend forecast upwards twice during the term, raising it to ¥300 per share. We also increased the minimum dividend to ¥300 or more per share during the Seventh MTMP period as we look ahead to FY2024. Moving forward, we will continue to flexibly consider the early realization of returns while keeping a close eye on the earnings environment, stock price, and other factors.

#### Trend in net worth and total payout ratio



### **Capital efficiency**

For the Seventh MTMP period, although we project that our net worth, which increased significantly under the Sixth MTMP, will improve even further, as well as increased investment to expand *New* fields, we aim to steadily generate ROE of 10% or more.

#### Trend in ROE and net worth



Management Foundation Transformation

### **HRX**·DX·GX

To transform our management foundation under the Seventh MTMP, we will undertake three types of transformations.

HRX

In line with our human resource transformation (HRX) action policy to pursue a people strategy that motivates employees and harnesses their skills, we are undertaking initiatives in three areas: human resource cultivation and development, organizational culture, and health. In FY2023, we made a human capital investment of ¥130,000 per person, an increase of ¥30,000 from the previous fiscal year. In addition to focusing on activities to encourage self-directed learning by individuals and expanding support for learning aimed at self-development, we also committed to developing the capabilities of line managers, who are key to human resource development. In FY2023, we achieved an engagement index of 60 points, meeting our target set forth in the Seventh MTMP. The promotion of one-on-one meetings between supervisors and their subordinates is stimulating communication in the workplace and increasing opportunities for employees to feel a sense of fulfillment and pride in their work.



In keeping with our digital transformation (DX) action policy to transform business model through digital capabilities and change management, we are working to establish data utilization infrastructure and cultivate digital talent.

The number of core digital personnel developed in FY2023 totaled 389, and we are making steady progress toward achieving our MTMP target of 900 people. In FY2023, we focused on cultivating core digital personnel, while implementing our Cosmo DX strategy, which involves participation by all employees, in earnest, through initiatives like offering classroom-based learning and practical support as a set.



In accordance with our green transformation (GX) action policy to realize roadmap to achieve net zero carbon emissions, we are advancing efforts net zero carbon emissions by 2050, including Scope 3, in order to fulfill our responsibility to provide a stable supply of energy and contribute to realizing carbon neutrality across society as a whole. Greenhouse gas (GHG) emission reductions in FY2023 were reduced by 15% compared to FY2013. In addition to implementing energy-saving measures, we are making steady progress toward achieving our 2030 target due to the impact of regular maintenance and other factors related to refinery operations. As the external environment, including various laws and regulations, undergoes significant changes, we are committed to strengthening our internal systems in order to give a higher level of consideration to investments to reduce emissions.

КРІ	FY2022 Actual	FY2023 Actual	FY2025 Target
Human capital investment	<b>¥100,000</b> per person	<b>¥130,000</b> per person	<b>¥180,000</b> per person
Engagement index	<b>57</b> points	<b>60</b> points	≥60 points

KPI	FY2022 Actual	FY2023 Actual	FY2025 Target
Core digital personnel	-	389 people developed	900 people developed

КРІ	FY2022 Actual	FY2023 Actual	FY2030 Target
GHG emissions reduction (vs. FY2013) Including Scope 1, 2, and reduction contribution	-9.5%	-15%	-30%



1 Announced in March 2023; ≥¥300 per share as of May 2024 2 Before factoring in sales of assets (¥16.5 bil.) 3 FY2030 target

### **Capital Policy**

At the Cosmo Energy Group, we are committed to further enhancing enterprise value by refining our three-pronged capital policy.

### Taisuke Matsuoka

Director, Senior Executive Officer In charge of Corporate Planning Dept., Finance Dept., Power Business Management Dept., New Energy Business Management Dept.

Since the LPG tank explosion at the Chiba Refinery caused by the 2011 Great East Japan Earthquake, the Cosmo Energy Group has continued to face challenging times in terms of our business performance and financial position. That said, we were able to improve our financial position to a certain extent by significantly strengthening our profitability under the Sixth Consolidated Medium-Term Management Plan (hereafter, "the Sixth MTMP"), which sought to improve our financial position.

Under the Seventh Consolidated Medium-Term Management Plan (hereafter, "the Seventh MTMP"), which focuses on enterprise value enhancement, the objective of our capital policy is to "implement a three-pronged approach that places equal emphasis on shareholder returns, financial health, and capital efficiency." By putting this capital policy into action, we aim to enhance enterprise value.

In FY2023, although our price book-value ratio exceeded 1.0 times, I believe that it's important to take a balanced, unbiased approach to increasing the aforementioned three elements of our capital policy in order to continue to meet the expectations of capital markets.

On the other hand, from the perspective of enhancing enterprise value, we recognize that a price book-value ratio of 1.0 times is not our goal, but a starting point. We will work to further enhance enterprise value by refining our capital policy, as well as increasing profitability, expanding *New* fields, and transforming our management foundation.

### **Capital efficiency**

In FY2023, despite issues at refineries faced by the Petroleum Business, operating rates remained high thanks to our short position strategy in which sales volume exceeds production volume. Despite the challenges in each business segment, such as the Petrochemical Business recording a loss due to deteriorating market conditions, I think it's worth noting that the Petroleum Business and Oil Exploration and Production Business drove earnings, helping us achieve our capital efficiency target from the first year of the Seventh MTMP.

Moving forward, we will continue to further improve capital efficiency, while remaining vigilant about maintaining a balance with financial health.

In addition, under the Seventh MTMP, we have set a companywide ROIC target of 6% or more, while working to manage and improve capital efficiency by segment. We aim to further enhance our strategy for improving capital efficiency by maximizing revenue in each segment and optimizing investment capital.

Trend in refinery operating rate



### **Capital Policy**



In order to further improve capital efficiency, it's also important to strike a balance with growth investment. Of the ¥420.0 billion total investment set forth in the Seventh MTMP, we're planning to invest ¥140.0 billion in *New* fields. In the energy industry, which is currently undergoing a period of transformation, both the market environment and the direction of policies and regulations may change significantly in a short period of time. In particular, when it comes to investing in *New* fields, it's necessary to carefully assess medium- to long-term profitability, while steadily implementing measures to secure future growth.

In addition, we will give serious consideration to

initiatives aimed at achieving net zero carbon emissions by 2050 from the perspectives of both climate change countermeasures and economic rationality, while partnering with outside companies and making use of government and other subsidies.

### **Financial health**

Regarding financial health, we set targets in the Seventh MTMP after conducting a multifaceted examination of the risks associated with each segment's assets, required capital efficiency, and flexible financing.

To calculate our required net worth, we analyzed the performance of approximately 130 companies in total, 30 to 40 companies in each segment, and used this objective data as the basis for our calculations. In terms of our net debt-toequity ratio, we decided to maintain the same level of financial discipline as we did at the end of the Sixth MTMP.

Due to the solid earnings environment, we have achieved both our net debt-to-equity ratio and net worth targets set out in the Seventh MTMP as of the end of FY2023. Although we originally expected to achieve our net worth target during FY2024, we achieved our target earlier than planned due to our strong performance in FY2023, underpinned by improved margins in the Petroleum Business and other factors.

From a financing perspective, our Group obtained A- ratings in FY2022 as a result of strengthening our profitability and improving our financial position, and in FY2023 we issued straight bonds for the first time in 13 years. Going forward, we remain committed to expanding the scale of our direct financing, and will also actively consider leveraging ESG finance\*.

We would also like to work towards an even higher rating given the need to diversify our financing methods in response to the global trend towards decarbonization.

\*
Notice Regarding Formulation of the Green Finance Framework https://www.cosmo-energy.co.jp/content/dam/corp/jp/en/ press/2024/240731-01/240731en\_01.pdf

ESG Finance

https://www.cosmo-energy.co.jp/en/ir/stock/esgfinance.html



#### Net worth and net D/E ratio

(¥ billion)

#### **Capital Policy**

### Shareholder returns

When the Seventh MTMP was first announced, we set a target cumulative three-year total payout ratio to profit attributable to owners of parent (excluding the impact of inventory valuation) of 60% or more and a target dividend of ¥200 or more per share.

As we were able to confirm the feasibility of achieving a solid earnings level, we revised our dividend forecast upwards twice during FY2023 to ¥300 or more per share, and we increased the minimum dividend for the Seventh MTMP period to ¥300 per share. In addition, we also executed a share buyback totaling ¥23.0 billion, achieving a total payout ratio of over 60% in a single year.

Furthermore, under the Seventh MTMP, our Group's policy is to return to shareholders any profits over and above a net worth of ¥600.0 billion when our financial health targets are achieved in terms of both net debt-to-equity ratio and net worth. As mentioned earlier, we met our financial health targets earlier than expected due to our solid business performance in FY2023.

In light of these factors, we aim to achieve our target total payout ratio as soon as possible, while continuing to proactively return profits to shareholders from FY2024 onwards.

### Message to shareholders

The capital policy set forth in the Seventh MTMP has been highly evaluated by domestic and foreign institutional investors for its exceptional clarity.

As we will soon start to consider the capital policy for our next medium-term management plan, our focus will remain on striking a balance between shareholder returns, financial health, and capital efficiency. We plan to determine our direction after engaging in repeated dialogue with capital markets.

I look forward to your continued support of our capital policy as we work to enhance enterprise value.

#### Bolstering shareholder returns

Annual dividend per share

FY2024 forecast	FY2023	YoY
¥300	¥300	-

#### Consolidated profit and loss compared to the previous fiscal year

	FY2023	FY2022	YoY	FY2024 forecast	YoY
Ordinary profit (excl. the impact of inventory valuation)	162.2	142.9	19.3	160.0	-2.2
Profit attributable to owners of parent	82.1	67.9	14.2	79.0	-3.1
Profit attributable to owners of parent (excl. the impact of inventory valuation)	82.4	52.8	29.6	75.5	-6.9
Net worth	601.2	527.9	73.3	630.0	28.8
Net worth ratio (%)	27.2	24.9	2.3	27.2	0.0
Net D/E ratio (times)	0.83	1.10	-0.27	0.89	0.06

Management Discussion and Analysis

Building on the steady progress made in FY2023, we expect to achieve our targets in FY2024 as well.

Tomoki Iwai Senior Executive Officer In charge of Accounting Dept. and Legal & General Affairs Dept.

### Summary of consolidated profit and loss

### FY2023 results

In FY2023, ordinary profit excluding the impact of inventory valuation stood at ¥162.2 billion, up ¥19.3 billion year-onyear, and profit excluding the impact of inventory valuation was ¥82.4 billion, up ¥29.6 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 ¥91.3 billion, up ¥47.2 billion year-on-year due to factors such as improved domestic petroleum refining margins and the streamlining of expenses despite the impact of regular maintenance and issues at refineries. In the Petrochemical Business, ordinary profit decreased ¥11.6 billion year-on-year to -¥7.8 billion due to the deteriorating of methyl ethyl ketone (MEK) market conditions and other factors. In the Oil E&P Business, ordinary profit decreased ¥16.2 billion year-on-year to ¥68.3 billion due to a fall in crude oil prices, etc. In the Renewable Energy Business, ordinary profit increased ¥0.2 billion year-on-year to ¥2.8 billion thanks to improved wind conditions and other factors.

### FY2024 forecast

In FY2024, we forecast ordinary profit excluding the impact of inventory valuation to decrease by ¥2.2 billion year-on-year to ¥160.0 billion, profit excluding the impact of inventory valuation to decrease by ¥6.9 billion year-on-year to ¥75.5 billion. We forecast that the impact of inventory valuation will increase by ¥5.0 billion.

Regarding the breakdown of forecasted ordinary profit excluding the impact of inventory valuation for each segment, in the Petroleum Business, despite the absence of issues at refineries, the deteriorating of market conditions other than for the four main products, the waning positive time lag from the previous fiscal year, and year-on-year differences in the scale of regular maintenance are expected to contribute to ordinary profit of ¥81.0 billion, a decrease of ¥10.3 billion year-on-year.

In the Petrochemical Business, ordinary profit is projected to increase by ¥7.8 billion year-on-year to ¥0.0 billion due to improvements in sales volume and MEK market conditions, and other factors.

In the Oil E&P Business, ordinary profit is expected to decrease by ¥2.3 billion year-on-year to ¥66.0 billion, due to an increase in operating expenses and other factors, while crude oil prices are expected to rise in line with the depreciation of the Japanese yen.

In the Renewable Energy Business, ordinary profit is forecast to decrease by ¥0.8 billion year-on-year to ¥2.0 billion, due to an increase in personnel expenses and other costs.

#### In closing

In FY2023, the first year of the Seventh MTMP, we were able to steadily build up profits despite issues at our refineries. While the operating environment for the Petrochemical Business remains challenging, domestic refining margins in the Petroleum Business have remained stable, and profits have been strong. In this environment, we will strive to further improve the level of safe and stable operations at our three refineries, while aiming to achieve our profit plan by maximizing refinery uptime through digital transformation (DX) and the use of artificial intelligence (AI).



Foundation

Data

1. Temporary impact of subsidies to curb the impact of a surge in gasoline and

2. Booking of profit and the impact of national holidays on tax payments (one-time factor), etc.

3. Construction of onshore wind power sites and secondary recovery investment in the

4. Additional impacts due to changes in the deposit term for time deposits (one-time

(¥ billion)

other fuel prices

Hail Oil Field, etc.

factor), etc.

#### Management Discussion and Analysis

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

				(† DIIIOI)
	FY2023	YoY	FY2024 forecast	YoY
Net sales	2,729.6	-62.3	3,200.0	470.4
Ordinary profit	161.6	-2.9	165.0	3.4
Impact of inventory valuation	-0.6	-22.2	5.0	5.6
Ordinary profit (excluding the impact of inventory valuation)	162.2	19.3	160.0	-2.2
Petroleum Business	91.3	47.2	81.0	-10.3
Petrochemical Business	-7.8	-11.6	0	7.8
Oil E&P Business <sup>1</sup>	68.3	-16.2	66.0	-2.3
Renewable Energy Business	2.8	0.2	2.0	-0.8
Other <sup>2</sup>	7.6	-0.3	11.0	3.4
Profit attributable to owners of parent	82.1	14.2	79.0	-3.1
Dubai crude oil price (US\$/barrel, Apr. to Mar.)	82	-11	85	3
Foreign exchange rate (¥/US\$, Apr. to Mar.)	145	10	145	0

1 Operating companies (Abu Dhabi Oil, Qatar Petroleum Development, United Petroleum Development) have fiscal years ending in December.

2 Consolidated adjustment included.

Consolidated ordinary profit (excluding the impact of inventory valuation)



### Overview of consolidated cash flows and consolidated balance sheet

Consolidated cash flows		(¥ billion
	FY2022	FY2023
Cash flows from operating activities (1)	8.1 <sup>1</sup>	<b>177.9</b> <sup>2</sup>
Cash flows from investing activities (2)	-81.2 <sup>3</sup>	<b>-32.8</b> <sup>4</sup>
Free cash flow (1+2)	-73.1	145.1
Cash flows from financing activities	81.1	-104.2
Cash and cash equivalents at end of the period	61.8	105.5

### Consolidated balance sheet

	Mar. 31, 2023	Mar. 31, 2024	YoY
Total assets	2,120.8	2,212.6	91.8
Net assets	663.4	727.4	64.0
Net worth	527.9	601.2	73.3
Net worth ratio (%)	24.9	27.2	2.3
Net interest-bearing debt*	581.9	501.0	-80.9
Net debt-to-equity ratio (times)	1.10	0.83	-0.27

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

FY2022

FY2024 (forecast)

### Cosmo Energy Group Businesses ~Present and Future~



Μ	iss	ion
	100	1011

### **Business Overview**

	Petroleum Business (Refining and Sales)	Petrochemical Business	Oil Exploration and Production Business	Renewable Energy Business	Total
Net sales (FY2023 results)	¥ <b>2,445.6</b> billion	¥ <b>361.8</b> billion	¥ <b>127.8</b> billion	¥ <b>14.3</b> billion	¥ <b>2,729.6</b> billion
Ordinary profit (FY2023 results)	¥ <b>90.7</b> billion/¥ <b>91.3</b> billion (excluding the impact of inventory valuation)	¥ <b>-7.8</b> billion	¥ <b>68.3</b> billion	¥ <b>2.8</b> billion	¥ <b>161.6</b> billion/¥ <b>162.2</b> billion (excluding the impact of inventory valuation)
Number of employees (as of March 31, 2024)	4,072 people	1,142 people	<b>298</b> people	232 people	6,530 people
Major operating companies and affiliated companies (as of March 31, 2024)	Cosmo Oil Cosmo Oil Lubricants Cosmo Oil Marketing Cosmo Oil Sales Cosmo Energy Solutions GYXIS Corporation Kygnus Sekiyu, others	Maruzen Petrochemical Cosmo Matsuyama Oil CM Aromatics HD Hyundai Cosmo Petrochemical, others	Cosmo Energy Exploration & Production Abu Dhabi Oil Qatar Petroleum Development United Petroleum Development Cosmo E&P Albahriya, others	Cosmo Eco Power CSD Solar, others	

#### 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:

#### 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.



When crude oil prices rise

#### When crude oil prices fall

Average of purchased inventory unit prices during the period and the higher inventory unit prices at the start of the period

Cost of sales is pushed up (negative inventory valuation)



Data

### 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.

- Crude oil processing capacity<sup>1,2</sup> 400,000 barrels/ day (domestic market share 12.4%)
- Domestic sales volume<sup>3</sup> Selling volume in Japan 22,280 thousand KL
- Number of Japan-based service stations<sup>1</sup> 2,602
- Number of Cosmo The Card holders<sup>1</sup> 3.62 million
- Number of Carlife Square app downloads<sup>1</sup> 7.26 million
- Cumulative number of Cosmo My Car Lease contracts<sup>1</sup> 119,737 vehicles

1 As of March 31, 2024

2 Including the supply of petroleum products/semi-finished products (37,000 barrels/day equivalent) from Idemitsu Kosan Group based on a business alliance 3 EY2023 results

- 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
- Risk 10 Risk 6

Risk 5

 Changes in customer trends, digitization, and the wider acceptance of cashless payments Risk 1

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

Competitive advantages

• Maintaining high operating rates at refineries despite

Reinforcing connections with customers, and solid

connections with service station operators and

Development of brand products (Cosmo My Car

Lease, Commitment Compulsory Car Inspection, Cosmo Denki (Electricity), Cosmo Zero Carbon

High level of customer satisfaction, diversification of

payment methods, and value creation centered on

Globally accelerating trend toward carbon neutrality

decarbonized society (shift to EVs, green electricity,

Recovery in demand for jet fuel attributed to the

• CASE\* trends (mobility supply, maintenance, etc.)

and measures to support the shift to a

lifting of COVID-19 border controls

partners in other industries

Solution)

branding activities

and new energy)

declining demand (a supply shortage position

associated with fuel supply to Kygnus Sekiyu)

### FY2023 results and FY2024 forecast

In FY2023, despite regular maintenance and the impact of issues at refineries, sales amounted to ¥2,445.6 billion, down ¥5.9 billion year on year, and ordinary profit (excluding the impact of inventory valuation) totaled ¥91.3 billion, up ¥47.2 billion year on year, thanks to improved margins, reduced expenses, and other factors.

In FY2024, despite the absence of the refinery issues we faced in FY2023, we forecast an ordinary profit of ¥81.0 billion, a decrease of ¥10.3 billion year on year, due to deteriorating market conditions other than for the four products and the difference in regular maintenance compared to the previous fiscal year.

#### Segment ordinary profit

#### (excluding the impact of inventory valuation) (¥ billion) 90.0 93.7 91.3 81.0 53.3 45.0 44.1 44 0 2019 2020 2021 2022 2023 2024 (Fiscal (Forecast) year)

Yasuhiro Suzuki

President, Represe Director and CEO

Cosmo Oil Co. Ltd

#### Four product sales volume



We will establish smart next-generation refineries that ensure safe operations, stable supply, and carbon neutrality.

We will continue to offer our customers better solutions as an energy and mobility service provider.



Figures in boxes correspond to priority risks. For further information, please refer to Priority Risks in the Strengthening Group Risk Management section on (Page 68).



Risk 8

Risk 5
#### PETROLEUM BUSINESS

#### **Business strategy** Key concepts of the Seventh Consolidated Medium-Term Management Plan

•Ensure high uptime and high-efficiency operations at refineries Utilize IT and digital technologies



#### 1. Asset Performance Management (APM) System

To fulfill our responsibility to offer a safe and stable supply of energy that supports society while maintaining high uptime at our facilities, reinforcing maintenance operations and improving equipment reliability are critical challenges that we face. To address these two key challenges, we introduced the Asset Performance Management (APM) System in FY2023 as a means for overseeing, managing, and advancing our maintenance strategy processes. This system aims to optimize maintenance costs, improve productivity of maintenance operations, and reduce incidents that lead to unplanned stoppages. By leveraging big data, we will accelerate our efforts in preventive maintenance, with an even higher level of predictability, comprehensiveness, and manageability.

#### 2. Digital twins

We adopted a data integration platform designed exclusively for the manufacturing industry, which has been operational since May 2024. In addition to strengthening competitiveness through the utilization of digital tools in our existing businesses and operations, we aim to improve efficiency and sophisticate operations by leveraging generative AI and data analysis. Through this system, we are creating digital twins by replicating our real-world refineries in a virtual space, allowing us to check plant conditions in a virtual environment. This enables us to keep an eye on what's happening in our facilities and develop maintenance plans remotely. Moving forward, we plan to explore efficient operations, including support for remote troubleshooting between refineries and collaborative maintenance (maintenance coordination and functional integration), regardless of work location.

reliability (preventing defects)

and optimize maintenance

#### Reduction of unplanned stoppages: APM



process (eliminates

accurate evaluation)

dependency on individuals

and allows for quantitative and

amounts of maintenance and operating data to APM Improvement in life evaluation accuracy by comparing operating and maintenance data with in-house standards and alobally recognized technical information

 All equipment (230,000 pieces) on risk level, with maintenance is centrally managed (shift away from decentralized costs allocated to the highest-risk projects first management) Risks are prioritized based on APM capabilities are leveraged risk assessments in the APM to improve equipment

costs



scattered across paper documents, electronic files, and

other media, the time required for data collection has

been significantly reduced.

جلله

Data integration platforms

Enable efficient digital-driven sales

We are making the most of the power of marketing science in our data-driven digital marketing efforts. By fundamentally rethinking the customer experience and incorporating data-based approaches, we will further evolve our personalized and omnichannel marketing strategies.

#### 1. Increasing sophistication of fuel oil sales

We are developing initiatives to increase fuel oil sales through the analysis of accumulated data. For instance, we have optimized our sales strategies by analyzing customer purchasing patterns alongside market trends, as well as increasing demand and forecasting accuracy.

### 2. Promoting initiatives through data linkage

We are implementing initiatives that help us better understand our customers and address their diverse needs by linking our customer data with data from partners in different industries and utilizing it. In our communications with customers, we can now deliver personalized, optimal information based on each customer's interests and past behaviors at the right time. To date, we have been strengthening our connections with customers through an app, with services such as Commitment Compulsory Car Inspection, which allows users to complete everything from getting estimates to making payments on the app, as well as providing coupons for fuel oil and car care products, and notifying users of recommended times to refuel. Moving forward, our goal is not only to enhance communications with individual customers but also to be able to improve the overall customer experience through data utilization. To achieve this end, we will continue to engage in innovative digital communication in pursuit of higher levels of customer satisfaction and increased sales capabilities.

