

Cosmo Energy Holdings ESG Presentation

October 3, 2022

Hiroshi Kiriya, Representative Director, Group CEO
Takayuki Uematsu, Representative Director,
Senior Managing Executive Officer

✓ Overview

✓ Strengthening the system to
implement initiatives

P. 2 - 12

Hiroshi Kiriya,
Representative Director,
Group CEO

✓ Achieving carbon net zero

✓ Material issues for sustainable
value creation

✓ Material issues form the foundation
of business continuity planning

P. 13 - 26

Takayuki Uematsu,
Representative Director,
Senior Managing Executive Officer

✓ Towards the next Medium-Term
Management Plan

✓ Appendix

P. 27 - 31

Overview

In April 2020, the Sustainability Initiative Department was launched, and work began on establishing a structured philosophy on sustainable management



Group Management Vision

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

The basic concept of sustainability

Harmony and Symbiosis

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

Creating Future Values

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

- Environmental Initiatives -

- 1994: Launched Global Environmental Committee
- 2001: Launched Environmental Affairs Office and established the Group management vision
- 2002: Established the Cosmo Oil Eco Card Fund
- 2010: Made full-scale entry to the wind power generation business (made the former Eco Power Co., Ltd. a subsidiary)

Received high acclaim from outside parties, as a company focused on environmental issues

No.1 in the industry for six years running in the Nikkei BP Environmental Management Forum*1 Eco-brand Survey

Over 13 years from 2004 to 2016, we have clinched the No.1 industry spot for ten years*2.

In 2015, we also ranked among the top 10 across all industries (560 companies).

*1. Renamed to "Nikkei ESG Management Forum, ESG Brand Survey" from 2020.

*2. 2004 - 2006, 2008, 2011-2016

Environmental Brand Index (2015)	
Rank	Company name
1	Suntory
2	Toyota Motor
3	Panasonic
-	-
10	Cosmo Oil

Received Honorable Prize at the 28th Global Environment Awards (2019)

The Group received the award in recognition of its long-running CSR activities and the supply of environmentally friendly energy in the petroleum and non-petroleum businesses.

This is the second such award since receiving the "Award for Excellent Companies Chosen by the Global Environment Council" in the 11th Grand Prize for the Global Environment Award in 2002*3.

*3 Cosmo Oil at the time of the 11th Grand Prize.