#### Increasing sophistication of fuel oil sales through marketing science



Based on these scenarios, individual messages are delivered automatically to each customer at the right time and via the ideal channel This approach enhances the customer experience and increases purchase rates not only for fuel oil but also for a variety of services like Cosmo My Car Lease, Commitment Compulsory Car Inspection, Cosmo Denki (Electricity), etc.

#### Linkage of external data from partners in different industries in addition to basic data accumulated in-house



----

Data

COSMO ENERGY HOLDINGS

37

## PETROCHEMICAL BUSINESS



### Overview

In the Petrochemical Business, Maruzen Petrochemical, a Group company, provides a stable supply of petrochemical products as an ethylene center within the petrochemical complex. Additionally, we are also expanding production of specialty chemicals for use in chemical product and semiconductor production processes.

#### Management resources

- Olefin production capacity<sup>1</sup> Ethylene 1.29 million tons/year
   Aromatic production capacity<sup>1</sup> Para-xylene 1.36 million tons/year Benzene 735,000 tons/year
- Mixed-xylene 618,000 tons/year 1 As of March 31, 2024

### Identified risks

- High volatility in petrochemical product prices
- Decreased domestic demand and export limitations due to China's economic slowdown and increased in-country manufacturing
- Relaxation of supply and demand resulting from new construction/ expansion of overseas plants
- Sharp increase in raw material prices due to international conflicts, the depreciation of the Japanese yen, and other factors
- \* Figures in boxes correspond to priority risks. For further information, please refer to Priority Risks in the Strengthening Group Risk Management section on (Page 68).

### Competitive advantages

- Maintaining a world-leading market share in semiconductor photoresist<sup>2</sup> polymers
- A diverse range of polymers available
- The ability to meet the high quality requirements of customers and increased production volume through state-of-the-art manufacturing and analytical technologies, as well as quality assurance
- Located in the Chiba area close to Tokyo, with one of Japan's largest ethylene production capacities
- Promoting cooperation in oil refining between Cosmo Oil's Chiba Refinery (Petroleum Business) and the petrochemical complex it is part of
- 2 Photoresist: Photosensitive material used in photolithography to create fine patterns on semiconductor devices, etc.

#### 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)

### FY2023 results and FY2024 forecast

In FY2023, production volumes declined and prices fell due to a decrease in offtake volume associated with production adjustments by domestic users, regular maintenance, and equipment issues, along with a deteriorating export environment as a result of factors such as a decrease in demand due to the sluggish Chinese economy and oversupply resulting from the operation of newly opened plants in Asia. In particular, MEK market conditions, which were favorable overseas in the previous fiscal year, deteriorated significantly in FY2023, while para-xylene sales volume declined. As a result of these and other factors, segment sales totaled ¥361.8 billion, down ¥78.4 billion year on year, and ordinary profit amounted to -¥7.8 billion, down ¥11.6 billion year on year.

In FY2024, we anticipate that this challenging business environment will persist. However, we will make concerted efforts as we strive to turn a profit through a year-on-year increase in base prices for domestic sales, capitalizing on improved MEK market conditions, driving continued growth in semiconductor photoresist polymers, and leveraging other opportunities.

#### Segment ordinary profit



# We will continue to embrace the challenge of transformation amid significant environmental changes.



Risk 5

Risk 5

Risk 5

Risk 2

Risk 1

Risk 1

### PETROCHEMICAL BUSINESS

Mission

**Business strategy** Key concepts of the Seventh Consolidated Medium-Term Management Plan

Increase production of semiconductor photoresist polymers



Semiconductor photoresist polymers are custom-made products tailored to the specific requirements of our customers. They are characterized by their low degree of substitutability, as their properties are influenced by factors such as structure, molecular weight, composition, manufacturing methods, production equipment operating conditions, and contaminants. At Maruzen Petrochemical, we have expanded our business by responding to customer requests and providing products across a variety of grades through timely collaboration in development, manufacturing, and sales in order to provide optimal quality that aligns with the processes of resist manufacturers.

### Semiconductor photoresist polymer value chain



### 2. Business strengths

At Maruzen Petrochemical, we have strengthened our capability to make proposals on timely new developments to support our customers—whom we view as partners, with their business expansion efforts, receiving high praise for our ability to quickly provide sample products and assure quality. Building trust and maintaining good relationships with our customers are the strengths of our business.

Additionally, our technical advantages include technologies for removing trace metal contaminants and quality control. These technologies allow us to reduce metal contaminants to the parts per billion (ppb) level. Furthermore, our capability to offer a stable supply of high-quality products is also a significant advantage. As a result, we command a strong global market share, and the number of new grade developments continues to grow steadily.

#### Global market share by product (as estimated by the Company)



1 KrF (krypton fluoride): An excimer laser, which is a light source for exposure with a wavelength of 248 nm 2 ArF (argon fluoride): An excimer laser, which is a light source for exposure with a wavelength of 193 nm

3 EUV (extreme ultraviolet): A next-generation light source used as an exposure technology in semiconductor manufacturing

### 3. Semiconductor photoresist polymer demand forecast

The demand for semiconductor photoresist polymers is expected to continue growing at an annual rate of approximately 10%, driven by growth of the photoresist market due to increasing semiconductor demand resulting from faster and higher-volume data communication. Consequently, an increase in sales of currently marketed products is anticipated.

Looking ahead, we anticipate

significant growth in EUV photoresists and other products that can be used to create finer semiconductor patterns that support advancements in artificial intelligence (AI) technologies and next-generation communication systems (5G). We are actively undertaking development in line with the needs for further miniaturization to steadily secure new orders.

#### Trend in overall global semiconductor market\*





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

### 4. Actions in anticipation of long-term demand growth

In response to the increasing demand for semiconductor photoresist polymers, it is imperative to enhance our capabilities. On the production front, we established a new production facility for EUV photoresist polymers in FY2022, a cutting-edge technology for which demand is expected to grow and have been increasing sales volume since the facility became operational. For ArF photoresist polymers, we are investing in expanding and strengthening our production capacity in FY2024 to meet the growing demand from existing customers. Regarding our efforts to increase production of thick-film photoresist polymers\*, a KrF photoresist polymer, the new facility completed in FY2021 is operating smoothly.

On the sales front, we have rolled out proprietary, in-house developed grades and are working to not only retain existing customers but also to acquire new ones.

Moreover, in terms of strengthening research and development and guality control, we established a dedicated framework by spinning off the Functional Resin Technology Development Center, which focused on the specialty chemicals business, from our research center. By developing a system that allows for centralized management and operation from the development to manufacturing of semiconductor photoresist polymers and new materials, and by enhancing collaboration with our sales division, we aim to be able to respond more rapidly.

We remain committed to reinforcing our framework to meet the ongoing technological innovation and quality improvement of semiconductors.

\*Thick-film photoresist polymer: A photoresist polymer with properties suitable for higher integration of flash memory, characterized by high concentration (high viscosity) and low metal content

#### Mission

Data

## OIL EXPLORATION AND PRODUCTION BUSINESS

Risk 1

Risk 5

Risk 10



### Overview

The Oil Exploration and Production 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 longstanding relationships of trust.

#### Management resources

- Crude oil production volume<sup>1</sup> Approx. 37,000 barrels per day (comparison with crude oil processing capacity: approx. 9%)
- Crude oil reserves (proved and probable)<sup>2</sup>
   155.0 million barrels (equivalent to approx. 19 years' worth of supply)

1 FY2023 results 2 As of December 31, 2023

### **Identified risks**

 Risk of stranded assets associated with the shift to a fossil fuel-free society

 Risks related to crude oil prices and production

 Risks of accidents in oil fields and at production facilities

 Risks related to exploration and development (Not applicable<sup>4</sup>)

4 We also manage risks that are not included in the top risks as part of company-wide risk management.

Figures in boxes correspond to priority risks. For further information, please refer to Priority Risks in the Strengthening Group Risk Management section on (Page 68).

### Strong relationship with the Emirate of Abu DhabiHighly competitive oil fields through self-operation

**Competitive advantages** 

Advantages in CCS/CCUS<sup>3</sup>

- 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<sup>3</sup> technologies
- Potential collaboration with oil-producing countries in the field of decarbonization

3 CCS: Carbon dioxide Capture and Storage CCUS: Carbon dioxide Capture, Utilization, and Storage

### FY2023 results and FY2024 forecast

In FY2023, sales amounted to ¥127.8 billion, down ¥10.2 billion year on year, and ordinary profit totaled ¥68.3 billion, down ¥16.2 billion year on year, due to falling crude oil prices (Dubai crude oil price averaging \$82 per barrel from November 2022 to October 2023, down \$13 per barrel year on year) and other factors.

In FY2024, despite a projected rise in crude oil prices associated with the depreciation of the Japanese yen, ordinary profit is expected to reach ¥66.0 billion, a decrease of ¥2.3 billion year on year, due to increased operating costs and other factors.

(B/D)

60,000

#### Segment ordinary profit

#### Crude oil production volume



\*Production volume through FY2022 is the total for key oil developers—Abu Dhabi Oil, Qatar Petroleum Development and United Petroleum Development—while production volume from FY2023 onwards is the total for Abu Dhabi Oil and United Petroleum Development.



We are working to expand our business in the areas of oil development and decarbonization.



OIL EXPLORATION AND PRODUCTION BUSINESS

### Business strategy Key concepts of the Seventh Consolidated Medium-Term Management Plan

Strengthen profit structure further based on safe and stable operations



Group company, Abu Dhabi Oil, acquired an interest in the Hail Oil Field—an undeveloped discovered structure—in December 2012, and commenced production in November 2017. By January 2018, the field had reached full production capacity, and operations continued smoothly. However, a more rapid decline in reservoir pressure than initially expected was observed, prompting a reduction in production volume from 2019. To address this, we initiated secondary recovery investment by engaging in water flooding—a method of injecting water into the reservoir to restore pressure. We began water flooding in July 2023, and we are currently monitoring reservoir pressure while engaging in discussions with oil-producing countries as we prepare for full-scale production.

In addition to the Hail Oil Field, the Group is committed to maintaining and increasing the processing capacity of production facilities at existing oil fields and pursuing the development potential of our concession blocks. We will continue striving to maximize both crude oil recovery rates and production volumes.



In-operation drilling rig



Water flooding (image)



Hail Oil Field site terminal (artificial island)



Offshore drilling rig (well drilling equipment)

Consider measures to realize decarbonized businesses and explore ways to achieve low carbonization

#### 1. Decarbonization efforts leveraging our strong relationship with the Emirate of Abu Dhabi

The Group has been engaged in the safe and stable development and production of crude oil in the Emirate of Abu Dhabi in cooperation with Abu Dhabi National Oil Company (ADNOC) for over half a century. In addition to crude oil development and production, we have also been involved in environmental measures and initiatives that contribute to local communities, earning recognition as a trusted partner from both Abu Dhabi and ADNOC. Building on this relationship, Cosmo Energy Exploration & Production, a Group company, reached an agreement and concluded a Memorandum of Understanding (MoU) with ADNOC on March 2, 2022, concerning the exploration of technologies that contribute to decarbonization and the initiation of joint studies to assess the feasibility of CCS/ CCUS in Abu Dhabi. In pursuit of achieving net zero carbon emissions by 2050, we hold regular workshops with ADNOC to develop and apply decarbonization technologies and are exploring opportunities for collaboration in the field of decarbonization.

### 2. Commencement of initiatives aimed at new entry into lithium resource development

As part of our efforts to bolster the green electricity supply chain and expand next-generation energy, Cosmo Energy Exploration & Production established a US subsidiary, Cosmo E&P USA Inc., in October 2023, aiming to enter the lithium resource development business in the U.S. This move positions the Company to leverage its expertise in sub-surface evaluation and drilling technologies, which have been developed over many years in existing oil fields, giving us a competitive advantage in the business of recovering lithium from underground brine<sup>1</sup>.



1 Brine: Underground water containing salts such as lithium. Its composition varies depending on the underground conditions 2 DE: Abbreviation of Direct Lithium Extraction 3 Offtakers: Buyers or end-users of lithium carbonate and lithium hydroxide



### Overview

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

#### Management resources

- Wind power plant capacity<sup>1</sup> 310MW (No. 3 in Japan/6% domestic share)
- Solar power generation capacity<sup>2</sup> 24MW

1 As of December 31, 2023 2 As of March 31, 2024

#### **Identified risks**

Risk 2

Risk 2

Risk 2

- · Changes in government policies and systems related to renewable energy
- Decline in profitability resulting from intensified competition
- The domestic offshore wind power generation industry still in its early stages and has not yet matured

Figures in boxes correspond to priority risks. For further information, please refer to Priority Risks in the Strengthening Group Risk Management section on (Page 68).

### Competitive advantages

#### Onshore

 Industry-leading utilization rate by strong in-house technical capabilities in wind turbine maintenance and the installation of failure prediction systems

#### Offshore

• Commenced commercial operations of offshore wind power generation in Akita Prefecture

#### **Opportunities**

- Renewable energy will be the main power source as we look to achieve carbon neutrality by 2050
- 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 to the FIP scheme
- Expansion of the onshore wind power market (expected total capacity in 2030: 15.9GW<sup>1</sup>)
- 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<sup>2</sup>)
- 1 Source: Ministry of Economy, Trade and Industry, Energy Supply and Demand Outlook for FY2030 (Related Documents), October 2021

2 Source: Public-Private Council on Enhancement of Industrial Competitiveness for Offshore Wind Power Generation, Overview of the Vision for Offshore Wind Power Industry (1st), December 2020

### FY2023 results and FY2024 forecast

In FY2023, favorable wind conditions resulted in sales of ¥14.3 billion, an increase of ¥2.1 billion year on year, and ordinary profit of ¥2.8 billion, an increase of ¥200 million year on year.

In FY2024, ordinary profit is expected to total ¥2.0 billion, a decrease of ¥800 million year on year, due to factors such as rising personnel expenses.



#### Wind power plant capacity









We seek to become a leading company in creating a carbonneutral society.

#### **Business strategy** Key concepts of the Seventh Consolidated Medium-Term Management Plan

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



#### Onshore wind power generation business

### 1. Expanding onshore wind power

In the field of onshore wind power, we aim to secure generation capacity of over 900MW by 2030 through new developments and the replacement of existing wind farms. For the Shin-Mutsu-Ogawara Wind Farm (Aomori Prefecture, installed capacity approx. 33MW) and the Shin-Iwaya Wind Park (Aomori Prefecture, installed capacity approx. 27MW), we have shortened the originally planned three-year construction period to two years after starting the replacement period in March 2023, with operations scheduled to commence before the end of FY2024. Additionally, we are actively advancing projects that have already obtained Feed-in Tariff (FIT) certification, including beginning construction of the Abukuma Minami Wind Farm (Fukushima Prefecture, installed capacity approx.

89MW\*) in November 2023, while also proactively undertaking the further development of new projects as we seek to ensure we meet our targets.

Furthermore, the Group signed its first corporate power purchase agreement (PPA) in 2024, seeking to maximize the value of green electricity. This agreement will ensure that we can secure long-term, stable renewable energy customers while also realizing the value of green electricity.



Shin-Mutsu-Ogawara	Himekami		
	Se la		
FY2024	April 2019		
33MW	18MW		
Amazon	Panasonic Group Tokyo Metro		
20 years	Approx. 15 years		
	Shin-Mutsu-Ogawara FY2024 33MW Amazon 20 years		

Planned operation start date	Installed capacity (as disclosed in August 2024)			
FY2024	Shin-Mutsu-Ogawara (Aomori) Approx. 33MW Shin-Iwaya (Aomori) Approx. 27MW			
FY2025	Enshu (Shizuoka) Approx. 6MW Abukuma Minami 1st (Fukushima) Approx. 35MW*			
Second half of FY2026	Abukuma Minami 2 <sup>nd</sup> (Fukushima) Approx. 54MW* Chuki No. 2 (Wakayama) Approx. 39MW			
FY2027	Hasaki (Ibaraki) Approx. 15MW			
By FY2030	Shimamaki (Hokkaido) Approx. 95MW Yokohama-machi (Aomori) Approx. 56MW Aizuwakamatsu (Fukushima) Approx. 50MW Kitahiyama (Hokkaido) Approx. 52MW			
Total in-operation	Approx. 283MW			
Total under construction and development	Approx. <b>462</b> MW*			
Other under-development projects	Арргох. 155мw			
Total onshore sites	Арргох. <b>900</b> МW			

### 2. Establishing systems infrastructure aimed at sophisticating operations and maintenance

At Cosmo Eco Power, we have been moving forward with the introduction of an EAM (Enterprise Asset Management) system as a means of sophisticating our operations and maintenance (O&M) practices. The introduction of the EAM system enables effective management of inspections, work, malfunction information, and parts inventory, while facilitating analysis linked to operating data. We have achieved certain successes, such as early detection of and recovery from malfunctions, which has helped us maintain one of the industry's top availability rates. The rollout of the system to our key sites is now complete, and we are considering adopting it as a standard feature at newly developed power plants. Cosmo Eco Power is committed to promoting data utilization to further increase our industry-leading availability rates.

#### Aggregation and organization of data for utilization in various scenarios



#### Offshore wind power generation business

In the field of offshore wind power, we commenced operations of the Akita Port and Noshiro Port offshore wind farms (Aomori Prefecture, installed capacity 140MW\*) in January 2023. For offshore wind power generation projects awarded through public tenders, we are preparing for operator selection from among sea areas designated as promotion areas and promising zones. We will continue to collaborate with reliable partners in these efforts, leveraging Cosmo Eco Power's strengths in wind turbine maintenance and coordinating with local communities, as well as proposals on regional and national promotion measures that make use of the Group's resources.

\*Total installed capacity of the project

#### COSMO REPORT 2024

# Foundation

Special Interview: Human Resource Transformation at the Cosmo Energy Group · · · · · · · · · · · · · · · · · · ·
Message from the Executive Officer in Charge of
Initiatives to Promote Sustainability (Sustainability Governance) ••• 50
Material Issues of the Cosmo Energy Group ••••••••51
KPIs and Results for Material Issues in the Seventh Consolidated
Medium-Term Management Plan ••••••••••••••••
Climate Change Countermeasures · · · · · · · · · · · · · · · · · · ·
Provision of Clean Energy, Products, and Services
Promoting Human Resources' Success, Health, and Job Satisfaction 59
Human Rights · · · · · · · · · · · · · · · · · · ·
Commitment to Compliance and Sharing of Philosophy and Values 66
Strengthening Group Risk Management · · · · · · · · · · · · · · · · 67
Digital Transformation (DX) · · · · · · · · · · · · · · · · · · ·
Safe Operations and Stable Supply · · · · · · · · · · · · · · · · 71
Biodiversity Initiatives · · · · · · · · · · · · · · · · · · ·
Message from the Chairperson of the Board of Directors · · · 73
Overview of Corporate Governance
Board of Directors · · · · · · · · · · · · · · · · · · ·
Message from the Chairperson, Nomination and Remuneration Committee
Nomination and Romunoration Committee
For surface Demonstration Plan
Directors and Executive Officers • • • • • • • • • • • • • • • • • • 81
Skills Matrix · · · · · · · · · · · · · · · · · · ·



### Special Interview: Human Resource Transformation at the Cosmo Energy Group



### Junko Takeda

Director, Senior Executive Officer In charge of Human Resource Dept., Business Portfolio Management Dept., and Sustainability Initiative Dept.

### Motohiro Morishima

Professor, Department of Management, Faculty of Economics, Gakushuin University Professor Emeritus, Hitotsubashi University

After completing a doctoral program and earning a Ph.D. in Human Resource Management from the School of Labor and Employment Relations at the University of Illinois, Morishima took up a position as an assistant professor at the Faculty of Business at Simon Fraser University, Canada. He then worked as an associate professor at the Faculty of Policy Management, Keio University, and later as an associate professor and professor at the university's Graduate School of Business Administration. He also worked as a professor at the Graduate School of Commerce and Management, Hitotsubashi University, before assuming his current position in 2017. Morishima also serves concurrently as a member of the Ministry of Health, Labour and Welfare's Labour Policy Council and a public interest member of the Central Labour Relations Commission, among other roles. He was appointed as professor emeritus at Hitotsubashi University in 2020. His publications include Introduction to Human Resource Management, The Complex Algorithm of Human Resources, Turning Everyone into a Strategic Resource: Overcoming the Shortage of Strategic Human Resources and Developing Organizational Capabilities, and Challenges to Human Resource Investment: Dilemmas and Solutions (co-author) (all published by Nikkei Publishing Inc.), and A Dialogue between HR and Legal: Toward a New Fusion, (co-author; published by Yuhikaku Publishing Co., Ltd.).

### Changes in the environment surrounding the Cosmo Energy Group

Takeda As evidenced by the global trend toward decarbonization and the Japanese government's 2050 Carbon Neutral Declaration, the decarbonization of transportation fuels and other types of energy is expected to continue as demand for petroleum products tapers off. Under our Group's Vision 2030, we aim to increase profitability by strengthening the competitiveness of our Oil Business, while simultaneously investing in New fields, namely next-generation and low-carbon businesses, as we seek to develop core businesses that will sustain us in the future. To respond flexibly to rapidly changing times and to drive the energy transition that will continue from here on in, we have formulated a roadmap to maximize enterprise value over the medium to long term.

In this period of industry transformation, our Group is pursuing a people strategy that we refer to as human resource transformation (HRX). This strategy involves cultivating human resources with diverse ideas, who continually challenge themselves, and act autonomously, so that we can venture into new business fields while transforming existing ones.

Today, I'd like to hear your expert and objective opinion on our Group's people strategy.

Morishima Listening to you talk about your company's situation, I get the impression that you've taken on a very challenging mission. While you have established businesses that serve as solid revenue drivers, you also have to take on new challenges looking ahead to the medium to long term. I find it very interesting to see how you are Special Interview: Human Resource Transformation at the Cosmo Energy Group

attempting to transform your workforce, which will be responsible for your company's growth, during such a challenging time.

- Takeda Vision 2030 was formulated as a means to consider our future while carefully honing our existing businesses centered on oil. Our Group's mission is to continue to ensure safe operations and stable supply in order to meet energy demand and reliably fulfill our supply responsibilities. At the same time, we must look ahead and address the energy transition that is currently underway, including the shift to decarbonization, renewables, and next-generation energy. Because the energy business has a long lifecycle, we need to undertake medium- to long-term initiatives while fulfilling the mission that is required of us now.
- Morishima The direction of your business structure transformation and the time frame for achieving it will be key components of your management strategy. I think it's also crucial that you clearly present these elements in Vision 2030, as your employees will also want to know about your management approach in this regard.



## Transformation keywords and diversity initiatives

TakedaThe knowledge and expertise we have built up<br/>through our *Oil* Business is a tremendous asset<br/>for our Group as we work towards realizing Vision<br/>2030. For example, the mass production of SAF<br/>and our entry into the hydrogen supply chain are<br/>next-generation energy initiatives that leverage<br/>our existing *Oil* Business expertise.

To draw on the knowledge and expertise of our existing businesses to create new value, we are encouraging a shift in mindsets and behaviors among employees in an effort to further develop the capabilities of those individuals who will drive each business forward. In undertaking transformation, the four keywords that are central to our company, regardless of business sector, are: Diversity, Pioneering Spirit and Growth Mindset, Autonomy, and DX Literacy. We are also focusing on promoting better health and boosting engagement as the foundation that supports our human resource capabilities with the ultimate goal of improving employee wellbeing.

- **Morishima** Diversity is certainly an important factor when it comes to bringing about innovation.
- TakedaOne of the most important themes in our<br/>Group's HRX is diversity and inclusion. As a result<br/>of our proactive recruitment activities, human<br/>resource development, and the appointment of<br/>people based on their abilities, the proportion of<br/>women in managerial positions is steadily<br/>increasing. In the oil wholesale sector, where the<br/>percentage of female employees is low to begin<br/>with, I believe that such results are due to the

fact that the senior management team takes the initiative in promoting women's participation in the workplace, with the human resources division following their lead.

Morishima Nowadays, I hear that it's not easy to promote the active participation of women in the workplace, regardless of the company, partly due to the lack of human resources from the generation that will play a central role in managing the company going forward.

> While ensuring sufficient personnel numbers is a challenge, the mentality of management doesn't change even when training is provided, and there are cases where the active participation of women is unintentionally inhibited. That's why I believe it's extremely meaningful for senior management teams to lead efforts that empower women. From a diversity perspective, it's also important to secure mid-career hires; how is your company performing in this regard?

Takeda

In FY2023, the number of mid-career hires increased to almost the same level as the number of new graduate hires, with around 70 mid-career hires compared to about 80 new graduate hires. This is a significant change for our Group, which has traditionally focused on recruiting new graduates.

In particular, as the corporate divisions that support our operating companies require a high level of expertise, we're actively recruiting midcareer hires. Many of the individuals we hire hit the ground running from day one, providing a good source of motivation for employees who have been with us since the beginning of their careers.

Takeda

Special Interview: Human Resource Transformation at the Cosmo Energy Group

- Morishima The key to the continuous success of mid-career hires is a long-term career path. While such hires are highly motivated to solve the challenges faced by the workplace they've joined, they also have their own future careers to consider. Therefore, it's important to have a mechanism to present employees with not just one, but multiples career paths, to expand their potential.
- TakedaAs you mentioned, there are also some mid-<br/>career hires who want to develop their current<br/>expertise, while others may be interested in<br/>exploring different types of work if the<br/>opportunity arises. We're also working to provide<br/>individual employees with the opportunity to<br/>autonomously think about their career through<br/>the career declaration system and other initiatives.
- Morishima Adding to what you just said, ensuring that mid-career hires and experienced personnel are a good cultural fit is also an important factor in retention. It's critical for companies to provide organizational support to ensure that the values of employees are aligned with those of the company and that employees can carve out long-term career paths.

## The stacking of small innovations serves as a source of competitiveness

TakedaThe value most deeply ingrained in employees<br/>involved in our Oil Business and consistently<br/>upheld over the years is a commitment to safe<br/>operations and stable supply. The LPG tank<br/>explosion at the Chiba Refinery following the<br/>Great East Japan Earthquake caused great<br/>concern and inconvenience to many people. We<br/>also continued to experience challenging times

in terms of business performance, and I once again acutely felt the importance of safe operations and stable supply, as well as the seriousness of our Group's social responsibilities. On the other hand, the *Oil* Business, with its well-established business model, has few opportunities to experience major innovation or business structure transformation, and there are times when I sense the difficulty of changing the way employees in this business view innovation.

Morishima There are many companies out there, including those in the energy industry, that position "safety" as the foundation of their operations. If operations are organized in such a way that improvements and innovation are stacked on a foundation of safety, then I think that companies like yours, which are responsible for social infrastructure, will find it easy to accept this concept. What's important is whether that kind of mindset has trickled down to employees who work on the frontline.

While it's easy to say that they should value a foundation of safety and then make improvements and innovations on top of that, there are challenges when it comes to ensuring that everyone fully understands this concept and can put it into practice.

I believe that the idea of stacking improvements and innovations on top of safety is highly compatible with our Group. Since the fire caused by the explosion at the Chiba Refinery, we've worked to address both infrastructure and systemic issues, and as a result, the operating rate at our Group's refineries has reached over 90%, well above the industry average. I believe that this is due to our diligent efforts to eliminate perceived risks one by one through safety-driven improvement activities.



In order to achieve even more efficient operations, DX initiatives are needed to complement the experience and skills that our refinery employees have built up over the years, in addition to improvements made through the thorough application of our Operations Management System (OMS). Our refineries are working in cooperation with the Corporate DX Strategy Dept., our in-house DX division, to enhance DX literacy\*.

\*For further information on Increasing DX Literacy, please refer to Page 70.

Morishima In the past, factory and facility operations often relied on the experience and intuition of highly skilled employees. However, the use of IoT and AI now makes it possible to improve operational efficiency while ensuring safety. I think this constitutes an innovation that goes beyond the scope of improvement initiatives.

> Japanese companies have historically strengthened their competitiveness through a series of small innovations. While the spotlight tends to be on major innovations and business structure transformations, I believe that the ability

#### Special Interview: Human Resource Transformation at the Cosmo Energy Group



to build upon these small innovations also serves a source of competitiveness for many companies.

- TakedaFrom that point of view, our sales and marketing<br/>frontlines are where small innovations are<br/>continuously accumulated through customer<br/>engagement. Looking back, we were the first<br/>company to use credit cards as part of our<br/>marketing efforts, which in turn became a<br/>significant strength. We're also currently taking<br/>on the challenge of working with partners across<br/>different industries, making use of our extensive<br/>customer data.
- Morishima It might be worthwhile to focus on shifting employees' mindsets by uncovering and reevaluating past examples of innovation, no matter how big or how small, and sharing them internally.

## Thoughts behind our human resources requirements: Challenge, Nurture, and Excel

we newly formulated the Cosmo Human Resource Requirements in FY2023. On the topic of innovation, which we just discussed, we included the word "Challenge" in the hope that our employees will further challenge themselves. The word "Nurture" expresses our desire to increase the number of employees who can autonomously shape their careers and continuously and proactively learn, thereby contributing to the growth of the Company. In a world where the external environment is changing dramatically, it's also essential for employees to "Excel" and hone their expertise to withstand changes. We've formulated policies based around these three keywords, and are implementing initiatives and communicating them with the goal of changing the behavior of our employees.

- Morishima What's interesting is that these three elements are interconnected as a set. There are many companies that encourage employees to take on new challenges (Challenge), but I think it's wonderful that your company has incorporated the notions of growth (Nurture) and expertise (Excel) into your human resource requirements, conveying a message that encourages employees to think about their own futures. By integrating these three elements, your company fosters a culture where the value created by human resources directly contributes to building enterprise value.
- Takeda Both employees who continually take on challenges through involvement in large projects and those engaged in stable work are



indispensable to the Company. Even in the work carried out by the latter, there are always small challenges, and these challenges will surely manifest themselves as value.

I mentioned "Challenge" as an example, but I believe that having all employees be mindful of our human resource requirements will lead to the growth of employees themselves and, in turn, the growth of the Company. Therefore, I believe that all three elements are important and indispensable, forming a trinity of requirements.

Morishima There are two main points to consider when trying to get your human resource policies and initiatives across to employees. The first is to make sure that the senior management team explains them in their own words, and the second is to make sure that you give credit for the actions that employees take. This is what is known as "recognition."

I believe that recognizing employees for their actions as a company is paramount to ensuring that policies and initiatives are understood by frontline workers.

Furthermore, the extent to which mid-level managers—who act as intermediaries between management and frontline workers—embrace the ideas and take the lead in implementing them based on information from senior management will significantly influence whether the policies reach and are adopted at the operational level.

Our senior management team is doing exactly that, communicating our policies and initiatives directly, and we have incorporated this very idea not only into training workshops and other events organized by our Human Resource Dept., but also into our branding activities. Moreover, from FY2024, we have revised the behavioral

Takeda

Special Interview: Human Resource Transformation at the Cosmo Energy Group

evaluation criteria in our objective-based evaluation system so that performance evaluations are carried out based on the Cosmo Human Resource Requirements. We're engaged in ongoing and diligent awareness-raising activities so that our human resource requirements become deeply embedded our corporate culture.

Since my tenure as General Manager of the Human Resource Dept., I've observed that the duties of mid-level managers, such as line managers, have grown significantly in both scope and volume. To broaden their perspective and encourage them to take the initiative, I believe the Company must provide robust support—not only in implementing policies and initiatives but also in reevaluating their roles and promoting greater flexibility in how they work.

In periods of VUCA\*, the challenge for human

resource divisions is to envision the type of

## Development of human resource data utilization platforms

Takeda

Morishima As you mentioned, various internal factors inevitably influence the outcomes of specific KPIs. I believe that gathering and analyzing information, and clearly communicating what's happening to external stakeholders, will become an increasingly important role that human resource divisions will be expected to fulfill in the future.

TakedaSince FY2023, we've also been developing human<br/>resource-related data utilization platforms.<br/>Previously, personnel information was largely<br/>analog—qualitative insights that existed only in<br/>the minds of human resources staff—which made<br/>it difficult to analyze and share.

While such data is still necessary, it's crucial to capture and analyze information from each employee as data and use it to shape future initiatives as we drive transformation under our people strategy. I believe that these data utilization platforms are also vital for ensuring the accountability of our human resource division.

## Current challenges in HRX and future directions

workforce needed in the future, both in terms of quality and quantity, and to strategize how to attract and retain such talent. Since people are at the heart of these efforts, it's impossible to predict every outcome or implement initiatives strictly according to plan. However, we're focused on enhancing our employees' skills through human resource development programs, while closely tracking progress using KPIs. I believe that merely monitoring KPI figures is not enough; it's also crucial to pay attention to shifts in the figures and understand the underlying factors driving those changes.

\*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. Even amid dramatic changes in the business environment, both the Company and our employees must continue to grow in order to sustainably enhance enterprise value. For this reason, it's vital that we foster an environment that encourages employees to proactively embrace new challenges.

While there's no one-size-fits-all solution, we're committed to providing opportunities for employees to realize their personal growth through the tasks they carry out today. We'll also continue to emphasize our desire for employees to take a self-directed, proactive approach to their work.

### Morishima The people who work at your company are all individuals with their own hearts and minds. If their heart's not in it, they can't adequately demonstrate their value as human resources. Increasing engagement and reforming mindsets takes time and effort. It also requires investment. But from what I've heard today, I can see that your company is dedicating considerable

resources to your people strategy.

Takeda

In formulating our people strategy, we've consistently asked ourselves what it will take to change the mindsets and behaviors of those who work for our Group. As I continue to think about how to appeal to people's hearts beyond the period of the Seventh MTMP, I'm reminded that we can motivate employees and harness their skills.

As the Officer in charge of Human Resources, I'm committed to advancing our HRX initiatives and working to enhance enterprise value so that the growth of each and every employee becomes the driving force behind our business activities and, in turn, leads to our growth as a company.



Strategy

### Message from the Executive Officer in Charge of Sustainability



We aim to enhance enterprise value by pursuing sustainable management through the three key transformations and developing sustainably in partnership with society.

#### Junko Takeda

Director, Senior Executive Officer In charge of Human Resource Dept., Business Portfolio Management Dept., and Sustainability Initiative Dept.

## Sustainable management to realize our Group Management Vision

As the global landscape continues to undergo a major shift, environmental issues such as climate change, along with various societal challenges, are becoming increasingly severe. Addressing these challenges requires greater efforts from governments, societies, and individuals alike. I believe that the responsibility of corporations like ours, which drive economic activities, is growing ever larger. For more than 20 years, the Cosmo Energy Group has placed sustainability at the core of its business operations, as stated in our Group Management Vision, and we have a long history of promoting environmentally-focused management. The pursuit of sustainable value enhancement and development based on this management vision represents the cornerstone of sustainability at the Cosmo Energy Group.

On the other hand, as the world is changing rapidly, we too must evolve. While our Group Management Vision remains constant, the means to realize it must be adapted flexibly. To this end, the Sustainability Strategy Committee, chaired by the Group CEO, held seven meetings in FY2023, and has steadily promoted sustainable management by discussing a wide range of topics, from the latest issues such as climate change and biodiversity to the reevaluation of our internal control system.

## Addressing material issues to fulfill Vision 2030

In the Sixth MTMP, we established our vision for material issues and, backcasting from this vision, set KPIs for both the long-term and the period of the plan, and built a system to implement the PDCA cycle. We also evolved our sustainable management practices, such as linking ESG assessments to executive remuneration.

In the Seventh Consolidated Medium-Term Management Plan (hereafter, "the Seventh MTMP"), which concludes in FY2025, we have defined three key themes for transforming our management foundation: Human Resources Transformation (HRX), Digital Transformation (DX), and Green Transformation (GX). These three transformation initiatives align with the material issues we aim to resolve by 2050, and addressing these material issues is directly connected to realizing our vision of how we want the Group to be as defined in Vision 2030.

## Initiatives undertaken as part of the three transformations

For each of the three transformations set forth as themes in the Seventh MTMP, we have established specific goals as part of our efforts to transform our management foundation.

First, regarding GX, we recognize climate change as one of our most important material issues as a company that handles

fossil fuels. In May 2021, our Group announced our Carbon Net Zero Declaration, committing to achieving net zero greenhouse gas emissions from our business operations by 2050. With the announcement of the Seventh MTMP, we expanded this commitment to include our supply chain, aiming for net zero carbon emissions, including Scope 3 as well. As part of our GX strategy under the Seventh MTMP, we are also measuring how our business operations contribute to decarbonization on a societal level. As a Group, we will continue to work together toward achieving net zero carbon emissions. (See (Pages 53-58) for details)

In addition, investment in human resources is essential for executing sustainable management. As Chief Human Resource Officer (CHRO), I oversee the human resource division, and as part of our HRX initiatives, we are pursuing a people strategy that motivates employees and harnesses their skills in an effort to cultivate human resources who can help us realize Vision 2030. To enhance enterprise value, we are focused on strengthening the capabilities of individual employees and maximize performance by increasing employee engagement, while also prioritizing health and productivity management, which serves as the foundation for everything. (See (Pages 59-63) for details)

In the area of DX, we are establishing a DX promotion foundation to strengthen competitiveness and create new value, while also cultivating digital talent. We have defined the development of core digital personnel, who will drive Cosmo's DX efforts, as a KPI, and are actively undertaking various initiatives to achieve this end. (See Pages 69-70) for details)

### **Engagement with stakeholders**

In 2022 and 2023, we worked to engage in active dialogue with our investors and disclose information in the area of sustainability through measures such as our ESG Presentation. In these times of increasing uncertainty, I believe that sustainable management is a vital practice to boost management resilience. We are committed to meeting your expectations by working for the sustainable growth 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 Governance)

### Promotion structure

Aiming to realize our Group Management Vision, the Company has established a Sustainability Strategy Committee and a Sustainability Committee as key organizational structures to oversee sustainability and internal control-related activities. The Sustainability Strategy Committee undertakes 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 FY2023, the Sustainability Strategy Committee met a total of seven times and discussed 15 agenda items, of which seven were reported to the Board of Directors for deliberation and further discussion. When necessary, the matters discussed by the Sustainability Strategy Committee are shared with Group companies through the Sustainability Liaison Committee.

Moreover, the evaluation of efforts to achieve ESG targets has been reflected in executive remuneration since FY2022 as directors and executive officers work to ensure sustainable management. In addition, 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 alignment across all Group companies.

\*For information on core operating companies and semi-core operating companies, please refer to Report Scope in the Corporate Data section on Page 86



### Governance system driving sustainability



### PDCA cycle

We have defined KPIs for each of the material issues we have identified, setting annual targets and reporting progress to both the Sustainability Strategy Committee and the Board of Directors every six months. The details of reports are then relayed back to Group companies through the Sustainability Liaison Committee, ensuring effective implementation of the PDCA cycle.

#### KPI review cycle



### Information disclosure: ESG assessments

The Company has been included in the FTSE4 Good Index Series, one of the world's leading ESG investment indices, for 22 consecutive years since we became the first Japanese oil company to be included in the index in 2003. Furthermore, for eight consecutive years, we have been a constituent of the FTSE Blossom Japan Index, which has been adopted by the Government Pension Investment Fund (GPIF) as an ESG investment index.

In addition to FTSE indices, in 2024, the Company was included in the Empowering Women Select Index (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. Furthermore, we have been selected as a constituent of SOMPO Asset Management Co., Ltd.'s SOMPO Sustainability Index, which was independently established by combining ESG assessments and stock valuations, for eight consecutive years\*.

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



### FTSE4Good



**FTSE Blossom** Sompo Sustainability Index Japan Sector **Relative Index** 

### 2024 CONSTITUENT MSCI JAPAN **EMPOWERING WOMEN INDEX (WIN)**

Our inclusion in an MSCI index and the use of the MSCI logo, trademark, service mark, or index name does not constitute sponsorship, endorsement, or promotion of our company by MSCI or its affiliated companies. MSCI is the sole owner of MSCI indices. MSCI index names and logos are trademarks or service marks of MSCI or its affiliated companies.

### Material Issues of the Cosmo Energy Group

### Material issue identification process

The Cosmo Energy Group has identified eight 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 work towards building the society we envision in 2050. These issues were identified through the following process. The Group has set KPIs for each material issue and is undertaking activities to resolve them.

#### Material issue identification process



### Most important material issues

With regard to material issues for sustainable value creation, we will work to achieve the goals set forth 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.



#### Materiality matrix



Level of importance for the Group

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

N	laterial issues	Vision for the future	Main KPIs	FY2023 results	Related SDGs
ole	Climate change countermeasures Pages 53–56	<ul> <li>GHG emissions are managed appropriately</li> <li>Progress is steadily being made toward achieving net zero carbon emissions by 2050</li> </ul>	<ul> <li>≥30% reduction in GHG emissions by 2030 (vs. FY2013)</li> <li>CO<sub>2</sub> emissions reduction (Scope 1, 2) (vs. FY2013)</li> <li>CO<sub>2</sub> reduction contribution</li> </ul>	<ul> <li>15% reduction</li> <li>950,000-ton CO<sub>2</sub> reduction</li> <li>480,000-ton CO<sub>2</sub> reduction contribution</li> </ul>	12 and a set of the se
· sustaina Ition	Provision of clean energy, products,	<ul> <li>Clean fuel that meets customer needs has been developed and is supplied</li> <li>We have become a leading company in domestic renewable energy generation</li> </ul>	• Clean fuel supplied (amount of bio-ETBE/SAF (used cooking oil) supplied)	<ul> <li>Bio-ETBE supplied: 297,000 kL</li> <li>Used cooking oil-derived SAF supplied: Construction of facility is underway toward production of approximately 30,000 kL per year by FY2025</li> </ul>	7 mmm 2 mmmm 2 mmm 2 mmmm 2 mmm 2 mmmmm 2 mmm 2 mmmm 2 mmm 2 mmm 2 mmmm 2 mmm 2 mmm 2 mmmm 2 mmmmm 2 mmmmm 2 mmmmmm 2 mmmmmmmmmm
for	and services	<ul> <li>Clean products have been developed and are being provided across the entire value chain</li> </ul>	<ul> <li>Wind power generation facility capacity</li> <li>Other renewable energy generation facility capacity</li> </ul>	Wind power generation facility capacity (March 31, 2024): 295MW     Other renewable energy businesses are under consideration	14 #0# webs
al issues value o	Pages 57–58	<ul> <li>lechnologies and services that support low carbonization and decarbonization have been developed and are being supplied</li> </ul>	Amount of next-generation raw materials supplied     Sales excluding fossil fuels     R&D expenses and investments in new businesses	R&D related to next-generation raw materials and new businesses     is ongoing	
Materia	Structural reform of profitmaking businesses Page 57	<ul> <li>Business profits are generated in a decarbonized society by investing profits from existing businesses in new businesses</li> <li>Enterprise value is being enhanced through new businesses centered on clean technology</li> </ul>	• Investment in New businesses	<ul> <li>Invested ¥19.5 billion in New fields in FY2023</li> <li>*Before factoring in sales of assets (¥16.5 billion)</li> </ul>	8 Materia
	Promoting human	<ul> <li>All employees can demonstrate their abilities to the fullest, regardless of age, gender, nationality, job type, affiliation, or work history</li> <li>Decisions are made through dynamic discussions that incorporate diverse opinions</li> </ul>	<ul> <li>Proportion of women in managerial roles (FY2025): ≥10%</li> <li>Percentage of women graduates among total new graduate hires: ≥50%</li> </ul>	<ul> <li>Proportion of women in managerial roles (as of April 1, 2024): 7.1%</li> <li>Percentage of women graduates among total new graduate hires (including those who joined the Company in April 2024): 53%</li> </ul>	
- -	resources' success, health, and job satisfaction	<ul> <li>Overwork and harassment are prevented, and employees can work healthily and with peace of mind</li> <li>Employees take the lead in managing their own physical and mental healthcare, and make efforts to manage and improve their health</li> </ul>	<ul> <li>Percentage of employees who have taken a stress check (mental health)</li> <li>Percentage of employees who have received lifestyle health guidance (physical health)</li> </ul>	<ul> <li>98.7% of employees took a stress check</li> <li>Health-focused initiatives to increase the percentage of employees who have received lifestyle health guidance are being implemented</li> </ul>	3 metres →→→ 8 metres 8 metres 10 metres ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
0 C	Pages 59-63	<ul> <li>Employees autonomously improve and utilize their strengths and expertise to implement business strategies</li> </ul>	<ul> <li>Investment in employee education and training</li> </ul>	• Annual training cost: ¥130,000 per person	••••
iness		<ul> <li>Employees are energetic and challenge themselves, and enjoy continuous growth with job satisfaction and fulfillment</li> </ul>	<ul> <li>Employee awareness survey "work satisfaction/pride" score: ≥60 points</li> </ul>	• Employee awareness survey score: 60 points	
sno	Commitment to		Number of compliance violations	Number of serious compliance violations: 0	
oundation of	compliance and sharing of philosophy and values Page 66	<ul> <li>Laws, regulations, and social norms are observed</li> <li>Officers, employees, and other staff members understand and observe the Group Management Vision, policies, and internal regulations</li> <li>The Cosmo Energy Group Code of Conduct and policies are widely understood and individuals are able to make appropriate decisions</li> </ul>	<ul> <li>Employee awareness survey scores</li> <li>Compliance education: ≥83%</li> <li>Awareness of consultation helplines: ≥94%</li> <li>Understanding of Code of Conduct: ≥72%</li> </ul>	<ul> <li>Employee awareness survey scores</li> <li>Compliance education: 82%</li> <li>Awareness of consultation helplines: 94%</li> <li>Understanding of Code of Conduct: 74%</li> </ul>	8 mmm 12 mm 13 mm 14 mm 15 mm 16 mm 16 mm 16 mm 16 mm 16 mm 16 mm 16 mm 18 mm 18 mm 18 mm 19 mm 19 mm 19 mm 10
lat form the f	Strengthening of Group risk management Pages 67-68	<ul> <li>Both the Company's operational risks and strategic risks (including opportunities) have been identified, and risks are appropriately hedged or leveraged</li> <li>Serious risks for the entire Group are understood and managed</li> </ul>	<ul> <li>Risks associated with CEG priority initiatives are monitored</li> <li>Risks associated with priority initiatives undertaken by each company are monitored</li> </ul>	<ul> <li>Risks associated with CEG priority initiatives and priority initiatives undertaken by each company have been identified, and a risk mitigation plan and its implementation are being evaluated</li> <li>ERM structure and approach development policy have been decided</li> </ul>	
erial issues th	Digital transformation (DX) Pages 69-70	<ul> <li>A corporate culture embracing digital technology is being cultivated to transform work processes and drive continuous innovation for business transformation</li> <li>Efforts are being made to improve internal and external CX (customer experience) by delivering data-driven solutions that address challenges for both customers and employees</li> </ul>	• Cultivation of core digital personnel (FY2025): $\geq$ 900 people	<ul> <li>389 core digital personnel developed</li> <li>We are currently promoting a change in mindset toward DX through initiatives such as classroom-based training, data utilization in work, sharing case studies across organizations, and communication with each division, with the aim of developing human resources.</li> </ul>	
Mat	Safe operations and stable supply Page 71	<ul> <li>Employee injuries are prevented</li> <li>Plant accidents and product (quality) accidents are prevented</li> <li>Operations are carried out so they do not threaten the safety of the operating area and surrounding residents</li> <li>Energy supply remains stable and reliable, even during disasters and emergencies, etc.</li> </ul>	<ul> <li>Number of work-related accidents</li> <li>Number of accidents</li> <li>Number of accidents with an impact on the environment</li> <li>Supply and sales structure during disasters and emergencies: Up and running again within 24 hours</li> </ul>	<ul> <li>Number of major work-related injuries: 0</li> <li>Number of major accidents: 2</li> <li>Number of major accidents with an impact on the environment: 0</li> <li>BCP activation: N/A</li> </ul>	

#### COSMO ENERGY HOLDINGS 53

Material issues for sustainable value creation						
Climate change countermeasures	Provision of clean energy, products, and services Structural reform of profitmaking businesses					
Material	issues that form the f	foundation of bus	iness contin	uity		
Promoting human resources 2 scalar of the standard standa						

### Climate Change Countermeasures

With global attention on reducing greenhouse gases (GHG), the Cosmo Energy Group is striving to reduce GHG emissions, and has announced its 2050 Carbon Net Zero Declaration. In this section, we introduce our environmental initiatives and activities, including energy conservation efforts.