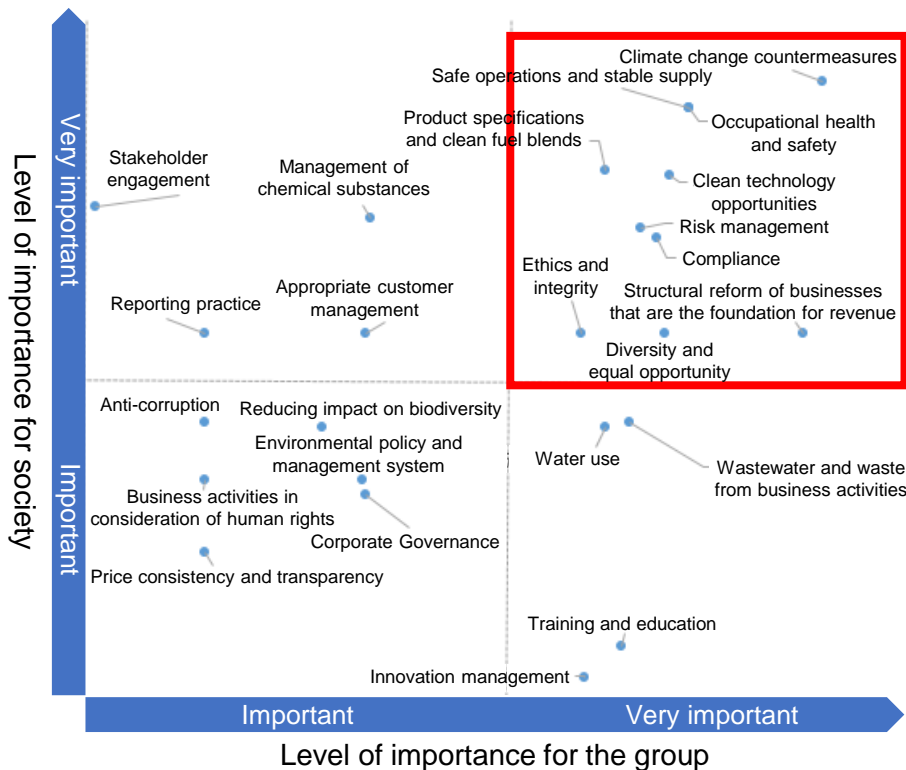


The Group's Material Issues

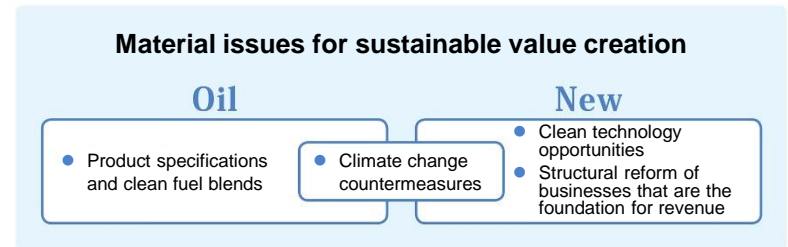


The Group has identified 10 material issues from the perspective of their important both of society and the Company
 These have been classified into “Material Issues for Sustainable Value Creation”, and “Material Issues Forming the Foundation of Business Continuity Planning

Identification of Material Issues



Material issues for sustainable value creation



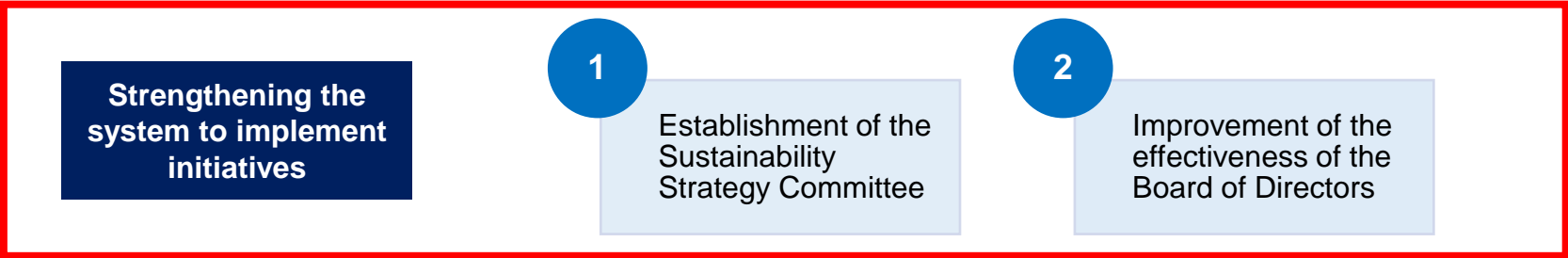
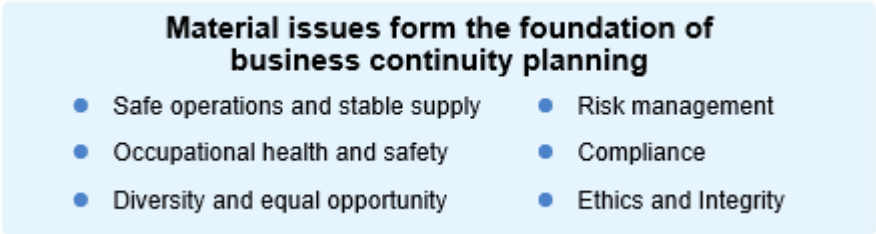
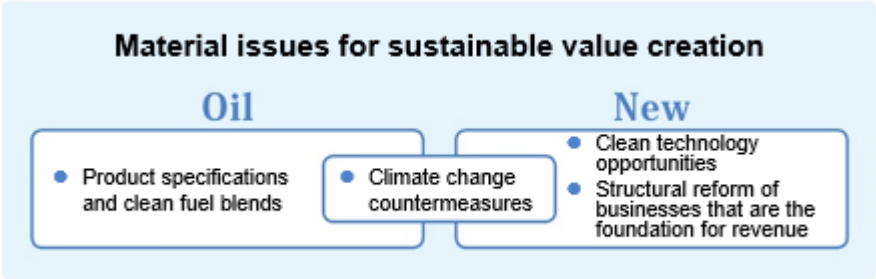
Material issues form the foundation of business continuity planning



**Strengthening the system to
implement initiatives**

The promotion structure will be strengthened as the basis for addressing the material issues