\*Our Group reports Scope 1 and Scope 2 GHG emissions and reductions.

### **GHG** emission targets and reductions



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

### **Roadmap for Achieving Net Zero Carbon**

The Cosmo Energy Group has developed a roadmap summarizing the key themes and processes we will focus on to achieve our goal of net zero carbon emissions by 2050. As a priority initiative, we are focusing not only on direct reductions through energy conservation and fuel conversion but also on utilizing negative emission technologies, green electricity, and new technologies in the form of next-generation energy. At the same time, stable energy supply has become increasingly important due to rising geopolitical risks and other factors. As an energy company, our primary responsibility is to provide a stable supply of energy that supports society, while striking a balance with our decarbonization efforts.

For this reason, we will maintain our goal of achieving net zero carbon emissions by 2050 and will steadily advance measures to ensure that we fulfill our responsibility to offer a stable supply even during the transition period.

Additionally, we recognize the need to rethink our roadmap, including making adjustments to target values, in response to changes in the external environment and advancements in technology. We are working to update it in line with evolving policy trends and other factors.

### Efforts to reduce greenhouse gas emissions

The Cosmo Energy Group has always positioned the reduction of GHG emissions as an important issue and we have been working to reduce  $CO_2$  emissions throughout the supply chain. In FY2023, the first year of the Seventh Consolidated Medium-Term Management Plan, actual GHG emissions (Scopes 1 and 2) amounted to 7.11 million tons of  $CO_2$ , an 11.8% reduction compared to FY2013 (direct  $CO_2$  reduction of 950,000 tons). This was the result of increased efficiency of our manufacturing division (improved energy consumption intensity) and a decrease in crude oil processing due to regular maintenance.

Furthermore, as part of green transformation (GX), one of the management foundation transformation themes set forth in the Seventh MTMP, we are working towards our goal of reducing GHG emissions by 30% by 2030 compared to FY2013 (including Scopes 1 and 2, and reduction contributions). In FY2023, we achieved a 15% reduction compared to FY2013, which includes contributions from biofuels and renewable energy, resulting in a total CO<sub>2</sub> reduction of 480,000 tons.

#### Cosmo Energy Group's CO<sub>2</sub> emissions<sup>1</sup>

(Unit: 10,000 tons of CO<sub>2</sub>)

	FY2013	FY2021	FY2022	FY2023
Scope 1	774	769	729	689
Scope 2 <sup>2</sup>	32	24	24	22
Scope 1 & 2 total	806	793	753	711
Scope 3 <sup>3</sup>	8,197	-	7,320	7,605

Total Group reduction contribution <sup>4</sup> (Unit: 10,000 tons of C					
	FY2013	FY2021	FY2022	FY2023	
Avoided emissions	-23	-43	-4	4 -48	

1 Scope of data coverage: A total of 43 companies, including Cosmo Energy Holdings Co., Ltd. and its consolidated subsidiaries (Cosmo Oil, Cosmo Oil Marketing, Cosmo Energy Exploration & Production, Maruzen Petrochemical, etc., as well as subsidiaries and affiliated companies). In addition, the CO<sub>2</sub> emission intensity used for calculation was reviewed in FY2023. 2 Calculated value of market-base emissions

3 A review of calculation categories was conducted, with retrospective calculation for all categories in FY2013 and FY2022. 4 The total  $CO_2$  reduction contribution from biofuels (avoided  $CO_2$  emissions attributable to ETBE-blended gasoline) and renewable energy (avoided  $CO_2$  emissions based on total wind power sales × emission factor for each fiscal year (national average)).

Cosmo Energy Group Greenhouse Gas Emissions https://www.cosmo-energy.co.jp/en/sustainability/esqdb/data-e.html#anchor\_01

Mission	Strategy	Foundation	Data	COSMO ENERGY HOLDINGS 54
Climate Change Countermea	asures			Material issues for sustainable value creation           Climate change countermeasures         Provision of clean energy, products, and services         Structural reform of profitmaking businesses
				Strengthening of commitment to compliance and values         Strengthening of Group risk management         Digital transformation of build transformation of the supply         Safe of the supply

### **Energy conservation at refineries**

In FY2023, energy consumption intensity improved around 2% year-on-year due to the promotion of energy conservation activities, such as optimizing the operation of utility equipment.  $CO_2$  emissions, meanwhile, decreased by approximately 10% year-on-year due to the decrease in equipment operation associated with regular maintenance and other events. We will continue to strive to conserve energy both by utilizing highefficiency equipment and pursuing energyefficient operations.

## GHG emissions at refineries and GHG emissions per unit of crude oil equivalent throughput



### Initiatives related to CCS/CCU

The Company is looking into CCS and CCU\* as important initiatives for reducing emissions.

\*CCS: Carbon dioxide Capture and Storage CCU: Carbon dioxide Capture and Utilization

### Initiatives related to Carbon Capture and Storage (CCS)

In October 2023, we initiated joint studies with The Kansai Electric Power Co., Inc., focusing on  $CO_2$  emissions from business sites operated in the Sakai-Senboku area. These studies involve designing a CCS value chain that encompasses the separation and capture, liquefaction and storage of emitted  $CO_2$ , and its subsequent shipment to storage sites, as well as evaluating economic efficiency.

In the same month, we began collaborating with Mitsui O.S.K. Lines, Ltd. on the establishment of a CCS value chain consisting of the separation and capture, transport, and injection and storage of CO<sub>2</sub> emitted from Cosmo Oil's refineries. We are also researching and considering specifications of liquefied CO<sub>2</sub> carriers suitable for the distance from emission sources to the candidate storage sites and estimated ocean transport costs, among other things.

In 2024, we signed a contract with JOGMEC (Japan Organization for Metals and Energy Security) concerning CCS engineering design work in two areas: Southern Offshore of Peninsular Malaysia CCS Project in western Japan and Northern Offshore Peninsular Malaysia CCS Project in the Tokyo Bay coastal area, after winning the bid for contracted research work for JOGMEC's Engineering Design Work for Advanced CCS Projects. This public tender was carried out by JOGMEC based on its policy of supporting exemplary and innovative projects aimed at developing the environment for the launch of CCS projects by 2030.

The Company will undertake engineering design work across a value chain that encompasses the separation and capture, liquefaction and storage, and shipment of  $CO_2$  emitted from each area.

### CCS business conceptual diagram



### Initiatives related to Carbon dioxide Capture and Utilization (CCU)

As an additional measure to reduce  $CO_2$ , we anticipate producing carbon-neutral products, such as synthetic fuels and petrochemical feedstock alternatives, from  $CO_2$  emitted by refineries and other facilities. With this in mind, we are considering producing methanol and ethanol, which can be converted into these products, using chemical and biological conversion technologies.

In October 2023, we signed basic agreements with Toyo Engineering Corporation, which possesses technology that enables direct synthesis of methanol from  $CO_2$ , as well as Sekisui Chemical Co., Ltd. (catalysis) and Toshiba Energy Systems & Solutions Corporation (electrolysis), both of which have  $CO_2$ -to-CO conversion technologies. We are currently investigating the potential for  $CO_2$  reduction, feasibility, investment profitability, and other factors. In addition, we are also exploring biological conversion technologies that use algae and fungi.

Moreover, as part of our efforts in the area of CCU, we are continuing to examine the commercial viability of technology to convert  $CO_2$  into carbon materials without the use of hydrogen, based on a comprehensive partnership agreement between Cosmo Oil and Kyoto University signed in March 2023.

We will start with CCS, which involves separating, capturing, and storing CO<sub>2</sub> emitted from refineries. In the future, we will work to achieve carbon neutrality across the entire supply chain based on the establishment of CCU technologies and demand for carbon-neutral products that utilize CO<sub>2</sub> as feedstock.



Climate Change Countermeasures

Foundation

Data

#### COSMO ENERGY HOLDINGS 55

 
 Material issues for sustainable value creation

 Climate change countermeasures
 Provision of clean energy, products, and services
 Structural reform of profitmaking businesses

 Material issues that form the foundation of business continuity
 Material issues that form the foundation of business continuity
 Safe onparations for promoting human resources' success, health, and provide philosophy and values
 Strengthening of Group risk management
 Digital transformation (DA)
 Safe on parations supply

### Hydrogen station-related initiatives

Iwatani Cosmo Hydrogen Station LLC, a joint venture between Cosmo Oil Marketing and Iwatani Corporation, opened Iwatani Cosmo Hydrogen Station Heiwajima (Ota City, Tokyo) in April 2024. This hydrogen station enables the fast refueling of both small fuel cell vehicles and larger fuel cell trucks, which are expected to become more widespread in the future. In addition, the station is located alongside the Cosmo Oil Marketing-operated Keihin Truck Terminal Heiwajima SS (operated by Kitaseki Co., Ltd.), within the Keihin Truck Terminal run by Japan Motor Terminal Co., Ltd. It is the first hydrogen station in Japan to be installed inside a truck terminal, and its presence at the Keihin Truck Terminal, which handles the largest volume of cargo in the country, plays a vital role as a hub for the domestic adoption of both small and

large fuel cell commercial vehicles (hereafter, "FCCVs").

We are currently constructing a second location at the Iwatani Cosmo Hydrogen Station Ariake Motors Sales Office (tentative name; Koto City, Tokyo). This station will be operated as a station that serves fuel cell buses. Additionally, preparations are also underway for a third location, tentatively named Iwatani Cosmo Hydrogen Station Shinsuna (Koto City, Tokyo).

Through this joint venture, we will continue to consider the construction of hydrogen stations to meet the demand for FCCVs going forward.



Iwatani Cosmo Hydrogen Station Heiwajima



Artist's impression of Iwatani Cosmo Hydrogen Station Ariake Motors Sales Office (tentative name)

### Supporting the OGDC

At COP28<sup>1</sup> in 2023, the Company expressed support for the Oil and Gas Decarbonization Charter (OGDC). OGDC signatories have committed to achieving net-zero operations for Scope 1 and Scope 2 emissions by 2050 at the latest, ending routine flaring<sup>2</sup> (the burning of gas) by 2030, and reducing upstream methane emissions to near zero.

In May 2021, we declared our commitment to achieving our goal of net zero carbon by 2050 and are further stepping up our efforts, including shifting to low-carbon operations in our *Oil* Business. Additionally, in our petroleum development division, we have already established a system to inject associated gas produced alongside crude oil into underground reservoirs, and as a result, we do not engage in routine flaring. Consequently, we have largely achieved near-zero methane emissions into the atmosphere.

Through these efforts, the Group has been able to promptly implement the measures required by the OGDC and will continue to promote carbon neutrality by significantly reducing methane emissions, which have a significant global warming effect.

1 The 28th United Nations Climate Change Conference

2 During the flaring process, trace amounts of methane gas are emitted into the atmosphere.

### Participation in the GX League

The Company has been participating in the GX League since its inception and supports for the GX League Basic Concept, which aims to achieve carbon neutrality by 2050 and help transform society by taking on the challenge of green transformation. It was established as a way for companies aiming to achieve sustainable growth in society, both now and in the future, to collaborate with other like-minded companies.

As part of our GX League activities for FY2023, we participated in the GX Management Promotion Working Group and the Working Group for Consideration of Voluntary Carbon Credit Disclosure.

In light of discussions among GX League signatories and progress in the GX-ETS (GX League's Emissions Trading System), we are actively reevaluating our plan to achieve net zero carbon emissions and exploring better disclosure methods.



Mission	Strategy	Foundation	Data		COSMO ENERG	Y HOLDINGS	5 56
Climate Change Counterme	asures			M Climate change countermeasures	aterial issues for sustainable value Provision of clean energy, products, and	creation services Structural profitmakin	al reform of ng businesses
ICFD				Material is: Promoting human	sues that form the foundation of b Commitment to Strengthening c	usiness continuity	Safe
				health, and job satisfaction	sharing of philosophy and values Group risk management	transformation (DX)	and stable supply

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.

Addressing Climate Change — Support for the TCFD Recommendations

https://www.cosmo-energy.co.jp/en/sustainability/environment/gl-warming/tcfd.html

### Strategy

In line with the TCFD recommendations, the Group performed scenario analyses based on what the world may look like under the 4°C and 1.5°C scenarios. These analyses covered our Petroleum, Petrochemical, and Oil E&P businesses, looking at possible business impacts by 2030, 2040, and 2050.

Regarding predictable climate change risks and opportunities in our business activities, we anticipate changes in the business environment due to external factors and consider their importance based on the climate change risk items in the TCFD recommendations.

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

Item	Туре	Changes in the business environment Expected impact on the Group		Time span	Impact level when risk emerges
	Policies/	Introduction of carbon pricing	Manufacturing cost increase	Medium- to long-term	High
	regulations	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
Transition		Change in energy mix, shift to low-carbon electricity sources	Increased costs due to rising renewable energy prices	Short- to medium-term	High
risks	Industry/ market	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	Changes 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	Chronic	Rising ocean level and tsunamis	namis Increased cost of investment in disaster prevention measures		Low
risks	Acute	Abnormal weather (storm and flood damage)	Increased costs due to typhoon-caused stoppages or breakdowns	Short- to long-term	Medium
	Resource efficiency	Transition to a resource recycling society	Increased demand for products with a low environmental impact Expansion of chemical recycling business	Medium- to long-term	_
	Energy sources	Changes in energy demand due to the move away from fossil fuels	Increased demand for renewable energy (wind power generation business) Increased demand for low-carbon energy	Short- to long-term	_
Opportunities	Products and services	Changes in customer behavior	Growth of EV-related service business, and expansion of car sharing and other new service businesses	Short- to long-term	_
Opportunities	Market	Developments in low-carbon and clean technologies	Expansion of CO <sub>2</sub> emission reduction business due to developments in CCUS technologies Expansion of production capacity associated with an increase in required SAF volume	Medium- to long-term	-
	Destilitererer	Investor assessment	Investment in renewable energy and other businesses	Short- to long-term	-
	Kesilience	Abnormal weather (storm and flood damage)	Reputation among business partners for maintaining a stable supply during disasters	Short- to long-term	

Scope: Oil Exploration and Production, Petroleum Refining and Sales, Electric Power (Renewable Energy, IPP), Petrochemical businesses 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

### Financial impact assessment based on climate change scenarios

In our scenario analyses, we assessed the financial impact under the 4°C and 1.5°C scenarios. For the 4°C scenario, we estimated physical risks due to natural disasters and transition risks due to decreasing demand based on what the world may look like under the 4°C scenario. For the 1.5°C scenario, we estimated transition risk due to decreasing demand and carbon pricing based on what the world may look like under the 1.5°C scenario.

### Financial impact of climate-related risks

						(† Dillion)
Scenario	Risk category	Event	Subject of impact calculation	2030	2040	2050
490	Physical risks	Natural disasters	Increase in costs due to abnormal weather	-0.5	-1.0	-1.5
4°C scenario	Transition risks	Decrease in demand	Decrease in profit due to decrease in demand	-4.0	-11.0	-19.0
1 500	Transition	Decrease in demand	Decrease in profit due to decrease in demand	-9.0	-25.0	-37.0
1.5°C scenario	risks Carbon pricing	Increase in costs due to introduction of carbon pricing	-83.0	-76.0	-52.0	

Natural disasters = (Largest amount of damage from a heavy rain event during the past 5 years × Annual incidence of heavy rain) + (Petroleum and petrochemical insurance premiums × Annual incidence of heavy rain)

Decrease in demand = Estimated ordinary profit in 2030 × Percentage change in demand (refer to percentages in IEA STEPS, APS) Carbon pricing = Scope 1 and 2 emissions for 2030 through 2050 × Carbon price (refer to IEA NZE)

### Governance and risk management

Governance related to climate change is included as part of sustainability strategy governance. Please refer to (Page 50) for details of our governance structure.

Please refer to Pages 67-68 for details of the Group's approach to risk management.

### **Metrics and targets**

The Group announced that we would expand the scope of our Net Zero Carbon Declaration to include supply chain emissions, thereby broadening the goal to include Scope 3 emissions. Accordingly, the Group is investigating initiatives to reduce GHG emissions and ways to achieve them.

Under the Seventh Consolidated Medium-Term Management Plan, we have set a target of reducing Scope 1 and 2 emissions by 30% (or 2 million tons of  $CO_2$ ) compared to FY2013, including the reduction attributable to avoided emissions, as part of Vision 2030.

For details on FY2023 initiatives and assessments, including FY2023 results, please refer to Efforts to Reduce Greenhouse Gas Emissions on (Page 53).

Foundation

Data

#### COSMO ENERGY HOLDINGS 57

 
 Material issues for sustainable value creation

 Climate change countermeasures
 Provision of clean energy, products, and services
 Structural reform of profitmaking businesses

 Material issues that form the foundation of business continuity
 Material issues that form the foundation of business continuity
 Safe

 Promoting human resources success health, and job satisfaction
 Commitment to saring of philosophy and values
 Strengthening of Group risk, management
 Digital transformation (IC)
 Operations and stable supply

### Provision of Clean Energy, Products, and Services

The Cosmo Energy Group aims to contribute to the development and decarbonization of society as a whole by providing energy, products, and services that meet our customers' needs through our commitment to the most important material issue of Provision of clean energy, products, and services.

## Contributing to decarbonization in the aviation sector with SAF, a next-generation aviation fuel

In the aviation industry, the ICAO<sup>1</sup>, at its 2016 general meeting, set the target of "keeping total greenhouse gas (GHG) emissions from international aviation at or below the 2019 level, starting from 2021." In 2022, it further established a long-term goal of "achieving net zero carbon emissions by 2050." At present, the use of SAF<sup>2</sup> is seen as the most promising means of reaching these targets, and it is expected that the oil industry in Japan will be required to supply SAF equivalent to a 5% reduction in GHGs by 2030. This means that roughly 10% of all aviation fuel will need to be replaced with SAF. Japan's Ministry of Economy, Trade and Industry has announced policy support for achieving this target, with the public and private sectors working together to promote the adoption of SAF.

In this environment, the Group has set a 2030 SAF supply target of 300,000 kiloliters per year. In November 2022, we established SAFFIARE SKY ENERGY LLC, a joint venture with JGC

Holdings Corporation and Revo International Inc., to produce SAF from used cooking oil at Cosmo Oil's Sakai Refinery. As Japan's first SAF mass production project, with annual production of about 30,000 kiloliters, construction of a production unit is underway and is on track to be operational before the end of FY2024. We are accelerating efforts to build a domestic SAF supply chain while diversifying raw materials and production processes, etc. One possibility under consideration is production using Alcohol-to-Jet (ATJ) technology, which uses ethanol as feedstock.

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



SAF production facility under construction (photo taken on July 19, 2024)

### **Reduction contribution**

Approximately 70% of the total GHGs emissions across the Group's supply chain are attributable to the use of petroleum products (Scope 3, Category 11). In light of this, in addition to efforts to reduce our own GHG emissions (Scope 1+2), we are also undertaking initiatives to reduce GHG emissions across our supply chain. In terms of efforts that contribute to decarbonization on a societal level, we perform quantitative assessments using reduction contribution, a metric that quantifies the positive impact on the climate.

### Supplying green electricity

Aiming for a combined installed capacity of over 1,500 megawatts from onshore and offshore wind power by 2030, the Group quantitatively assesses the reduction contribution of such wind power generation.

### Supplying clean fuel

The Group has been supplying ethyl tert-butyl ether (ETBE)-blended gasoline to date. As we will begin producing SAF from 2025 in addition to ETBE-blended gasoline under the Seventh MTMP, we quantitatively assess the reduction contribution of both ETBE and SAF supply.

### Reduction contribution results and targets

(10,000 tons of CO<sub>2</sub>)

	FY2023 result	FY2023 target
Reduction attributable to green electricity	27.6	130
Reduction attributable to clean fuel	20.7	40
Total reduction contribution	48.3	170

\*Reduction contribution calculation method: The reduction contribution attributable to green electricity supply is calculated by multiplying total power generation by the estimated CO<sub>2</sub> emissions factor of general electric power in FY2030 (0.25 kg-CO<sup>2</sup>/kWh). The reduction contribution attributable to ETBE supply is calculated using the difference in emission factors between gasoline with and without ETBE added. The reduction contribution attributable to SAF supply is calculated using reduction effect figures based on ICAO standards.

### Material issue: Structural reform of profitmaking businesses

In order to realize our vision for the future, as set forth in Vision 2030, the Group has defined "structural reform of profitmaking businesses" as a material issue. By investing the profits from existing businesses in new ventures, we aim to contribute to a decarbonized society, while also ensuring stable growth of the Group's businesses in an environment that is shifting toward decarbonization. To this end, we have set the amount invested in *New* businesses as a KPI for this material issue, and in the Seventh MTMP, we plan to invest ¥140.0 billion over the three-year period.

#### COSMO ENERGY HOLDINGS 58

 
 Material issues for sustainable value creation

 Climate change countermeasures
 Provision of clean energy, products, and services
 Structural reform of profitmaking businesses

 Material issues that form the foundation of business continuity
 Commitment to sharing of program of sharing of program of satisfaction
 Strengthening of Group risk management
 Digital transformation (DX)
 Safe operations and stuble

#### Provision of clean energy, products, and services

### Bolstering the green electricity supply chain

## Rolling out Cosmo Zero Carbon Solution as a one-stop decarbonization and energy-saving service

Cosmo Oil Marketing offers Cosmo Zero Carbon Solution, a one-stop service that helps corporations and local governments adopt and effectively use renewable energy, electric vehicles (EVs), and so on.

For clients that want to use renewable energy, the Company offers Cosmo Denki (Electricity) Business Green, a service that includes an onsite solar PPA<sup>1</sup>, and the ability to manage surplus electricity with storage batteries and an EMS<sup>2</sup>. To meet EV needs, we offer EV leasing (Cosmo My Car Lease), EV charging station installation, EV car sharing, and other services. Through use of these services, we aim to reduce  $CO_2$  emissions and lower contract power and electricity usage by facilitating the installation of higher efficiency equipment. We are committed to

supporting corporations, local governments, and other entities as they strive to comply with decarbonization regulations and to overcome challenges such as reducing costs through energysaving efforts.

Since launching Cosmo Zero Carbon Solution in September 2021, we have started supplying Cosmo Denki (Electricity) Business Green to numerous ministries and local governments. In February 2023, the cities of Yokosuka and Zushi, Kanagawa Prefecture, not only became Cosmo Denki (Electricity) Business Green customers, they also introduced an EV car sharing service. Furthermore, in April 2024, Cosmo Oil Marketing signed its first comprehensive partnership agreement with Uenohara City, Yamanashi Prefecture, to help it become a zero-carbon city.



Cosmo Zero Carbon Solution service conceptual diagram

1 Onsite Solar Power Purchase Agreement (PPA):

A contract where the equipment installation provider (PPA operator) installs a solar power generation system on the customer's property and the customer purchases the generated electricity.

2 Energy Management System (EMS): A system for optimizing storage battery charging and discharging.

### Sales of Cosmo Denki (Electricity) Green

In response to the recent growing interest in renewable energy, we launched the Cosmo Denki (Electricity) Green electricity plan for individual customers seeking more environmentally friendly electricity in December 2019, offering it to general households. Cosmo Denki (Electricity) Green is a service that helps businesses achieve virtually zero CO<sub>2</sub> emissions by providing added environmental value in the form of non-fossil certificates and other designated renewable energy certificates. Customers purchase such certificates with a value equivalent to or greater than their total annual sales volume and use them in the electricity sales process, thereby receiving proof that all the electricity they use offers environmental value derived from renewable energy sources.

In addition, we offer a range of Cosmo Denki (Electricity) Business Green plans for corporate customers, and as of October 2024, the number of facilities served has grown to 3,000 locations.

Cosmo Denki (Electricity) Business Green includes a plan that uses electricity derived from Cosmo Eco Power-generated wind power or other renewable energy sources and that is compliant with RE100, an international initiative that aims to ensure that 100% of the electric power used by businesses is renewable energy.

### Development of our mobility business to facilitate a shift to EVs

Cosmo Oil Marketing is advancing the creation of new mobility services centered on EVs. As part of its Cosmo My Car Lease service, we began offering an EV maintenance pack to support EVs. Furthermore, to provide comprehensive support for decarbonization, we have also launched the Zero Carbon Plan, which offers a one-stop solution that includes Cosmo Denki (Electricity) Green, EV charging facilities, and an EV maintenance pack, in addition to EV car leasing.

In March 2024, Cosmo Oil Marketing entered into a capital and business alliance with EV Motors Japan Co., Ltd., which develops, manufactures, and sells commercial EVs, and plans to sell electric buses and logistics vehicles in the future.

As we continue to respond to customer needs, we remain committed to developing our existing mobility business with the goal of realizing a carbon emission-free society to achieve further growth and contribute to the environment.

#### COSMO ENERGY HOLDINGS 59



### Promoting Human Resources' Success, Health, and Job Satisfaction

Recognizing human resources as a form of management capital, we aim to maximize their value by establishing the Human Resources Policy\*, which outlines our basic approach to utilizing human resources within the Group. The source of enterprise value creation lies in human resources, and we define the necessary direction for transformation with four key elements: Autonomous and proactive, Growth mindset, Diversity, and DX Literacy. In the energy industry, which is undergoing transformation, we pursue a people strategy that motivates employees and harnesses their skills to ensure that employees grow daily and can fully demonstrate their capabilities. Human Resources Policy https://www.cosmo-energy.co.jp/en/company/policy/human-resources.html

\*Specific measures and targets apply to Cosmo Oil employees.

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

Vision 2030 To create energy that shapes the future, energy that sustains society, and new forms of value



#### HRX progress status



### **People strategy and initiatives**

In Vision 2030, we aim to strengthen the competitiveness of our Oil Business and increase profitability while at the same time investing in next-generation, low-carbon businesses to nurture future core businesses. In this era of rapid change, we are developing a roadmap to maximize enterprise value from a medium- to long-term perspective, enabling us to flexibly respond and promote an energy transition that connects the present to the future.

To simultaneously take on the challenge of entering new business fields and transforming existing ones, we are promoting our people strategy in line with our human resource transformation (HRX) initiative laid out in the Seventh Consolidated Medium-Term Management Plan. This involves forming a diverse and autonomous talent pool that continues to challenge itself, with the goal of fostering growth of both employees and the Company.

In particular, we are focusing on building a pipeline for the development and appointment of women in managerial positions and executive roles to cultivate future managerial talent that will drive business and produce female leaders who will support corporate management. The Human Resource Strategy Committee, Executive Officers' Committee, and Board of Directors continuously monitor progress in the integration of management and people strategies to ensure they are aligned and on the way toward realization.

### (1) Cultivating management personnel

Starting from FY2024, we are revising how we select and develop management candidates, and are taking a unified approach involving management, human resource divisions, supervisors, and candidates themselves. We have defined the necessary competencies for management personnel and utilize multiple internal indicators to select a certain number of candidates each year from department head and section chief level employees.

For candidates at the department head level, each individual is paired with an external strategic coach to engage in training focused on outlining and advancing their department's management strategy through coaching. This approach encourages them to develop a managerial perspective while actively demonstrating leadership in advancing the management strategy. For candidates at the section chief level, the human resource division and supervisors collaboratively create a "talent profile," outlining anticipated future positions and development challenges, and development is pursued based on these individual profiles. By assigning them to key positions within the Group and focusing on practical development through tough assignments, we proactively create opportunities to engage in dialogue with executives and third parties, including mentoring by executives and participation in external training, aiming to have them acquire the skills and high-level perspective required of executives. The initiatives for both department heads and section chiefs connect the personal growth of employees to the growth of the organization and the Company.

#### COSMO ENERGY HOLDINGS 60

Promoting Human Resources' Success, Health, and Job Satisfaction

Material issues for sustainable value creation							
Climate change countermeasures Provision of clean energy, products, and services Structura profitmakin					ural reform of king businesses		
	Marke State		formalistica of boost				
	Wateria	issues that form the	roundation of busi	ness com	mui	LY	
	Promoting human resources' success, health, and job satisfaction	Commitment to compliance and sharing of philosophy and values	Strengthening of Group risk management	Digital transforma (DX)	tion	Safe operations and stable supply	

### (2) Women's empowerment

To move beyond a traditional male-centric organizational structure and values, we have emphasized the empowerment of women as a priority issue within our diversity initiatives since the Sixth MTMP. In promoting the active participation of women in the workplace, we first recognize that forming a sufficiently sized talent pool is essential, leading us to actively recruit female employees. Since FY2022, the percentage of women graduates among total new graduate hires has consistently exceeded 50%, and in April 2024, we hired seven female field operators, bringing the total number of women engaged in operator roles to 37. In addition, in mid-career recruitment, we have focused on the hiring of women, including for managerial positions, resulting in a total of over 400 female employees, constituting approximately 15% of all employees.

Moreover, acknowledging that talent development after recruitment is crucial for promoting the participation of women in the workplace, we are implementing various initiatives aimed at their growth. Our mentoring system for women in management and future management candidates continually provides opportunities for dialogue with department heads and other leaders, creating awareness and opportunities for growth. We also consistently conduct activities such as participation in cross-industry networking events by selected high-potential employees and external training for women leaders. As of April 1, 2024, the ratio of women in managerial roles has increased to 7.1%. We will continue our efforts toward achieving our target of 10% female managers set in the Seventh MTMP.

In addition to these selection-based initiatives, we are also working to enhance the skills and mindsets

of female employees. Specifically, we do this by expanding their roles through assignment to departments that previously had no women and providing opportunities for presentations and discussions led by women executives and department heads for all female employees. Some of these initiatives are also open to women from Group companies, fostering a collective momentum for the empowerment of women across the entire Group.



### (3) Talent development in business divisions

#### 1. Succession planning

To ensure and visualize a talent pool for line managers, who are key players in the transformation process, we have developed job descriptions and a successor list for line manager positions, which are managed through the talent management system "Cosmo Talent Palette (CTP)." Based on the successor list, we carry out talent development, internal transfers, and recruitment activities.

### 2. Passing on of technology and improvement of expertise

To pass on technology and improve expertise, we first developed a "capability map" that outlines business skills within the technical division, which is subsequently being rolled out across various domains.

In addition, we certify positions that require a high level of expertise and are also recognized externally as Specialist Positions (SP course), thereby clarifying compensation for contributions to the Company and internal career paths. Through these efforts, we aim to strengthen recruitment competitiveness, reduce the risk of talent outflow, and enhance the capabilities necessary for business advancement.

Human Resource Development https://www.cosmo-energy.co.jp/en/sustainability/social/employee2.html

### (4) Advancement of diversity

Data

#### 1. Promoting participation and advancement of mid-career hires

To incorporate new ways of thinking, values, expertise, skills, and business practices, we actively engage in the hiring of mid-career professionals. As a result of our focus on recruiting those who can hit the ground running and assigning the right people to the right roles, the ratio of mid-career hires reached approximately 21% as of April 2024, an increase of about 12% over the past ten years. The ratio of mid-career line managers hired is approximately 11% overall\*.

By integrating diverse knowledge, we aim to foster innovation and encourage employees to challenge themselves by taking on new initiatives and transformations. \*Excludes shift workers and senior employees working at refineries.

### 2. Promoting the success of senior employees

For senior employees aged 60 and above, those working in roles equivalent to their responsibilities before age 60 are subject to the same grade, compensation, and evaluation systems, regardless of age. To leverage their accumulated knowledge and while ensuring they can work with a sense of fulfillment, we conduct career design training for employees in their 50s, providing them with opportunities to autonomously consider changes in their work style and roles within the organization after turning 60, regardless of position. Additionally, senior employees are also encouraged to submit career declarations, allowing them to reflect on their careers and update their future career plans annually.

#### 3. Other initiatives

In our employment of individuals with disabilities, we adhere to the principle of inclusion for everyone working in the same workplace, prohibiting discriminatory treatment, reasonably accommodating various needs, enhancing our consultation system, and improving the workplace environment. This is achieved through efforts to foster a barrier-free mindset by way of awarenessraising activities aimed at promoting understanding of individuals with disabilities and a commitment to respecting their independence and dignity. As of June 1, 2024, the employment rate of individuals with disabilities was 2.76%.

We have also implemented internal e-learning aimed at prohibiting harassment based on gender identity and sexual orientation, creating an environment where LGBTQ+ individuals can work without anxiety or dissatisfaction. As a result, we received external recognition through the PRIDE Index, achieving a "Bronze" rating in FY2022 and a "Silver" rating in FY2023.

Furthermore, we conduct monthly seminars for HR personnel from various Group companies, focusing on different themes related to diversity, thereby

work with Pride



promoting diversity across the entire Group.

Diversity, Equity, and Inclusion (DE&I) Initiatives https://www.cosmo-energy.co.jp/en/sustainability/social/employee3.html

ΝЛ		0		\$
I V I		5	IC.	,
	-	-		

#### COSMO ENERGY HOLDINGS 61

Promoting Human Resources' Success, Health, and Job Satisfaction

Material issues for sustainable value creation							
Climate change countermeasures	Climate change countermeasures Provision of clean energy, products, and services Structural reform of profitmaking businesses						
Material	issues that form the	foundation of busi	ness continui	:V			
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			

### Common initiatives to achieve our people strategy

To realize Vision 2030 during this transformative period, where we aim to increase the competitiveness of our existing businesses while addressing future energy transitions, it is essential for each employee to consider and act on how they can grow and contribute to the Company's growth to enhance enterprise value. To foster voluntary improvement actions and growth aspirations, we promote self-directed career development among employees. In particular, from FY2024, we have designated September to October as the Career Development period, creating opportunities for intensive self-growth and health enhancement aimed at strengthening career development.

"Kyari-tsuku (Career Development)" refers to the process of creating a fulfilling career by deeply understanding and reflecting on oneself, learning and researching what is meant by career and health, engaging in discussions about the future with supervisors, and striving for personal growth and better health.

Moreover, maintaining and improving organizational capabilities requires the effective utilization of data and increased DX literacy. Therefore, we are actively investing in systematizing existing data and educating employees.



### (1) Promotion of self-directed career development

#### 1. Human resource requirements at Cosmo

In FY2023, we established Cosmo's human resource requirements of "Challenge, Nurture, and Excel" as behaviors expected of employees. Starting from FY2024, these human resource requirements have been incorporated into performance evaluations. Employees will declare the concrete actions they will take that exemplify "Challenge, Nurture, and Excel," and the Company will evaluate these actions, thereby promoting the internalization and practical application of the requirements.



#### 2. Creation of career development opportunities

The career guidebook Navigating Your Career at Cosmo broadly introduces the operations and necessary skills of each department, assisting young employees and mid-career hires in considering their own careers. Additionally, the Career Column focuses on individual employees, showcasing their unique career paths. During the annual career declaration process, employees autonomously reassess their work experience, skills, and future medium- to long-term career goals, reporting their desired career trajectory to the Company based on discussions with their supervisors.

### 3. Offering a wider range of self-development opportunities

To support employees' voluntary learning aspirations and promote self-directed learning, since FY2023, the Company has fully subsidized the costs of correspondence courses taken for self-development purposes. Furthermore, to broaden interests and alleviate psychological barriers to learning, we introduced the online learning platform "Schoo" as a new self-development tool.

Training histories are managed within the system and shared with supervisors to encourage the application of learning to work and systematic development.

#### 4. Job challenge system

This system enables employees to directly approach their human resource division to express how they would like to contribute within the Cosmo Energy Group and participate in selecting their preferred departments, based on their envisioned career paths. This initiative has been continuously implemented since FY2000.

At the same time as promoting employees' self-directed career development and increasing engagement through the realization of their career paths, receiving departments are also effectively utilizing motivated and ambitious employees, leading to improved productivity in operations.

#### COSMO ENERGY HOLDINGS 62

Promoting Human Resources' Success, Health, and Job Satisfaction

Material issues for sustainable value creation							
Climate change countermeasures	Provision of clean energy, products, and services Structural reform of profitmaking 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			

(2) Maximizing organizational capabilities through visualization of talent data During this period of business transformation, the flexible assignment of talent is more critical than ever. To achieve this, we have introduced Cosmo Talent Palette (CTP) as a database for employee talent information, aiming to provide greater visibility of our human resources.

CTP provides general employees with essential information for self-directed career development, such as department introductions and self-improvement programs. Meanwhile, managers receive data necessary for nurturing their subordinates, which serves as a practical tool for development in the field.

We have also begun consolidating information related to transfers, such as job descriptions, successor lists for line manager positions, and capability maps for each department.

Going forward, we aim to roll out CTP across the entire Group, enhancing the visibility of both the quality and quantity of our talent. This will facilitate data-driven decisions regarding placements and transfers, ultimately maximizing the organizational capabilities of the Cosmo Energy Group.



### (3) Increasing DX Literacy

We are collaborating with the Corporate DX Strategy Dept. to improve the overall DX literacy of our employees. By fostering an understanding of our businesses among employees and helping them acquire literacy in DX, we aim to develop a group of 900 core digital personnel who can bridge the gap between business and digital. These educational investments are directed toward transforming operations and enhancing productivity.

## Increasing engagement and promoting health and productivity management

To maximize employees' capabilities, mental and physical health are essential. We focus on increasing engagement and promoting better health as a crucial human resource capability foundation.

Our approach to increasing engagement is based on the belief that building trust among employees and fostering a sense of organizational contribution are paramount. We are working to maximize individual productivity by enhancing the quality of workplace communication and implementing flexible work arrangements.

In terms of health initiatives, we promote health and productivity management and have received recognition for our efforts in preventive measures, such as a smoking ban during working hours and a system that allows employees to take leave when undergoing complete medical checkups and follow-up testing. As a result, we obtained the Development Bank of Japan (DBJ) Employees' Health Management Rating\* in 2019 and were recognized under the Certified Health and Productivity Management Outstanding Organizations Recognition Program (large enterprise category) for the sixth consecutive year in 2024.

As part of our human resource transformation (HRX) KPIs, we set the ratio of positive responses in employee awareness surveys regarding work satisfaction, capability demonstration, and pride in work as the Engagement Index, and monitor the trend in scores annually. Additionally, starting in FY2023, we have implemented pulse surveys to check responses on approximately 15 items related to health and engagement on a monthly basis. Through regular monitoring of mental and physical well-being, we encourage reflection through introspection and mental health care. \*The Development Bank of Japan (DBJ) Employees' Health Management Rating is part of the world's first financing menu to incorporate health management ratings. Using a proprietary screening system, DBJ rates and selects enterprises on the quality of their care for employee health and working conditions.

### (1) Strengthening communication

We promote one-on-one meetings through the dissemination of internal guidelines and training sessions for line managers. This initiative not only increases the frequency of communication but also encourages sharing of development challenges and career paths between supervisors and their subordinates. As a result, two-way communication in the workplace has been revitalized, with 63% of employees saying they were "satisfied with business meetings" in the employee awareness survey, an increase of 7% compared to the previous year. Strengthened trust between supervisors and subordinates and other factors have also contributed to an improvement in the engagement index, which has risen to 60%.

Starting in FY2024, we added a recording function for one-on-one meeting outcomes on the CTP platform. This will support the implementation of such meetings as a system tool, aiming to further improve communication quality.





#### COSMO ENERGY HOLDINGS 63

Provision of clean energy, products, and services Structural reform of profitmaking business

Promoting Human Resources' Success, Health, and Job Satisfaction

Material issues for sus

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			

### (2) Promotion of autonomous and flexible work styles 1. Support for balancing childcare/nursing care 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 remains 100%. In addition, to increase employee awareness of gender equality, we encourage male employees to participate in childcare. Our efforts include partially converting childcare leave into paid leave, introducing childbirth leave, and informing individual male employees of their eligibility to take this kind of leave. As a result, the percentage of male employees taking childcare leave was 62% in FY2023, an approximately 6% increase compared to the previous fiscal year. Other measures include offering 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 childbirth and childcare does not put the brakes on employees' career development.

Additionally, in conjunction with the establishment of a nursing care leave system that exceeds legal requirements, we hold a seminar on balancing nursing care and work to enhance internal understanding of caregiving, with over 200 participants each year.



#### 2. Choice of autonomous work styles

Based on the Cosmo Work Style Guidelines, we aim to promote work styles that enhance productivity. To enable employees to autonomously choose the most productive way of working, we offer a flex-time system without core hours for day-shift employees, as well as unlimited telecommuting days, allowing for a flexible work style where employees can choose when and where they work according to their own personal circumstances. In addition to maintaining health, we strive for high productivity with a clear work-life balance, promoting the use of paid leave as a Company. These efforts have led to a paid leave utilization rate of over 90% each year.

Creating Supportive Workplaces https://www.cosmo-energy.co.jp/en/sustainability/social/employee4.html

### (3) Initiatives for promoting better health

### 1. Group-wide health promotion through a strong commitment by leadership

Health and productivity management at the Cosmo Energy Group is driven by the strong commitment by the presidents of each Group company and representing senior management. Regular meetings of the Health and Productivity Management Promotion Committee, consisting of human resource division heads from each Group company, industrial physicians, medical professionals, and health insurance associations are held. During these meetings, committee members collectively share health-related challenges faced by each company, as well as develop and implement solutions.

### 2. Promotion of collaborative health

Data

Group companies proactively collaborate with health insurance associations to plan and implement initiatives and events aimed at promoting employee wellness. In particular, when it comes to smoking, our rules of employment prohibit smoking during working hours, and we also provide smoking cessation programs. These and other initiatives focus on six key areas that significantly impact physical health: smoking, alcohol consumption, dietary habits, sleep, exercise, and mental well-being. The Group works collectively to enhance the health of our employees.

Climate change

#### 3. Improving health literacy

To encourage employees to address health-related issues proactively we disseminate information aimed at improving health literacy and foster the establishment of 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 provide information through online seminars, health-related events, and other channels to empower employees to actively and voluntarily address health-related issues.

### 4. Establishment of the Healthy Lifestyle Index

Recognizing the importance of establishing healthy lifestyles as a foundation for better health, we have newly established the Healthy Lifestyle Index\* as a KPI to improve physical well-being. This index allows us to track the degree to which healthy habits have become part of an employee's life over time.



\*Healthy Lifestyle Index: The percentage of individuals with appropriate habits regarding alcohol consumption, diet, and exercise; the percentage of individuals obtaining adequate rest through sleep; and the percentage of individuals who do not currently smoke habitually.

### 5. Participation in the Health & Productivity Management® Alliance

We have joined the Health & Productivity 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 build a network, enabling us to consider and implement various wellness initiatives more effectively.

Health Management Initiatives

Https://www.cosmo-energy.co.jp/en/sustainability/social/employee6.html

Mission	Strategy	Foundation	Data	COSMO ENERGY HOLDINGS 64
Lluman Dialata				Material issues for sustainable value creation           Climate change countermeasures         Provision of clean energy, products, and services         Structural reform of profitmaking businesses
Human Rights				Material issues that form the foundation of business continuity           Promoting human resources success, hothic success, basting down and values         Commitment to complance and sharing and values         Strengthening of Group risk management         Digital Transformation (DX)         Digital complations and values

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 our Human Rights Policy

The Group has formulated its Human Rights Policy, which complies with the United Nations Guiding Principles on Business and Human Rights (UNGP), and a resolution to adopt the policy was passed by the Board of Directors. 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/company/policy/human-rights.html

### **Promotion structure**

Under the supervision of the Board of Directors, the Company's Sustainability Strategy Committee and Sustainability Committee determine, promote, implement, and confirm basic policies regarding corporate ethics, and promote, implement, and confirm efforts to respect human rights, with the aim of preventing and rectifying all manner of human rights violations both in and outside of Japan.

### **Relief mechanism**

The Group has established the Cosmo Energy Group Corporate Ethics Office. (See Page 66 for details) 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 Group.

### 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, and on the value chain of our other businesses in FY2023. This 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 resulting in the creation of an integrated map of human rights issues for FY2022 and FY2023. As was the case in FY2022, no risks were identified with a high seriousness of impact and likelihood of occurring, and for which the ratio of vulnerabilities that have been addressed was low. Based on the results of this evaluation, we will take corrective action as necessary on issues that require addressing in future initiatives.

Furthermore, we are considering expanding the evaluation scope to cover our entire supply chain in FY2024.



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

Although likelihood of occurring 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  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 vulnerability to human rights risks from the perspective of seriousness of impact and likelihood of occurring.

M	155	
	.00	

Human Rights

Data

#### COSMO ENERGY HOLDINGS 65

 
 Material issues for sustainable value creation

 Climate change countermeasures
 Provision of clean energy, products, and services
 Structural reform of profitmaking businesses

 Material issues that form the foundation of business continuity
 Compliance and Group risk heath, and job satisfaction
 Strengthening of Strong risk management
 Digital Digital COM is table supply
 Safe operations and stable supply

### **Expert dialogue**

We invited Mr. Hideki Wakabayashi, Director, THINK Lobby, Japan NGO Center for International Cooperation (JANIC), to exchange views with a Director and Senior Executive Officer of the Company in June 2024. In addition to discussions regarding the Company's human rights initiatives, opinions were exchanged regarding the topics of human rights risks and environmental issues in the Middle East and human rights. We will integrate the insights in this discussion with future improvements in our human rights initiatives.

Expert Dialogue https://www.cosmo-energy.co.jp/en/sustainability/social/employee.html



### 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. With this in mind, we formulated our Sustainable Procurement Policy and Sustainable Procurement Guidelines. These policies, based on our Group Management Vision and Code of Conduct, set forth basic matters regarding the social responsibilities that the Group should fulfill throughout the supply chain to help realize a sustainable society.