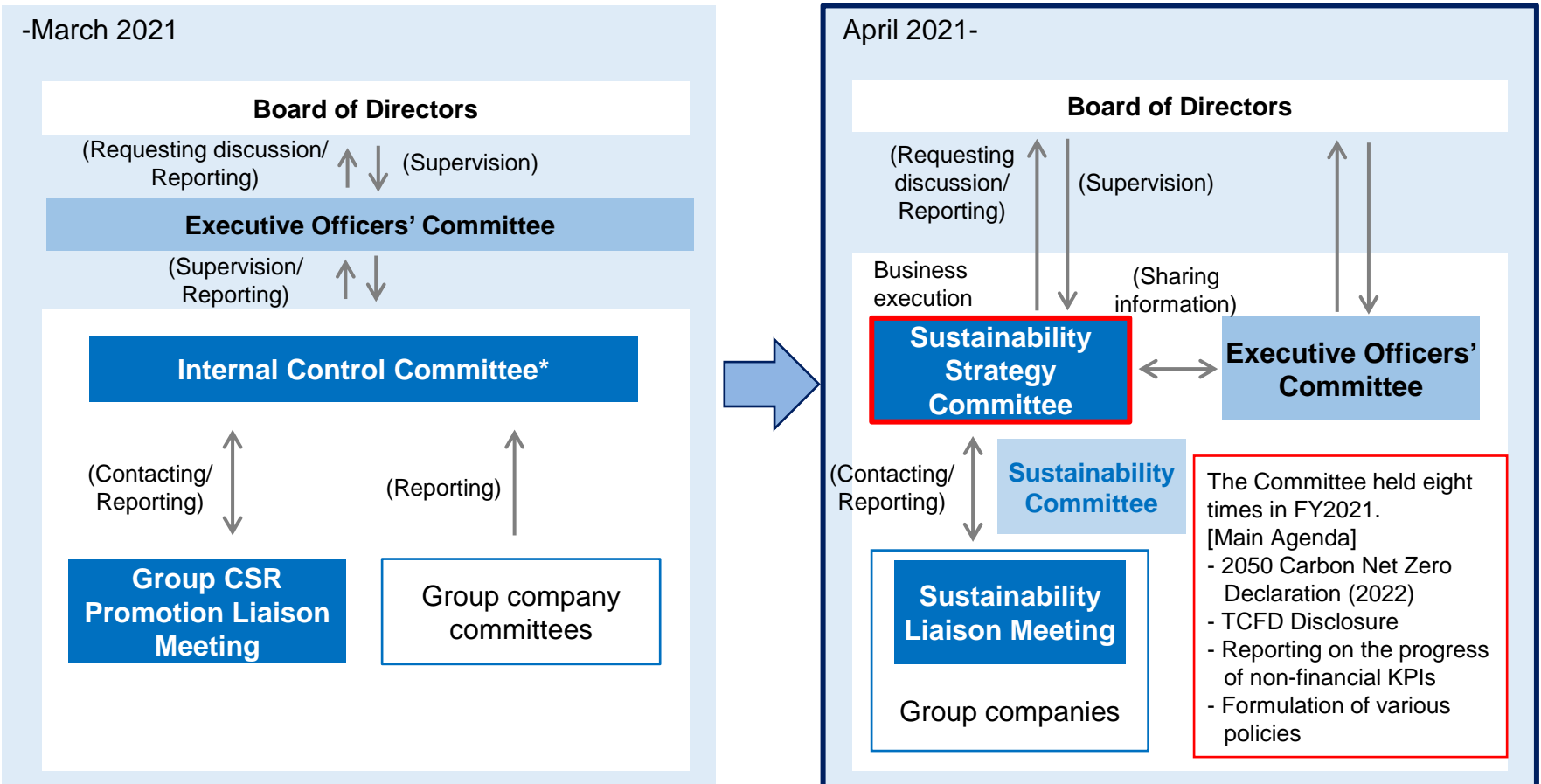
Most important material issues



Strengthening the Promotion Structure (1)

The Sustainability Strategy Committee and Sustainability Committee have been established as the authorities responsible for overseeing sustainability