### Sustainable procurement surveys

We conduct sustainable procurement surveys among our suppliers using our own questionnaire form based on the Group's Sustainable Procurement Policy and Sustainable Procurement Guidelines.

From FY2022, we expanded this initiative to all Group companies. Traditionally, these surveys were mainly conducted by Cosmo Oil, a core operating company. They now cover 100% of suppliers of equipment, parts, construction, services, chemicals, etc., to Cosmo Oil refineries and other facilities. Over the course of FY2022 and FY2023, a total of 1,030 suppliers were invited by 11 Group companies to participate in the surveys and we received responses from more than 80% of them. To increase participation from here on, we will expand this initiative based on the aforementioned guidelines, secure understanding and approval from all of our suppliers, and aim for sustainable mutual development.

Foundation

Data

### COSMO ENERGY HOLDINGS 66

 
 Material issues for sustainable value creation

 Climate change countermeasures
 Provision of clean energy, products, and services
 Structural reform of profitmaking businesses

 Material issues that form the foundation of business continuity
 Material issues that form the foundation of business continuity

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

### Commitment to Compliance and Sharing of Philosophy and Values

In the Seventh Consolidated Medium-Term Management Plan, the Cosmo Energy Group designates Commitment to compliance and sharing of philosophy and values as one of its most important material issues that form the foundation of business continuity. Furthermore, we have set zero incidents of serious compliance violations as a KPI for this material issue and are working to foster a corporate culture of integrity.

### Compliance

At the Cosmo Energy Group, we are aware of the importance of adhering to laws, internal regulations, and social norms, etc., in realizing the sustainable development set out in the Group Management Vision. The actions that all of our officers and employees should take and matters they must observe in their everyday work are defined in the Cosmo Energy Group Code of Conduct. Our basic policy is to conduct business activities which emphasize compliance based on the Group Management Vision and Group Code of Conduct.

### Initiatives to ensure compliance with corporate ethics

Under the supervision of the Board of Directors, the Company determines, promotes, and confirms basic policies regarding corporate ethics. We also promote and confirm efforts to respect human rights, with the aim of preventing and eliminating all manner of human rights violations both in and outside of Japan, and report these matters to the Sustainability Strategy. In addition, to ensure all employees observe the Cosmo Energy Group Code of Conduct, we conduct corporate ethics training for all Group employees to enhance each employee's ethical awareness. Employee awareness surveys and evaluations are also conducted, with the goal of nurturing a positive attitude towards compliance and improving the workplace environment.

In FY2023, the Group recorded zero serious compliance violations.

### **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 FY2023, the number of consultations totaled 24 (12 violations of company rules, 12 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. Along with raising awareness of the whistleblower system amongst all Group employees, we provide practical training to helpline personnel on how to respond to whistleblowing cases, which also enhances the skills of helpline personnel.

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



#### COSMO ENERGY HOLDINGS 67

 
 Material issues for sustainable value creation

 Climate change countermeasures
 Provision of clean energy, products, and services
 Structural reform of profitmaking businesses

 Material issues that form the foundation of business continuity
 Strengthening of Group risk management
 Digital Transformation opprations and values
 Safe and values

### Strengthening Group Risk Management

The Cosmo Energy Group has positioned the strengthening of risk management as one of its material issues. Based on the identification of potential risks relating to business activities, we have established a system to ensure appropriate management of various risks using a cycle of planning, implementation, evaluation, and corrective action. For further information on the Group's material issues, please refer to (Page 51) of this report. For details on the possibility of materialization, impact, and countermeasures related to priority risks, please refer to (Page 35-37) of the Securities Report.

Securities Report (available in Japanese only)

Https://www.cosmo-energy.co.jp/content/dam/corp/jp/ja/ir/financial/valuable/2023/pdf/fy2023\_all.pdf 🖶

### ERM establishment and risk management structure

In order to respond more appropriately to changes in the business environment surrounding the Group and diverse risks, we have adopted a medium- to long-term perspective, viewing risks as business opportunities while working to build an Enterprise Risk Management (ERM)<sup>1</sup> system that seeks to maximize enterprise value. Referring to the approach in the Committee of Sponsoring Organizations' (COSO)<sup>2</sup> ERM Framework, we determined our policy on the establishment of an ERM structure and methodology at a meeting of the Sustainability Strategy Committee held in September 2023. In the identification of risks, we have introduced a management-driven top-down approach. When it comes to managing risks, we promote Group-wide risk management for each risk category<sup>3</sup> by appointing risk owners.

Furthermore, to address risks while considering both threats and opportunities that significantly impact our business activities, the Group monitors risks affecting the entire Group and the status of risk countermeasures at each Group company through the Sustainability Strategy Committee, reporting the results as part of our risk management activities. The results of these discussions are reported to the Board of Directors and communicated to Group companies through the Sustainability Liaison Committee.

In addition, the Sustainability Committee, headed by the General Manager of the Sustainability Initiative Dept. meets as necessary, functioning as the practical working body of the Sustainability Strategy Committee.

Governance System Driving Sustainability https://www.cosmo-energy.co.jp/en/sustainability/management/promotion.html

1 Enterprise Risk Management (ERM): A company-wide risk management initiative.

2 COSO: Committee of Sponsoring Organizations of the Treadway Commission

3 The following 13 categories:

Politics, economy, and society, (2) Management and business strategy, (3) Natural disasters and pandemics,
 Organizational and human resource strategy, (5) Public relations and branding, (6) Products and services,
 Accidents and malfunctions, (8) Personnel and labor affairs, (9) Information management, (10) IT systems, (11) Finance,
 Accounting, (13) Legal compliance and internal norms

### **Operation of risk management**

We select the highest-ranking risks based on their impact and likelihood, their relevance to material issues, and their importance to industry characteristics. These are drawn from medium-to long-term risks identified through a management-driven top-down approach (including interviews and questionnaires), as well as from risks identified by each department and Group company through a bottom-up approach. The Sustainability Strategy Committee determines the priority risks based on discussions with management, and these risks are also reported to the Board of Directors.

In order to ensure Group-wide control of these priority risks, we appoint a Group risk owner for the entire Group and a risk owner at core operating companies to oversee the practical implementation of controls. As the managing department responsible for the entire Group, the Group risk owner formulates countermeasures and related implementation plans for the priority risks, sets KPIs, and monitors and reviews results to gain insights for further improvement. Risk owners at core operating companies, in collaboration with the Group risk owner, formulate risk countermeasures and related implementation plans for each Group company, set KPIs, and conduct monitoring and reviews for further improvement.

Risks identified by each division and Group company that are not included in the priority risks are also managed as part of the ERM system.

Flow of Risk Management Operations

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

#### Priority risk selection



	Mission	Strategy	Foundation	Data		COSM	O ENERGY	HOLDIN	GS 68
Strength	Strengthening Group Risk Managemen								ural reform of aking businesses
					Mate Promoting hum resources' succ health, and jo satisfaction	rial issues that form the Commitment to compliance and sharing of philosophy and values	foundation of bus Strengthening of Group risk management	Digital transformation (DX)	ty Safe operations and stable supply
Priorit	y risks								

The priority risks determined at the beginning of FY2024 are as described below. We determine and manage the priority risks as described in Operation of Risk Management.

No.	Priority risk	Category	Relevance to material issues	Possible scenario
1	Decrease in demand for oil due to decarbonization and impact on business assets	Strategy	0	An unexpectedly rapid switch from gas-powered automobiles to electric vehicles (EVs) or rapid proliferation of green electricity generation could affect our business and business assets due to a sharp decrease in demand for petroleum products and changes in policies of suppliers, etc.
2	Impact on our business portfolio and strategic investments associated with tighter environmental regulations and enhanced climate change countermeasures	Strategy	0	Difficulty in responding to the trend toward tighter environmental regulations and enhanced climate change countermeasures could lead to economic losses due to impacts on strategic investments and longer investment recovery times, etc.
3	Increasing difficulty securing and developing human resources due to changes in the labor market	Strategy	0	As the working population shrinks, it could become difficult to secure and develop diverse and specialized human resources for both existing and new businesses.
4	Delays in implementing carbon-neutral fuel initiatives	Strategy	0	Action on carbon-neutral fuels could be delayed by difficulties in procuring such fuels that are available on the market, or setbacks in the development and introduction of new technologies.
5	Fluctuations in prices of raw materials and supplies*	Strategy		Increased volatility in the prices of resources such as crude oil and LNG due to political and economic changes, increases in the cost of materials, equipment, and labor, and fluctuations in foreign exchange rates may cause the Company's performance to deteriorate.
6	Natural disasters	Strategy	0	The Company's facilities could suffer catastrophic damage due to a large-scale natural disaster such as an earthquake, tsunami, or abnormal weather, making early recovery difficult and leading to huge losses.
7	Misconduct related to product quality	Operations	0	Misconduct related to product quality as a result of insufficient quality control could lead to losses due to an extensive product recall, and damage stakeholder trust.
8	Supply chain interruptions	Operations	0	As the Group's supply chain covers a wide area and various suppliers, personnel shortages at suppliers or political instability could cause supply chain interruptions or losses in areas such as crude oil production site shutdowns, shipping, refinery maintenance, and service station operations, etc.
9	Information security risks	Operations	0	<ul> <li>A cyberattack could cause a suspension of operations, information leaks, ransom demands, and other damages.</li> <li>Inadequate cyberattack countermeasures resulting from a lack of investment or specialized human resources, etc., could exacerbate the damage.</li> <li>Insufficient guidance and auditing of customer information management subcontractors could result in personal information leaks and loss of customer trust.</li> </ul>
10	Accidents, faults, and breakdowns at production facilities	Operations	0	Accidents, faults, or breakdowns at refineries, oil fields, or power plants could affect continuity of operations as well as the natural environment and living things, resulting in losses, in addition to impacting cash flow generation.
11	Fraud/inappropriate conduct due to deficiencies in internal controls	Finance/ compliance	0	Inadequate functioning of the internal control system or serious deficiencies or misconduct due to a lack of personnel, expertise, or proper IT implementation could result in administrative guidance or criminal penalties, in addition to loss of stakeholder trust.

\*We measure sensitivity to changes in crude oil prices and foreign exchange rates that will affect our consolidated ordinary income forecast for FY2024, announced on May 9, 2024. Assumptions for April 2024 to March 2025 are a crude oil price of \$85 per barrel and an exchange rate of ¥145 per US dollar (USD). Sensitivity refers to the level of impact for every \$1 per barrel increase in the crude oil price and per ¥1/USD in the yen-dollar exchange rate compared to the assumption. The sensitivity is calculated based on the assumption that crude oil prices and foreign exchange rates remain constant during the applicable period.

Sensitivity (full-year)		Crude oil (Dubai)	JPY/USD exchange rate
	Inventory impact	+¥2.8 billion	+¥1.7 billion
Petroleum Business	Refinery fuel cost, etc.	-¥0.6 billion	-¥0.4 billion
	Total	+¥2.2 billion	+¥1.3 billion
Oil E&P	Business	+¥1.4 billion	+¥1.0 billion

#### COSMO ENERGY HOLDINGS 69

Material issues for sustainable value creation						
Climate change countermeasures	Provision of clean energy, products, and services Structural reform of profitmaking businesses					
Material issues that form the foundation of business continuity						
			Digital transformation (DX)			

### Digital Transformation (DX)

Defining digital transformation (DX) as one of our most important material issues, the Cosmo Energy Group is working to strengthen its competitive edge in the energy business and create new value. The Seventh MTMP calls for us to look beyond individual organizations to fully demonstrate the value of data assets and implement various programs by fulfilling our KPI of developing 900 core digital personnel.



Transforming our business model through digital capabilities and change management

### Noriko Rzonca

Chief Digital Officer, Senior Executive Officer In charge of Corporate DX Strategy Dept., Corporate Communication Dept., and IT Initiative Dept.

At the Cosmo Energy Group, we believe that it is crucial for each employee to take ownership in addressing business challenges and actively engage in collective DX initiatives while making use of digital technology. By bolstering our digital capabilities with the establishment of data utilization infrastructure, etc., and promoting change management by way of human resource development and diversity, we are working toward transforming our business model.

Under the Seventh MTMP, we have set a KPI of developing 900 new personnel over the course of three years. These individuals are defined as core digital personnel, and they will lead the data utilization culture at the Cosmo Energy Group. Though we have utilized data previously as an energy company, we will be able to demonstrate the value inherent within data by orchestrating data across organizations. In FY2023, we rolled out our in-house training program called COSMO Data Campus, certifying 389 individuals as core digital personnel.

Cooperation across DX programs is underway to ensure the dissemination of knowledge throughout the Group. These programs include employee communication tools such as the DX survey, lectures by external experts, internal knowledge sharing at DX Forum<sup>1</sup> events, and Cosmo's DX Hub<sup>2</sup>, which helps solve business challenges in each business domain. These initiatives are increasing the speed at which we implement large-scale projects such as digitizing our refineries and also contribute to solving small, everyday challenges, resulting in an increase in the number of consultations.

### DX at Cosmo (Cosmo's Vision House)



Cosmo's commitment to DX is represented as "Cosmo's Vision House" shown above. Our primary objective is to realize "Cosmological Evolution." To achieve this end, 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, promoting employee professionalism, and advocating 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.

<sup>1</sup> DX Forum: An information-oriented program that seeks to improve the DX literacy of all Cosmo Energy Group employees, sharing information on the latest digital technologies and the qualities of digital talent.

<sup>2</sup> Cosmo's DX Hub (formerly CDO CUP): An in-house program under which a dedicated DX Taskforce supports the implementation of DX project ideas solicited from within the Group, with the goal of accelerating digitization.

Mission	Strategy	Foundation	Data	COSMO ENERGY HOLDINGS 70
Digital Transformation (DX)				Material issues for sustainable value creation           Climate change countermeasures         Provision of clean energy, products, and services         Structural reform of profitmaking businesses
				Material issues that form the foundation of business continuity           Promoting human resources' success, health, and job ashing of compliance and sharing of philosophi and values         Strengthening of Group risk management         Digital transformation of participation of transformation (DX)         Safe operations and stable supply

### Efforts to realize DX at the Cosmo Energy Group

As part of our DX efforts, we are creating programs conscious of autonomy in resolving business challenges. At the same time, we are also establishing mechanisms which connect individual initiative with organizational activities.

To improve our digital capabilities, we are working on training and maintaining various factors such as data, tools, employees, and data governance.

To advance change management, we are drawing up and implementing programs that will enable us to take action to actively adopt useful tools and mechanisms, while prioritizing safety in our operations, to strengthen our energy business and create new value.



Every year, the Group conducts a DX survey among Group employees to assess changes in their willingness to participate and to specify educational needs. The most recent survey found that approximately 1,600 employees were willing to utilize data and that visualization analysis tools were being used. The survey results and the previous year's activities revealed the skills that are necessary to further DX. These insights are disseminated internally through DX training, such as e-learning, and via DX Forum events for high-interest themes. In particular, we offer training tailored to each business domain and anticipated duties through COSMO Data Campus, a training program which combines classroom-based learning and practical exercises to develop core digital personnel who serve as leaders in data utilization. Furthermore, with Cosmo's DX Hub, we are working to solve challenges by creating a DX Taskforce to support employees who have requested collaboration in solving challenges. The DX Taskforce works with employees in aspects from specifying the issue itself to discussing and implementing measures aimed at solving it.

### **Results of our DX initiatives**

To realize the entire Cosmo Energy Group's medium-term management plan, we advanced DX by defining 1 to 4 below as our four priority themes in FY2023.

	Business challenge	Key details of initiative		
1	Digital refinery Page 18 Page 36	<ul> <li>Introduction of data integration infrastructure</li> <li>Safety monitoring of refinery employees through utilization of vital sensors</li> </ul>		
2	Supply chain optimization	<ul><li>Shipping optimization</li><li>Improving accuracy of demand forecasting</li></ul>		
3	Promotion of marketing science Page 36	<ul> <li>Maintenance of analytical data</li> <li>Sophistication of digital marketing</li> </ul>		
4	Green/Energy/Mobility Page 42	<ul> <li>Forecasting wind power generation volume</li> <li>Analyzing detected abnormalities in operational wind turbines</li> </ul>		
5	Other (back office, etc.)	<ul> <li>Visualization of data using BI tools</li> <li>Introducing AI to handle inquiries</li> </ul>		

Main KPIs and MTMP indicators are progressing well, as follows.

DX event participation Planned Total 20,000 people per year Actual Total 23,500 people per year Actual 26 per year	Cosmo's DX Hub Planned 60projects supported over 3 years Actual 17projects supported in the first year	IT/DX-driven operational efficiency improvement Planned -10% Actual -4% FY2023 (vs. FY2022)
--	--	--

### Core digital personnel

Planned **900** people developed over **3** years Actual **389** people developed in the first year

The Company was officially certified as a DX-Certified Operator (DX-Ready) under the Digital Transformation (DX) Certification System established by Japan's Ministry of Economy, Trade and Industry (METI). This certification was successfully renewed in July 2024.



#### COSMO ENERGY HOLDINGS 71



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.

### Thorough implementation of safety measures

The Cosmo Energy Group is committed to remaining a safe and accident-free corporate group by setting "safe operations and stable supply" as a key material issue KPI.

In the Seventh Consolidated Medium-Term Management Plan, Cosmo Oil established a safety goal of zero major work-related injuries and serious accidents rated Level IV\* or higher1, based on the previous fiscal year's performance and the Group's Safety Policy. In FY2023, Cosmo Oil worked to prevent defect recurrence, deploy such measures across organizations, and manage equipment using advanced technologies while striving to improve safety activities based on the unified Operations Management System (OMS).

Under these conditions, one Level IV process accident occurred in FY2023. Following this incident, the Company conducted a thorough analysis to find the cause of the accident and undertook recurrence prevention measures. In addition, we are working to bolster the system for involving internal experts in the change management and defect management processes we have been implementing over the years. We are also making improvements to our management system through initiatives like the company-wide deployment of the OMS.

Further, Cosmo Oil Marketing is continuously implementing measures including the crossorganizational deployment of case studies and raising awareness.

1 Based on a five-level system which represents the impact of issues that arise, with Level V being the most severe.

Number of work-related accidents at the Cosmo Energy Group (Accidents)									
	FY2021		FY2022		FY2023				
	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	20	60	42	74	40	59			
Accidents while commuting	12	21	12	18	10	29			
Total	113		146		138				

Number of work-related accidents at the Cosmo Energy Group

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

### Quality assurance: enhancing our quality assurance structure

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

In FY2023, we designated zero occurrences of serious product (quality) accidents as a KPI and engaged in guality control activities. Our refineries and plants have continued to achieve zero serious quality-related issues and shipments of non-conforming products.

### **Operations Management System (OMS)**

Cosmo Oil introduced an Operations Management System (OMS) in January 2016 to ensure safe operations and stable supply. The Company identified 25 requirements that we consider to be important in the course of conducting business activities. Comparing the current situation with these requirements allows us to recognize the gap between the status quo and our ideal state, thereby leading to continuous improvement. The introduction of the OMS has laid the foundation for our business activity management system, and we will leverage this foundation to achieve safe operations and stable supply, improve operations, and avoid missing opportunities. In FY2024, we will further implement initiatives such as companywide deployment of the OMS, change management, and strengthening of defect management mechanisms.



Super Nintei/A-Certification

The Cosmo Energy Group's Chiba Refinery and Yokkaichi Refinery obtained Super Nintei Jigyosha (Tokutei Nintei Jigyosha) certification in April 2021 and August 2022, respectively. Under this program, Japan's Ministry of Economy, Trade and Industry (METI) 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.

As a result, more flexible and efficient business operations are now possible, leading to enhanced international competitiveness. It is also highly significant that this certification was obtained by the Chiba Refinery, which has the highest refining capacity and is located close to the Tokyo metropolitan area, as well as by the Yokkaichi Refinery, which has been in operation for over 80 years. In addition, the Sakai Refinery was certified as Japan's first Special Accredited Advanced Safety Inspector (commonly known as "A-Certification"<sup>2</sup>) in August 2024, under the High Pressure Gas Safety Act's Accredited Advanced Safety Inspector System, a new system established by METI.

Moving forward, we 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 defects. At the same time, we will contribute to the enrichment of customers' lives through safe operations and a stable energy supply.

2 In December 2023, the High Pressure Gas Safety Act was revised and the new Special Accredited Advanced Safety Inspector System was introduced. This system requires existing authorized High Pressure Gas Operators to implement more advanced safety measures such as cyber security and a commitment from management, and certifies establishments that comply.


## **Biodiversity Initiatives**

The Cosmo Energy Group's Environmental Policy includes our basic approach to the conservation of biodiversity. Under this policy, we are committed to environmental preservation as well as the conservation and improvement of biodiversity, as we seek to make effective use of resources and sustainably use natural capital.

To further promote these efforts, we participate in initiatives based on the Declaration of Biodiversity by Keidanren (Japan Business Federation) and the 30by30 Alliance for Biodiversity (Ministry of the Environment). Accordingly, we implement initiatives to conserve ecosystems and take biodiversity into account across all of our business activities.

The Group also participates in the TNFD Forum, which involves organizing and disclosing past activities in line with the Task Force on Nature-Related Financial Disclosures (TNFD) framework. We are also working to conserve the natural environment, including biodiversity, by properly assessing risks and opportunities related to natural capital and biodiversity across our entire value chain.

Biodiversity Initiatives https://www.cosmo-energy.co.jp/en/sustainability/environment/biodiversity.html

### Identification of risks and opportunities related to naturerelated dependencies and impacts

In FY2023, the Group assessed the relationship between our business activities and nature based on the TNFD recommendations v1.0. We also conducted experimental risk assessments and analyzed the business impacts. Through the following process, we evaluated nature-related dependencies, identified risks and opportunities related to their impact, pinpointed priority locations, and investigated response measures.

Step 1 Determining the relationship between our business activities and nature	<ul> <li>Ascertained impacts and dependencies in related sectors (businesses) using ENCORE<sup>1</sup></li> <li>Identified businesses to be analyzed</li> <li>Investigated business impacts on the value chain through external case studies where risks had materialized</li> </ul>
	<ul> <li>Consolidated nature-related themes categorized as dependencies and impacts into 11 material issues and conducted risk assessments</li> <li>Identified nature-related material issues for the Group (the risks in conducting location analysis)</li> </ul>
	<ul> <li>Came up with potential business risks for the identified material issues</li> <li>Identified priority locations in the value chain with regard to important issues using biodiversity assessment tools such as IBAT<sup>2</sup></li> </ul>
Step 4 Investigating response measures	<ul> <li>Identified risks at priority locations in the value chain, reviewed the current situation in terms of risk mitigation, and investigated response measures</li> </ul>
	1 ENCORE: Risk analysis and assessment tool to determine the magnitude of a company's impact on and dependence on nature

1 ENCORE: Risk analysis and assessment tool to determine the magnitude of a company's impact on and dependence on nature 2 IBAT: Biodiversity assessment tool

## Ascertaining the relationship between the Group's business activities and nature (dependencies and impacts)

Using ENCORE, we assessed the significant nature-related dependencies and impacts for our businesses. As targets for analysis, we selected our Oil Exploration and Production, Petroleum (refining/storage), and Petrochemical businesses, based on their large business scale (in terms of revenue).

#### Identifying material issues

The scores from the ENCORE analysis of naturerelated risks were plotted on the vertical axis as "level of stakeholder concern," while the results of our risk importance assessment were plotted on the horizontal axis as "relevance to our business," and organized our nature-related risks using a materiality map.

With these results, we identified six naturerelated material issues for the Group: climate change, surrounding ecosystems, water pollution, extraction and depletion of natural resources, land use and development, and soil pollution.

#### Nature-related materiality map



Relevance to the Group's businesses

## Specifying priority locations

#### Evaluation based on value chain location analysis

The business risk posed by crude oil spills is considered a particularly significant material issue. Therefore, we conducted a location analysis based on the assumption of crude oil and petroleum spills for the major operational sites where direct operations are carried out. Using IBAT, we specified priority locations by evaluating areas of biodiversity importance within a radius of 200 kilometers from our main offshore oil fields and within 30 kilometers of our coastal operation sites in Japan.

Business type	Target location	Facilities	IBAT	Assessment
Oil Exploration and Production	Off the coast of the Emirate of Abu Dhabi, United Arab Emirates	Mubarraz Oil Field     Umm Al-Anbar Oil Field     Neewat Al-Ghalan Oil Field     Hail Oil Field	Protected area, KBA <sup>3</sup>	Priority location
Petroleum (storage)	Hokuto City, Hokkaido	Hakodate Distribution Terminal, Cosmo Oil Co., Ltd.	KBA	Priority location
Petroleum (refining) Petrochemical	Ichihara City, Chiba Prefecture	<ul> <li>Chiba Refinery, Cosmo Oil Co., Ltd.</li> <li>Chiba Plant, Maruzen Petrochemical Co., Ltd.</li> </ul>	KBA	Priority location
Petroleum (refining/ power generation)	Yokkaichi City, Mie Prefecture	<ul> <li>Yokkaichi Refinery, Cosmo Oil Co., Ltd.</li> <li>Yokkaichi Plant, Cosmo Oil Lubricants Co., Ltd.</li> <li>Yokkaichi Kasumi Power Plant</li> </ul>	KBA	Priority location
Petroleum (refining/ power generation)	Sakai City, Osaka Prefecture	● Sakai Refinery, Cosmo Oil Co., Ltd.	KBA	Priority location
Petroleum (processing)	Osaka City, Osaka Prefecture	<ul> <li>Osaka Plant, Cosmo Oil Lubricants Co., Ltd.</li> </ul>	KBA	Priority location
Petroleum (processing)	Kainan City, Wakayama Prefecture	Shimotsu Plant, Cosmo Oil Lubricants Co., Ltd.	Not applicable	-
Petrochemical	Matsuyama City, Ehime Prefecture	Matsuyama Plant, Cosmo Matsuyama Oil Co., Ltd.	Not applicable	-
Petroleum (storage)	Sakaide City, Kagawa Prefecture	Sakaide Distribution Terminal, Cosmo Oil Co., Ltd.	Not applicable	_
Petroleum (research)	Satte City, Saitama Prefecture	<ul> <li>Research &amp; Development Center, Cosmo Oil Co., Ltd.</li> </ul>	Not applicable	_

3 Abbreviation for Key Biodiversity Area

#### Investigating response measures

At the six sites specified as priority locations, we confirmed that the sites have already implemented various measures at this stage to address the risk of environmental impacts due to crude oil and petroleum spills, including strategies to mitigate impacts in the case of accidents and spill prevention. If any changes occur in operations or the surrounding environment going forward, we will consider additional response measures as necessary.

## Message from the Chairperson of the Board of Directors



Institutional reform and free, open-minded discussion make for a highly effective Board of Directors

Hiroshi Kiriyama

Chairperson, Representative Director Chairperson of the Board of Directors

# Transition of corporate governance enhancement

Looking back on our history of corporate governance, the Cosmo Energy Group has undergone three major turning points, each of which has contributed to our steady growth.

Our first turning point was in 2007, when Emirate of Abu Dhabibased IPIC<sup>1</sup> became a major shareholder. We gained two outside directors from IPIC, marking the start of full-fledged, shareholdercentric management.

Our second turning point came in 2015, when we transitioned to a holding company structure. We adopted a "company with an audit and supervisory committee" structure in order to increase the proportion of outside directors and strengthen the auditing and supervisory functions of the Board of Directors. Three key elements — the introduction of the executive officer system in 2006, the holding company structure, and the transition to a company with an audit and supervisory committee structure — came together to complete our corporate governance framework.

We encountered our third turning point from 2021 to 2022 when major shareholder  $MIC^2$  sold its shares in our company. The composition of the board changed following the resignation of directors from MIC. In June 2017, I assumed the role of Representative Director and Group CEO. Since then, I have worked to boost transparency and diversity within the Board of Directors, increasing the number of independent outside directors and female directors. I took this opportunity to reform our Board of Directors, further enhancing its effectiveness. Specifically, we streamlined the decision-making process by placing greater importance than before on the monitoring function of our board and transferring a large part of business execution authority to executives. During the course of this reform, we also received suggestions from our outside directors, which I believe contributed to management decision-making from a broader perspective

and the bolstering of stakeholder engagement.

These circumstances steadily strengthened our corporate governance, one step at a time.

1 IPIC (International Petroleum Investment Company): Investment company wholly owned by the government of the Emirate of Abu Dhabi.

2 MIC (Mubadala Investment Company): An energy-related investment company wholly owned by the Emirate of Abu Dhabi. IPIC and MDC (Mubadala Development Company) merged to establish MIC, a holding company.

2006	Introduction of executive officer system	
2008	Introduction of executive officer system	

- 2007 Strategic partnership with IPIC and capital increase through third party allotment
- 2015 Transition to holding company structure and a company with an audit and supervisory committee structure
- 2022 Reform of Board of Directors following change in largest shareholder

### Initiatives to enhance board effectiveness

As a result of these reforms, the ratio of reported matters that require discussion in terms of direction on board meeting agendas has increased. While resolutions remain important, I believe that reports provide a valuable opportunity to demonstrate the board's monitoring function. At Board of Directors' meetings, I think it's crucial to spend time on in-depth discussions from a variety of perspectives. Executives then formulate business execution plans in response to the candid advice and opinions of our outside directors. This allows us to refine our management strategy. The Group's organizational culture is characterized by employees who are open and quick to absorb new information, and our outside directors find it worthwhile to share their opinions. A virtuous cycle has emerged, where their advice and recommendations are carefully incorporated, and new discussions are born as a result.

As Chairperson, I strive to create a board environment in which all members feel comfortable to share their opinions frankly. In particular, each outside director has their own professional background. As such, the depth of their knowledge of the energy industry varies. Therefore, I make an effort to explain matters clearly and comprehensibly and ask each member to comment based on their personal areas of expertise. As a result of this approach, the board is able to hold open-minded discussions. Recently, we have had heated discussions regarding the expansion of renewable energy produced through offshore wind power generation, etc., and our efforts to address decarbonization. Many of our members have experience in managing corporations and therefore comments from a managerial perspective abound. In fact, our discussions are so lively that it is not uncommon for meetings to run over their scheduled time.

### The future vision for the Board of Directors

Every year, our company conducts an internal survey on the effectiveness of the Board of Directors. In FY2023, we collaborated with an external agency for the first time to carry out this survey. Our evaluators deemed our Board of Directors' meetings to be a place where effectiveness is maintained as opinions are exchanged freely and open-mindedly. Even with the inclusion of a third-party opinion, I'm glad to report that we received similar evaluations to previous years. This has deepened my confidence in the effectiveness of the initiatives that we have undertaken thus far.

On the other hand, outside directors also shared the opinion that discussions regarding medium- to long-term enterprise value enhancement should be increased and more time should be spent thoroughly discussing each agenda item. At our company, we provide opportunities for outside directors to discuss matters exclusively amongst themselves. The details of those discussions are shared internally in such a way that the speaker cannot be identified. We understand the importance of our outside directors' opinions and knowledge in terms of transparency and diversity, and moving forward we intend to continue to maintain a system that allows for these to be thoroughly reflected in management.

Finally, corporate governance is like a living organism; it's constantly changing and expected to evolve. We understand that capital markets are increasingly demanding a higher level of transparency and diversity from boards. We also value these two elements. That said, lively board discussions are a unique characteristic of our company. As more members with various backgrounds join us, it's crucial that we strike the correct balance so that the quality of discussions does not falter. In addition, when appointing new directors in the future, it's necessary for us to consider not only whether they possess the qualities of an exceptional manager and can contribute to enhancing enterprise value, but also whether they fulfill the skills matrix.

The goal of corporate governance can be recapitulated as "making the company better." To accomplish this, the Board of Directors will strive to enhance enterprise value by continuing to engage in thorough discussions and ensuring communication between our supervisory and business execution functions.

We look forward to sharing our ongoing efforts to strengthen corporate governance with you.

## 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 outline the specific guiding principles to achieve the Group Management Vision, we are working to advance improvements in management transparency and efficiency, prompt execution of business, and thorough risk management and compliance.

Corporate Governance Basic Policy https://cosmo-energy.co.jp/en/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	<ul> <li>Established a holding company structure</li> <li>Shifted to company with an audit and supervisory committee structure</li> <li>Introduced a share-based compensation plan</li> </ul>		
2019	<ul> <li>TSR standard introduced for medium- to long-term incentive remuneration (2018)</li> <li>Appointed a female director (Audit and Supervisory Committee member)</li> </ul>	o contraction of the second se	9
2021	<ul> <li>Number of independent outside directors increased</li> <li>Number of female directors increased</li> </ul>	703	8 <b>0</b> 2
2022	<ul> <li>Appointed a female executive officer as a director</li> <li>Number of independent outside directors increased</li> <li>Evaluation of efforts to achieve ESG targets taken into account in annual incentive remuneration</li> </ul>	5 6 4	6 <b>3</b>
2024	<ul> <li>Ratio of independent outside directors increased to comprise half of the Board of Directors</li> <li>Number of female directors increased</li> </ul>	6 6	8

### Enhancing transparency

To enable the Board of Directors to function effectively and efficiently, we have increased transparency in terms of skills, gender diversity, and the balance between internal and external directors. As of July 2024, four out of 12 directors are women (an increase of one) and six are independent outside directors (an increase of two), meaning that independent outside directors now account for half of all directors.

### **Revising executive remuneration**

Remuneration consists of three components: basic remuneration, annual incentive remuneration, and medium- to long-term incentive remuneration. In addition, beginning in FY2022, the evaluation of efforts to achieve ESG targets has been incorporated into the assessment for annual incentives. See (Page 80) for details.

In FY2023, we held discussions with a view to the possibility of further increasing the appointment of external talent and expanding remuneration linked to business performance in the future. As a result, at the ordinary general meeting of shareholders in June 2024, a resolution was passed to revise the remuneration framework.

### 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 the 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 as well as corporate ethics. With this in mind, it focuses on "determining the Company's overall direction," "engaging with stakeholders (information disclosure, etc.)," and "overseeing business execution" while streamlining 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's supervisory function and streamlining management.

Currently, the Board of Directors is increasing its effectiveness by accelerating discussions in preparation for formulating the next medium-term management plan.

### 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 a system in which information required by those directors is immediately reported.

### Activities undertaken by the Board of Directors in FY2023

In FY2022, the Company revised the authority of the Board of Directors, by delegating the authority to make business execution decisions to executives and increasing reported matters to further strengthen the Board's supervisory function.

Expanding upon the above-mentioned reforms, in FY2023, the Board prioritized deliberations on the following points toward realization of the Seventh Consolidated Medium-Term Management Plan (hereafter, "the Seventh MTMP") and Vision 2030.

#### Monitoring progress of the Seventh MTMP

In FY2023, the first year of the Seventh MTMP, the Board conducted semi-annual progress reviews to supervise the status of business execution and provide advice for its further advancement. As a result, we achieved some of our goals related to financial indicators, including profitability and capital policy, ahead of schedule.

Furthermore, to realize Vision 2030, the Board deepened discussions on the future expansion of New fields, such as bolstering the green electricity supply chain.

#### **Discussions on capital policy**

The Company regards enterprise value enhancement as one of its top management priorities. As part of the Seventh MTMP, we formulated a three-pronged capital policy that focuses on shareholder returns, financial health, and capital efficiency. In FY2023, the Board held comprehensive discussions on topics such as the external environment, profitability, and their influence on the Company's enterprise value enhancement, striving to bolster shareholder returns.

#### Sustainability

The Company's Board of Directors supervises and discusses sustainability strategy at its meetings. In FY2023, discussions focused on themes such as revising the Roadmap to Achieving

Net Zero Carbon, reporting on the progress and results of material issue KPIs, providing updates on risk management results, the status of compliance and the whistleblower system, and human rights due diligence.

For information of FY2023 Board of Directors' meeting attendance, please refer to the Securities Report. (available in Japanese only) https://www.cosmo-energy.co.jp/content/dam/corp/jp/ja/ir/financial/valuable/2023/pdf/fy2023\_all.pdf

### **Evaluation of Board of Directors' effectiveness**

In order to check whether or not the Board of Directors is effectively fulfilling its roles and responsibilities, the Company conducts an evaluation of the Board's effectiveness every year. In FY2023, this evaluation process was conducted with the cooperation of a third-party organization to incorporate more objective perspectives and external knowledge. (The full effectiveness evaluation report is available on our corporate website.)

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

### Overview of evaluation results and improvements made in FY2023

- The Board of Directors was appropriately sized, diverse in composition, and served as a forum for the free and open exchange of opinions.
- The Board of Directors served as a venue to monitor progress of the Seventh Consolidated Medium-Term Management Plan with a view to Vision 2030, and to hold discussions about dialogue with shareholders and investors as well as capital policy.
- The Board of Directors took the following actions and made improvements concerning its action policies stated in the previous fiscal year.
- 1. Regularly supervised policy execution status to achieve the Seventh Consolidated Medium-Term Management Plan.
- 2. Hired a third-party organization as part of the evaluation process to further improve upon the methods used to evaluate the Board's effectiveness.

### Future issues and action policy

In pursuit of even greater effectiveness of the Board of Directors, the Board strives for ample discussions over the medium to long term, with an eye to formulating our next medium-term management plan and realizing Vision 2030.

## Message from the Chairperson, Nomination and Remuneration Committee



# The role and action policy of the Nomination and Remuneration Committee

In 2015, Cosmo Energy Holdings transitioned to a holding company structure and established the Nomination and Remuneration Committee (formerly the Nomination and Remuneration Advisory Committee). Nearly ten years have passed since then.

When it comes to nominations, the role of the committee with respect to succession plans, which are of utmost importance, involves selecting and cultivating prospective leaders of the next generation and the generation thereafter, while guaranteeing fairness and transparency in the process. On the remuneration front, the committee strives for further improvement by implementing a remuneration plan that factors in financial indicators, as well as non-financial indicators and stock price, in an effort to enhance medium- to long-term enterprise value.

Our Nomination and Remuneration Committee is a voluntary body comprised of the Chairperson and Representative Director and four independent outside directors. As a result of being voluntary, the committee has a high degree of freedom and is designed to be able to flexibly respond to the demands of the times. Recently, members have discussed topics such as developing nomination policies and remuneration systems befitting the Group. I'm confident that the standard of discussion and deliberation upheld by our Nomination and Remuneration Committee is comparable to companies with a nomination committee structure among others.

Regarding the process for electing a new Group CEO in 2023, as I mentioned during the Outside Director Dialogue held in FY2023, the Nomination and Remuneration Committee informed the then CEO of the vital qualifications and considerations for his successor. All candidates recommended based on these requirements were interviewed, and the Committee unanimously decided to appoint Shigeru Yamada as Group CEO.

In the year since Mr. Yamada assumed his role, he has thoroughly established his own system. Even those outside the company can feel how its atmosphere has changed. In addition to his unifying power and grit that we had held in high regard prior to his nomination, Mr. Yamada has demonstrated his leadership prowess on many occasions. By setting a clear course as CEO, both the Group and our employees alike have grown remarkably during this time. Though it may seem boastful to say, Mr. Yamada's success reinforces the sense that the Nomination and Remuneration Committee functioned properly.

### FY2023 initiatives and future challenges

In pursuit of further transparency and diversity of the Board of Directors, one goal moving forward is for independent outside directors to make up the majority of the board. Aiming to realize this goal, two outside directors were newly elected in June 2024. Due to this, half of the board is now comprised of outside directors.

In selecting candidates, the Committee bore each person's skills matrix in mind while also valuing those who demonstrated promise in providing advice and recommendations for enhancing enterprise value, rather than experience or knowledge of the energy industry. The Committee also prioritized those who could play a monitoring role and contribute to the diversity of the board. The two newly appointed outside directors bring with them experience in managing corporations in industries completely disparate from energy. As such, it is our hope that they will provide us with advice and monitoring that is unreserved.

Regarding the remuneration plan, there are three major considerations: remuneration levels, distribution ratio, and the evaluation system. At the General Meeting of Shareholders in FY2024, in addition to factoring in the increase in independent outside directors, we revised our remuneration levels upon consideration of domestic and international inflation rates, wage increases, and the possibility of expanding our performance-linked remuneration plan further. At the same time, the Nomination and Remuneration Committee has begun considering the introduction of malus and clawback clauses. In bringing in and cultivating exceptional director candidates from outside the Company, there's a possibility that we will review the plan in the future, including making changes to the remuneration distribution ratio. However, I believe we can simultaneously maintain transparency and fairness in our remuneration plan by tightening management accountability for incidents such as misconduct.

With respect to the evaluation system, two years have passed since we introduced an evaluation of efforts to achieve ESG targets as part of our annual incentive remuneration. To ensure a more objective system, we intend to thoroughly discuss the established evaluation criteria to determine if changes need to be made based on the outcomes of this evaluation to date.

Nomination and remuneration are vital elements for enhancing enterprise value. The Nomination and Remuneration Committee evaluates and considers those employees who will usher the Group into the future. The Committee does this by creating as many occasions as possible each year to interact with general manager-level employees and above from key group companies through various meetings, such as Audit and Supervisory Committee meetings. In addition, the Committee is always discussing a remuneration system that considers demonstrated employee capabilities.

Moving forward, the Committee will maintain transparency and fairness, focusing our energy on appointing and cultivating promising managerial personnel who will contribute to enhancing enterprise value at the Cosmo Energy Group.

## Nomination and Remuneration Committee

### Message from newly appointed outside directors



I'm committed to watching over the Cosmo Energy Group's structural shift toward a carbon-free society.

Takako Suzuki

I served as the President and CEO of S.T. CORPORATION for ten years, starting in 2013. Currently, I hold the position of Chairperson. During my time as President, I endeavored to increase the brand value of existing businesses, redefine our business domains, organize our portfolio, lead the exploration of new fields, and

reform our business structure. Prior to that, I worked in marketing and branding for international luxury brands such as LVMH Group for 18 years. As an outsider from a different industry, I believe my perspective allowed me to challenge industry conventions and drive transformation forward.

As an external voice, I believe it's the mission of outside directors to represent the expectations and concerns of various stakeholders and to guide decision making in a more positive direction in light of a company's medium- to long-term goals. Green transformation is one of our top priority issues. To make sure that the Group can steadily realize a structural shift, I don't hesitate to share my perspective as an outsider with a different background from other directors. I intend to do my best to make a contribution.

I have managed an enterprise involved in the development, production, and sales of automotive in-vehicle information systems and electronic components. Though I have worked to establish a foundation for sustainable growth by engaging in cooperative alliances with other companies and reforming group restructuring



governance, among other efforts, business restructuring in the face of green transformation has been the greatest theme for management as the automotive industry navigates a time of great change: the transition to electric vehicles in pursuit of decarbonization. Given that the Company, under the umbrella of "Oil & New," has also defined similar management themes, I believe there are various ways in which I may be of support. Furthermore, in my previous position I had numerous opportunities to engage in dialogue with diverse investors, including those from overseas. I understand that the pursuit of profit for all of the various stakeholders is the same at Cosmo Energy Group. While valuing third party perspectives and insights, I will recommend value maximization for our stakeholders and growth-oriented governance in order to contribute to enhancing the Group's enterprise value.

### **Overview**

The Company has established the 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 the Representative Director and Chairperson as well as independent outside directors, and it deliberates on the nomination and remuneration of executive officers. The Committee is chaired by an independent outside director.

### Activities undertaken by the Nomination and Remuneration Committee in FY2023

In FY2023, the Nomination and Remuneration Committee met 10 times and primarily discussed the following agenda items.

Meeting date	Matters deliberated/reviewed
April 18, 2023	• Evaluation of individual officers
April 29, 2023	Deliberation on shareholder proposals
May 17, 2023	Deliberation on shareholder proposals
June 6, 2023	<ul> <li>Need for changes in human resource requirements</li> <li>Individual compensation amounts for FY2022</li> <li>Executive remuneration plan for FY2023</li> </ul>
July 24, 2023	<ul><li>Future Board of Directors structure</li><li>Setting of FY2023 targets by individual officers</li></ul>
September 25, 2023	<ul><li>Future Board of Directors structure</li><li>Confirmation of the latest trends in share-based compensation plan</li></ul>
November 17, 2023	• Future Board of Directors structure
December 21, 2023	<ul> <li>Confirmation of officer multilateral evaluation results</li> <li>Report on the environment surrounding management remuneration and confirmation of analysis results</li> </ul>
January 22, 2024	Appointment of directors and executive officers
March 25, 2024	<ul><li>Skills matrix for FY2024</li><li>Malus and clawback clauses</li></ul>

For information on Nomination and Remuneration Committee meeting attendance in FY2023, please refer to the Securities Report. (available in Japanese only)

https://www.cosmo-energy.co.jp/content/dam/corp/jp/ja/ir/financial/valuable/2023/pdf/fy2023\_all.pdf

### **Evaluation of Nomination and Remuneration Committee**

As in the previous fiscal year, we conducted an analysis and determined that our Nomination and Remuneration Committee is effective and that the Committee is continuously striving to improve its effectiveness as demonstrated below.

In FY2023, a third-party organization cooperated in our evaluation process to include external knowledge and perspectives to ensure greater objectivity.

### **Overview of evaluation results**

- The Committee engages in sufficient discussions within an appropriate structure, based on the proper scope of its advisory function.
- The Committee holds in open and proactive discussions under appropriate management, and it has been evaluated that the Secretariat fulfills necessary and sufficient functions.
- The skills matrix, outside director appointment process and succession plan, and views on executive remuneration are currently considered appropriate.

### Outcomes in FY2023

- Appropriate responses to shareholder proposals (election of outside directors)
- Initiatives to increase the ratio of independent outside directors
- Consideration of practicalities toward the introduction of malus and clawback clauses

#### Future issues and action plan

The Committee will endeavor to further strengthen governance and increase effectiveness, including considering executive human resource requirements on the nomination front, and continuing to explore the introduction of malus and clawback clauses on the remuneration front.

Results of the Evaluation of the Effectiveness of the Nomination and Remuneration Committee are available on our corporate website.

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

### Succession planning and CEO appointment and dismissal

The Cosmo Energy Group considers the development of successors to the president to be 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 continuously evaluates the appropriateness of successor candidates and the succession plan, using information from these evaluations and the results of the annual performance reviews.

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 Group's human resources requirements and the results of performance evaluations conducted every fiscal year. The president then submits the proposed candidate to the Nomination and Remuneration Committee, which reviews the proposal and makes a 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 will decide 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) of Cosmo Report 2023 and the Message from the Chairperson, Nomination and Remuneration Committee section on (Page 77) of this report.

## 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 enhancing enterprise value and increasing 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. The levels are competitive compared to those of 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.

The remuneration for outside directors, non-executive directors and directors who are members of the Audit and Supervisory Committee is limited to basic remuneration as a fixed salary, for reasons such as the fact that they do not perform business execution, or that they need to be able to properly fulfill their supervisory role.