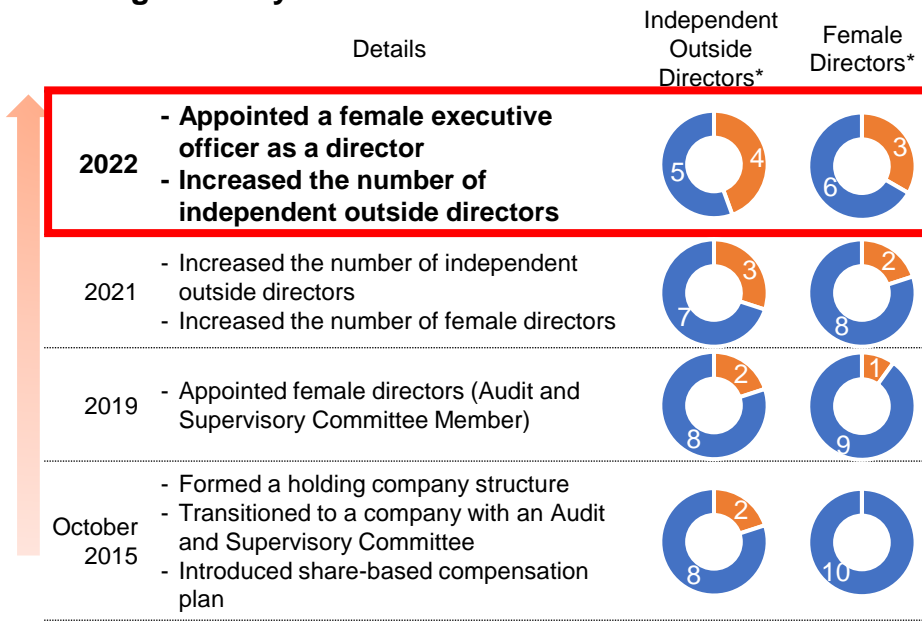
These are decision-making authorities chaired by the President and Group CEO with opportunities for discussion including with outside directors



* Safety and Risk Management Committee, Environmental and Social Initiatives Committee, Corporate Ethics and Human Rights Committee, Information Disclosure Committee

Enliven discussions on sustainability and medium- to long-term direction by ensuring diversity among directors, and revising purposes and authority of the board

Ensuring diversity



* The Board of Directors includes Audit and Supervisory Board Members

Revising purposes and authority

June 2021: Revised the purposes of the Board of Directors

- <Purposes of the Board of Directors>
- To work to achieve the **sustainable growth** of the Group and **improve its medium- to long-term corporate value.**
 - To work to ensure laws, regulations and corporate ethics are observed, and based on these efforts, to strive to ensure agile management by focusing on **determining the major direction of the Company, stakeholder engagement (including disclosure), and supervising the execution of business.**

July 2022: Major revision to authority

In keeping with the purposes of the Board of Directors, **decisions on the execution of business were delegated to the Executive Officers' Committee in a sweeping manner** to speed up management.

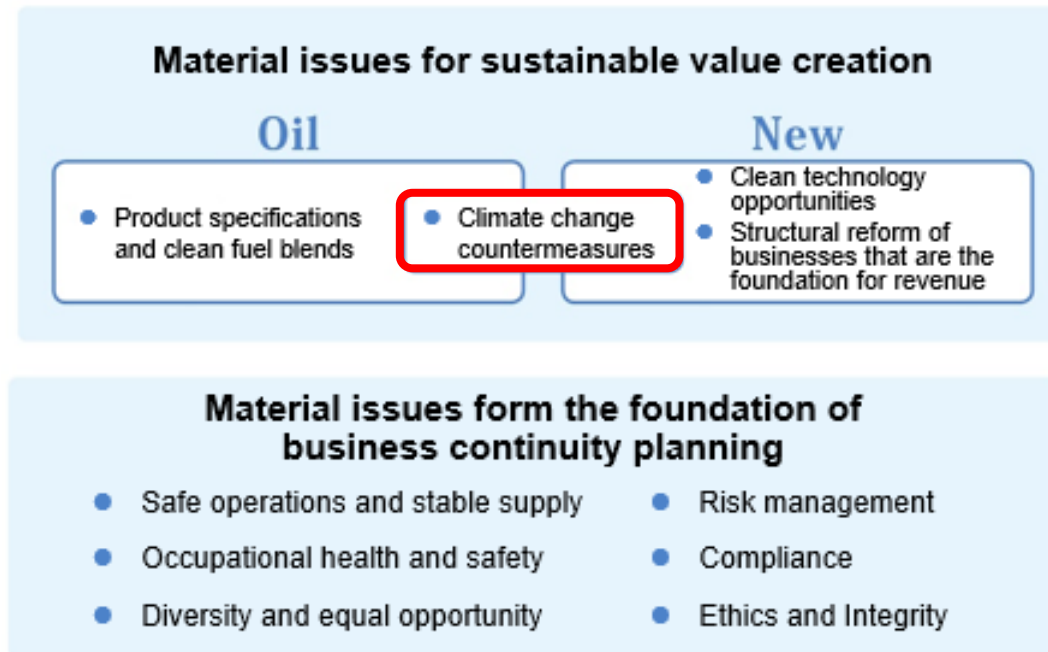


Enlivening Discussion on Sustainability and Medium- to Long-term Direction

Fiscal Year	Main Agenda
FY2022 (plan)	Formulating the Seventh Consolidated Medium-Term Management Plan (various themes discussed at nearly every Board of Directors meeting)
FY2021	Sustainability (carbon net zero, TCFD, etc.) and long-term direction