	Monetary re	Share-based compensation			
		Remuneration linked t	o business performance		
	Basic remuneration (fixed)	Annual incentive remuneration	Medium- to long-term incentive remuneration		
Executive director	0	0	0		
Executive officer	0	0	0		
Outside director	0	—	-		
Non-executive director	0	-	-		
Audit and Supervisory Committee member	0	_	_		

### **Incentive plans**

#### Annual incentive remuneration

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

To ensure consistency with the shareholder return policy announced in the Seventh Consolidated Medium-Term Management Plan, performance evaluations are now conducted based on consolidated net profit (excluding the impact of inventory valuation).

Beginning in FY2022, ESG evaluations have been incorporated in remuneration in an effort to foster 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 KPIs and Results for Material Issues in the Seventh Consolidated Medium-Term Management Plan section 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 share-based compensation plan that is non-monetary in nature. An incentive plan is established every year and evaluated over three consecutive business years in consideration of the execution of duties during the applicable business execution period. For each executive officer eligible under this system, 50% of the basic points defined 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 Tokyo Stock Price Index (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 have 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 Group chairperson and the CEO 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 TSR relative to the TOPIX growth rate and the consolidated net debt-to-equity ratio.

## Directors and Executive Officers (as of July 1, 2024)

#### Directors



Hiroshi Kiriyama Representative Director, Chairperson

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, Chairperson (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.



- Apr. 1988 Joined Cosmo Oil Co., I td.
- 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



- 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., she has promoted workstyle reform, encouraged diversity, and driven personnel affairs across the Group. From 2022, as Director and Senior Executive Officer, she has been steadily producing results, including formulating the Seventh Consolidated Medium-Term Management Plan.



Senior Executive Officer

- Apr. 1993 Joined Cosmo Oil Co., Ltd. Apr. 2018 General Manager, Supply Dept. Apr. 2021 Director, Executive Officer
- Apr. 2023 Senior Executive Officer of the Company
- Jun. 2024 Director, Senior Executive Officer (current position)

Taisuke Matsuoka has long worked in the sales, supply and demand, and corporate planning divisions, and possesses extensive knowledge across the Group's business domains. From 2018, he contributed to drafting the Group's supply and demand policy and an optimal supply-demand balance as General Manager of the Supply Dept. at Cosmo Oil, and from 2021, he has been establishing a track record by overseeing Cosmo Oil as Director and Executive Officer. As Senior Executive Officer of the Company, he is currently in charge of the Corporate Planning Dept., Finance Dept., Power Business Management Dept., and New Energy Business Management Dept., and is achieving results such as exploring further initiatives in pursuit of decarbonization, in addition to executing our medium-term management plan.



- Shigeki Iwane Director (non-executive)
- Apr. 1976 Joined The Kansai Electric Power Co., Inc.
- Jun. 2007 Executive Officer, General Manager, Planning Office
- Jun. 2010 Managing Director
- Apr. 2012 Representative Director, Vice President
- Jun. 2013 Representative Director, Executive Vice President
- Jun. 2016 Representative Director, President
- Outside Director, Mitsubishi Tanabe Pharma Corporation
- May 2019 Chairman, Federation of Electric Power Companies of Japan
- Jun. 2019 Outside Director, Television Osaka, Inc.
- Jun. 2021 Senior Advisor, Yuasa M&B, Co., Ltd. (current position) Dec. 2023 Advisor, Iwatani Corporation (current position)
- Jun. 2024 Director of the Company (current position)

Shigeki Iwane joined The Kansai Electric Power Co., Inc. (KEPCO) in 1976 and was appointed Representative Director and President in 2016. With his extensive knowledge of the electricity market and systems, as President of KEPCO, he coordinated the liberalization of its electricity retail sales business and promoted efforts to increase management efficiency. In addition, he ensured the success of diversified management in various industries outside of the electricity field, such as telecommunications, real estate, and gas. As such, he possesses knowledge that extends beyond the industry to which the Company belongs.



- 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 MAFF 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. As a member of the Nomination and Remuneration Committee, she is working to improve succession planning and executive remuneration, in addition to contributing to the enhancement of the Group's enterprise value based on the rich experience she cultivated as a representative of Japan at international organizations and her extensive expertise as a practicing attorney-at-law.



Takuya Kurita Independent Outside

- Apr. 1984 Joined Ministry of Construction (currently Ministry of Land, Infrastructure, Transport and Tourism (MLIT)) Sep. 2007 Counselor, Cabinet Secretariat
- Director, Urban Renewal Promotion Division, City and Regional Jul. 2009 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
- Jul. 2021 Resigned from the above position
- Corporate Advisor, Sumitomo Mitsui Trust Bank, Limited (current position) Oct. 2021
- Jun. 2022 Independent Outside Director of the Company (current position
- Representative Director, President and CEO, EAST JAPAN CONSTRUCTION Jun. 2024 SURETY CO., LTD, (current position)

Takuya Kurita joined the Ministry of Construction (currently MLIT) 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. In addition to being instrumental in formulating the Seventh Consolidated Medium-Term Management Plan, particularly in making recommendations related to new businesses, he is working to improve succession planning and executive remuneration as a member of the Nomination and Remuneration Committee



Apr. 1984 Joined Nissan Motor Co., Ltd.

- Aug. 2001 Joined LVJ Group Co., Ltd. (currently Louis Vuitton Japan Co., ltd)
- Apr. 2009 Representative Director, Shaldan Co., Ltd.
- Jan. 2010 Joined S.T. CORPORATION
- Apr. 2013 Director, President & CEO
- May 2013 Director, Shaldan Co., Ltd. (current position)
- Mar. 2020 Outside Director, TRUSCO NAKAYAMA Corporation (current position)
- Jun. 2021 Chairperson of the Board, President & CEO, S.T. CORPORATION
- Sep. 2022 External Director, KING JIM CO., LTD. (current position)
- Jun. 2023 Chairperson, S.T. CORPORATION (current position)
- Jun. 2024 Independent Outside Director of the Company (current position) Outside Director, FUJIFILM Holdings Corporation (current position)

Takako Suzuki joined Nissan Motor Co., Ltd. in 1984. In 2001, she conducted product PR and marketing campaigns targeting women at various companies such as Louis Vuitton Japan Co., Ltd. Leveraging her extensive knowledge, she founded a consulting company which focuses on design among other fields. In 2010, she joined S.T. CORPORATION, where she created numerous hit products as part of a design revolution, and was appointed Director, President & CEO in 2013. In 2023, she was appointed Chairperson at S.T. CORPORATION, Outside Director at TRUSCO NAKAYAMA Corporation, and Outside Director at KING JIM CO., LTD. She brings a wealth of knowledge that extends beyond the industry to which the Company belongs.

### Directors and Executive Officers (as of July 1, 2024)

Supervisory Committee

Member

#### Directors



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 Apr. 2024 Director
- Jun. 2024 Director (Full-time Audit and Supervisory Committee Member) (current position)
- Outside Director, KYOEI TANKER CO., LTD. (Audit and Supervisory Committee Member) (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., Accounting Dept., and Finance Dept., steadily implementing sustainable management and demonstrating leadership toward the achievement of net zero carbon emissions.





- 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
- Jun. 2019 Independent Outside Director of the Company (Audit and Supervisory Committee Member) (current position) Jun. 2024 Outside Director, Yokogawa Electric Corporation (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.



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., Itd.
- 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.



#### Toshihiro Kuriyama

Independent Outside Director, Audit and Supervisory Committee Member

Apr. 1980 Joined ALPS ELECTRIC CO., LTD. (currently ALPS ALPINE CO., ITD.)

- Jun. 2004 Director, General Manager, Magnetic Devices Division
- Apr. 2007 Director, General Manager, Business Development Headquarters Apr. 2009 Director, General Manager, Executive in charge of Engineering
- and Quality Management
- Jun. 2011 Managing Director
- Jun. 2012 Representative Director, President
- Jan. 2019 Representative Director, President, Executive Officer
- Jun. 2023 Representative Director, Chairperson
- Jun. 2024 Independent Outside Director of the Company, Audit and Supervisory Committee Member (current position)

Toshihiro Kuriyama joined ALPS ELECTRIC CO., LTD (currently ALPS ALPINE CO., LTD.) in 1980. After serving as General Manager of Business Development Headquarters, Engineering Headquarters, and other divisions, he was appointed Representative Director and President in 2012. Over the course of 11 years as President, he has led the aforementioned company, which is engaged in a wide range of businesses both in Japan and overseas that are indispensable to the mobility industry, including the development and sales of automotive onboard information systems. In addition to business expansion, he has worked toward building an ideal corporate governance structure and decarbonization initiatives, as well as establishing various systems necessary for enterprises.

#### Executive Officers



Noriko Rzonca Senior Executive Officer, CDO In charge of Corporate DX Strategy Dept., Corporate Communication Dept.,

IT Initiative Dept.



Senior Executive Officer In charge of Accounting Dept., Legal & General Affairs Dept.



Yoshihiko Sato Senior Executive Officer General Manager, Secretariat Office



#### 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 drive the Seventh Consolidated Medium-Term Management Plan forward.

	Skill died			Deminion				Skill alea				Demnition			
Corporate	e management	Has exp organiz	is experience in business execution as CEO or other executive role in a company, and possesses the ganization in accordance with management strategy			lity to lead an	DX/tech	/technology Has knowledge and experience in digital and or and corporate culture by leveraging such data in			e in digital and oth aging such data in 1	tal and other scientific technologies, and possesses the ability to transform businesses ich data in management strategies			
Petroleum	n Business ( <i>Oil</i> )	Has spe	ecialist knowledge of the Petroleum Busi	iness, and possesses the ability to enhance enter	prise value		PR/IR/brand marketing ls cap the a			Is capable of strategically deploying PR activities and making related comprehensive judgments and decisions, and possesse the ability to take the lead in enhancing and creating enterprise value					
Other bus (Renewab new busir	sinesses ( <i>New</i> ) vle Energy Business/ nesses)	Has be compre	en involved in the Renewable Energy shensive judgment on new business mod	Business and new business projects, and pos dels and profitability	sesses the abil	ity to make a	Finance/	accounting/taxation	Has the fir ability to p	Has the finance, accounting, and taxation expertise required to draft financial and accounting strategies, and possesses t ability to properly carry out the Group's financing and account operations				nd possesses the	
Sustainab risk mana	ility (ESG)/ gement	Possess sustaina	ses the ability to pursue sustainable man able growth	agement from the perspectives of sustainability a	and ESG to achi	eve	Legal aff	airs/compliance	Has exper corporate	tise in corporate les management	gal affairs and com	pliance, and posse	sses the ability to	provide supervision	to ensure sound
Personnel developm	ersonnel affairs/human resource levelopment/diversity Has knowledge and experience in implementing human resource strategies, and possesses the ability to draft strategies from the perspectives of personnel affairs, labor management, and diversity					nanagement	Global-n	nindedness	Has overs make man	eas business experi agement decisions f	ence, understands rom a global persp	different cultural p ective	erspectives and pr	actices, and posses	ses the ability to
										Experience, knowledg	e, and expertise, etc	2,3			
	Name	Gender		Committee membership, responsibilities, etc.	Number of years as director <sup>1</sup>	Corporate management	Petroleum Business ( <i>Oil</i> )	Other businesses ( <i>New</i> ) (Renewable Energy Business/ new businesses)	Sustainability (ESG)/risk management	Personnel affairs/ human resource development/ diversity	DX/technology	PR/IR/brand marketing	Finance/ accounting/ taxation	Legal affairs/ compliance	Global- mindedness
	Hiroshi Kiriyama	8	Representative Director, Chairperson	Chairperson, Board of Directors Nomination and Remuneration Committee Member	9	0	0	0	0	_	-	0	_	_	-
	ShigeruYamada	8	Representative Director, Group CEO	-	4	0	0	0	_	-	-	0	-	_	_
	Junko Takeda	*	Director, Senior Executive Officer	Human Resource Dept., Business Portfolio Management Dept., Sustainability Initiative Dept.	2	_	0	_	_	0	_	_	_	0	_
	Taisuke Matsuoka	8	Director, Senior Executive Officer	Corporate Planning Dept., Finance Dept., Power Business Management Dept., New Energy Business Management Dept.	_	_	0	0	_	_	_	0	_	_	_
	Shigeki Iwane	8	Director	-	—	0	_	O	_	-	_	_	_	_	-
	Ryuko Inoue		Independent Outside Director <sup>4</sup>	Nomination and Remuneration Committee Member	3	_	-	_	0	0	-	_	_	0	0
Directors	Takuya Kurita	8	Independent Outside Director <sup>4</sup>	Nomination and Remuneration Committee Member	2	_	-	O	—	0	0	_	-	_	
	Takako Suzuki	2	Independent Outside Director <sup>4</sup>	-	-	O	-	0	0	—	-	O	_	_	
	Takayuki Uematsu	8	Director, Full-time Audit and Supervisory Committee Member	Audit and Supervisory Committee Member	6	0	-	-	0	-	-	0	0	_	_
	Yasuko Takayama	*	Independent Outside Director, Audit and Supervisory Committee Member*	Nomination and Remuneration Committee Member Chairperson, Audit and Supervisory Committee	5	_	_	_	0	0	_	0	_	0	_
	Keiichi Asai	8	Independent Outside Director, Audit and Supervisory Committee Member*	Chairperson, Nomination and Remuneration Committee Audit and Supervisory Committee Member	3	0	0	0	_	_	_	_	-	_	0
	Toshihiro Kuriyama	8	Independent Outside Director, Audit and Supervisory Committee Member <sup>4</sup>	Audit and Supervisory Committee Member	_	0	-	0	0	_	0	_	_	_	_
	Noriko Rzonca	*	Senior Executive Officer, CDO	Corporate DX Strategy Dept., Corporate Communication Dept., IT Initiative Dept.	-	-	-	-	_	0	0	0	-	-	0
Executive	Tomoki Iwai	8	Senior Executive Officer	Accounting Dept., Legal & General Affairs Dept.	_	_	0	_	_	_	-	_	0		_
Officers	Yoshihiko Sato	8	Senior Executive Officer	General Manager, Secretariat Office	-	_	0		_	-	-	_	_	_	0
	Hideyuki Wakao	8	Executive Officer	General Manager, Internal Auditing Office Substitute Director, Audit and Supervisory Committee Member	_	_	0	_	_		_	_	0	0	_
		8	-1-			7	8	8	6	5	3	7	3	4	4
		male Fema	ale												

1 The number of years served as director only takes into account the period following the establishment of Cosmo Energy Holdings in October 2015. The 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 for ten 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 does not represent an exhaustive list of the capabilities of each director.

3  $\odot$  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

	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Fiscal year											(¥ Million
Foreign exchange rate (¥/US\$)	100.2	109.9	120.1	108.4	110.9	110.9	108.8	106.0	112.4	135.5	144.6
Dubai crude oil price (US\$/barrel)	104.6	83.5	45.7	46.9	55.9	69.3	60.3	44.5	78.1	92.5	82.3
Net sales	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	2,729,570
Cost of sales	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	2,409,926
Selling, general and administrative expenses	129,060	129,346	119,433	120,370	128,526	135,775	137,865	131,376	143,548	156,949	170,443
Operating profit (loss)	39,715	-38,447	-29,742	92,182	111,868	94,653	13,893	101,289	235,303	163,780	149,200
Impact of inventory valuation <sup>1</sup>	16,068	-116,177	-68,703	39,400	21,044	-10,788	-52,179	20,740	72,324	21,604	-547
Operating profit (loss) excluding the impact of inventory valuation	23,647	77,730	38,961	52,782	90,824	105,441	66,072	80,549	162,979	142,176	149,747
Ordinary profit (loss)	41,847	-49,640	-36,121	81,448	116,850	96,654	16,285	97,370	233,097	164,505	161,615
Ordinary profit (loss) excluding the impact of inventory valuation	25,778	66,537	32,644	42,048	95,806	107,442	68,464	76,630	160,773	142,900	162,162
Petroleum Business	-41,394	22,067	5,784	1,770	37,776	24,964	4,378	53,317	93,225	44,072	91,266
Petrochemical Business	3,692	-6,977	4,291	22,177	30,441	15,344	5,185	-3,319	13,617	3,825	-7,764
Oil E&P Business	58,141	47,538	18,637	9,347	18,251	56,900	45,030	13,859	44,761	84,512	68,262
Renewable Energy Business <sup>9</sup>	_	_	_	_	_	—	_	4,134	3,483	2,587	2,848
Others	5,339	3,909	3,932	8,754	9,338	10,233	13,869	8,637	5,686	7,903	7,548
Profit (loss) before income taxes	49,443	-44,599	-43,797	78,565	109,274	95,966	13,913	93,648	211,593	153,263	154,952
Profit (loss) attributable to owners of parent <sup>2</sup>	4,348	-77,729	-50,230	53,235	72,813	53,132	-28,155	85,910	138,890	67,935	82,060
Profit (loss) attributable to owners of parent (excluding the impact of inventory valuation)	-6,899	3,595	-2,092	25,655	58,081	60,684	8,370	71,392	88,263	52,812	82,443
Capital expenditures	41,243	70,396	82,775	120,302	109,085	80,380	87,872	79,624	57,064	71,941	82,391
R&D expenses	3,271	3,077	3,104	4,269	4,540	4,096	4,448	3,975	4,803	5,342	5,703
Depreciation and amortization <sup>3</sup>	35,330	32,399	30,713	37,769	42,130	54,225	57,606	57,530	58,045	58,172	55,290
Cash flows from operating activities	35,837	163,384	18,427	47,625	192,634	90,450	111,733	167,445	108,361	8,122	177,944
Cash flows from investing activities	-61,007	-30,126	-32,839	-112,038	-96,432	-84,521	-84,230	-84,584	-67,511	-81,178	-32,768
Cash flows from financing activities	12,555	-178,920	32,499	9,626	-76,757	-20,480	-24,675	-80,570	-42,040	81,137	-104,178
At year-end											(¥ Million)
Total assets	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	2,212,586
Non-controlling interests <sup>4</sup>	29,214	40,326	94,665	108,063	117,468	120,785	123,047	124,173	127,771	135,485	126,253
Net worth <sup>10</sup>	231,927	167,194	108,046	164,722	238,677	281,065	239,792	324,946	456,200	527,895	601,161
Total current assets	921,790	621,578	516,254	561,604	657,160	641,731	572,619	605,808	867,983	1,036,040	1,122,740
Total current liabilities	799,199	603,860	555,519	655,473	800,146	764,734	706,080	752,488	954,675	1,012,579	1,007,628
Net interest-bearing debt⁵	723,257	597,701	666,179	727,258	635,763	644,663	628,317	556,379	503,330	581,875	501,024
Number of outstanding shares (thousands) <sup>6</sup>	847,705	847,705	84,770	84,770	84,770	84,770	84,770	84,770	84,770	88,353	88,353
Per share data <sup>7</sup>											(¥
Profit (loss) attributable to owners of parent	5.13	-91.77	-594.85	633.32	865.80	630.69	-334.84	1,025.86	1,658.64	811.15	938.11
Diluted profit attributable to owners of parent	_		_		_	594.03	_	861.16	1,389.40	726.65	
Net assets	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	6,863.55
Cash dividends	2.00	—	40.00	50.00	50.00	80.00	80.00	80.00	100.00	150.00	300.00
Ratios											
Net worth ratio (%)	13.7	11.7	7.7	10.8	14.1	16.5	14.6	19.0	23.5	24.9	27.2
Net debt-to-equity ratio (times) <sup>8</sup>	3.1	3.6	4.6	3.6	2.3	1.98	2.41	1.59	1.04	1.10	0.83
Return on equity (ROE) (%)	1.9	-39.0	-36.5	39.0	36.1	20.4	-10.8	30.4	35.6	13.8	14.5
Return on equity (ROE) (excluding the impact of inventory valuation)	-3.0	1.8	-1.5	18.8	28.8	23.4	3.2	25.3	22.6	10.7	14.6
Return on invested capital (ROIC) (%) (excluding the impact of inventory valuation)	0.8	1.8	1.5	4.4	7.8	8.0	2.2	8.0	9.5	6.1	7.6

1 The 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 include cost recovery under production sharing. In FY2011 and FY2012, depreciation and amortization include 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 interest figures are presented.

5 Net interest-bearing debt is calculated by deducting cash and deposits 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.

10 In line with the application of accounting standards for income taxes from the start of FY2024, the change in accounting policy has been applied retrospectively to financial data for FY2023, and changes have been made to financial data for FY2023 announced in May 2024.

## Share Information (as of March 31, 2024)

### Basic share information

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

### **Principal shareholders**

Name of shareholder	Number of shares held (thousands)	Shareholding ratio (%)
Iwatani Corporation	17,709	20.04
The Master Trust Bank of Japan, Ltd. (trust account)	10,504	11.88
Custody Bank of Japan, Ltd. (trust account)	5,857	6.62
The Kansai Electric Power Co., Inc.	1,860	2.10
Cosmo Energy Holdings Customers Shareholding Association	1,631	1.84
Mizuho Bank, Ltd.	1,600	1.81
Aioi Nissay Dowa Insurance Co., Ltd.	1,580	1.78
MUFG Bank, Ltd.	1,580	1.78
Sompo Japan Insurance, Inc.	1,342	1.51
Mitsui Sumitomo Insurance Company, Limited	1,250	1.41

\* Number of shares held is rounded down to the nearest thousand.

\* The shareholding ratio is calculated by deducting the number of treasury shares from the total number of outstanding shares. Treasury shares exclude those shares owned by the designated trust bank through the Board Incentive Plan (BIP) Trust.

## Corporate Data (as of March 31, 2024)

### **Company information**

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	¥46.4 billion
Description of business	Management of subsidiaries involved in oil, ranging from upstream to downstream and other businesses
Main banks	Mizuho Bank, Ltd., MUFG Bank, Ltd., and Sumitomo Mitsui Banking Corporation

## Corporate Data

Period covered	Fiscal year from April 1, 2023 to March 31, 2024 (However, the report includes some information from outside the above period.)
• Report scope	Cosmo Energy Holdings Co., Ltd. and its major consolidated subsidiaries and affiliated companies, etc. Core operating companies in this report refer to Cosmo Oil, Cosmo Oil Marketing, and Cosmo Energy Exploration & Production, while semi-core operating companies refer to Maruzen Petrochemical. *The scope of coverage for the included data is provided in the corresponding footnotes.
Publication date	Publication date: November 2024 Next report scheduled for the included data in November 2025 (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 is designed to be easily read, and further details are available on our 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.
	R website https://www.cosmo-energy.co.jp/en/ir.html
	Sustainability website https://www.cosmo-energy.co.jp/en/sustainability.html
<ul> <li>Independent assurance report</li> </ul>	Please refer to our corporate website for the Independent Assurance Report.

https://www.cosmo-energy.co.jp/content/dam/corp/jp/en/sustainability/pdf/ independent\_assurance\_report.pdf

• Caution concerning forward-looking statements

chart

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



Integrated Report (COSMO REPORT) https://www.cosmo-energy.co.jp/en/ir/library/annual.html

- Securities Report, Quarterly Results Presentation Materials, and Shareholders Report https://www.cosmo-energy.co.jp/en/ir/library.html

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

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



### COSMO ENERGY HOLDINGS CO., LTD.

Corporate Planning Department/ Sustainability Initiative Department 1-1-1, Shibaura, Minato-ku, Tokyo, Japan 105-8302

Inquiry regarding Investor Relations https://www.cosmo-energy.co.jp/en/ir/contact.html