Achieving carbon net zero

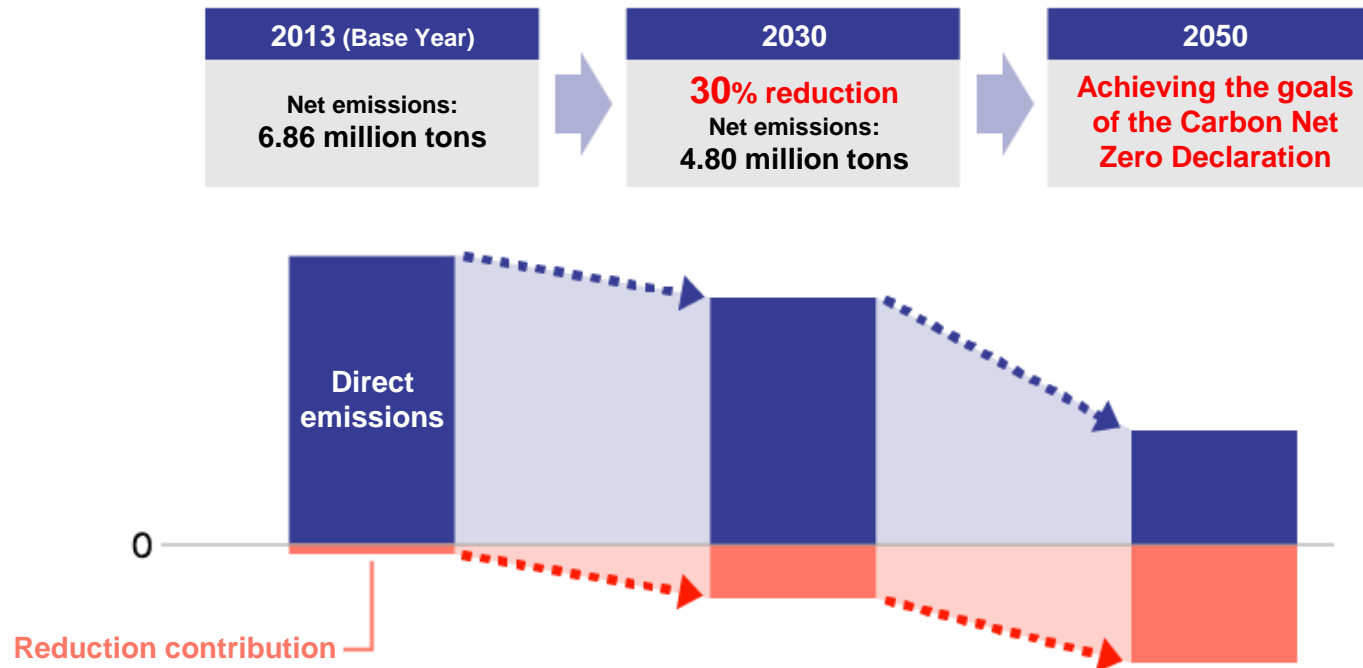
As a company responsible for the stable supply of energy, **recognize climate change countermeasures as the most important material issue** from the perspectives of both society and the Company
Aim to solve social issues by addressing them from both perspectives of "Oil & New"



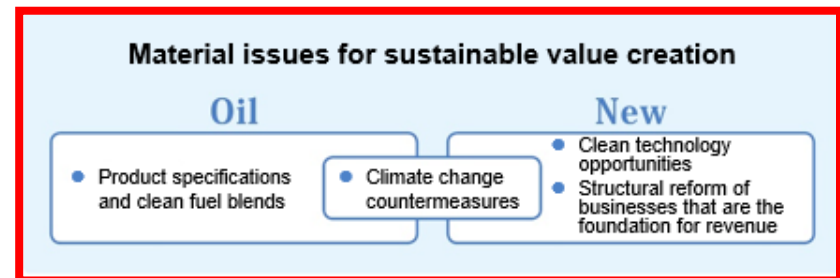
By continuing to fulfill our responsibilities for stable supply while tackling the switch to decarbonized energy and negative emission technologies, we will aim to **reduce Scope 1 + Scope 2 emissions by 30%* by the year 2030 as an interim point and achieve net zero emissions by 2050**

* Compared to FY2013

Emission Reduction Targets Aimed at Achieving Net Zero Carbon



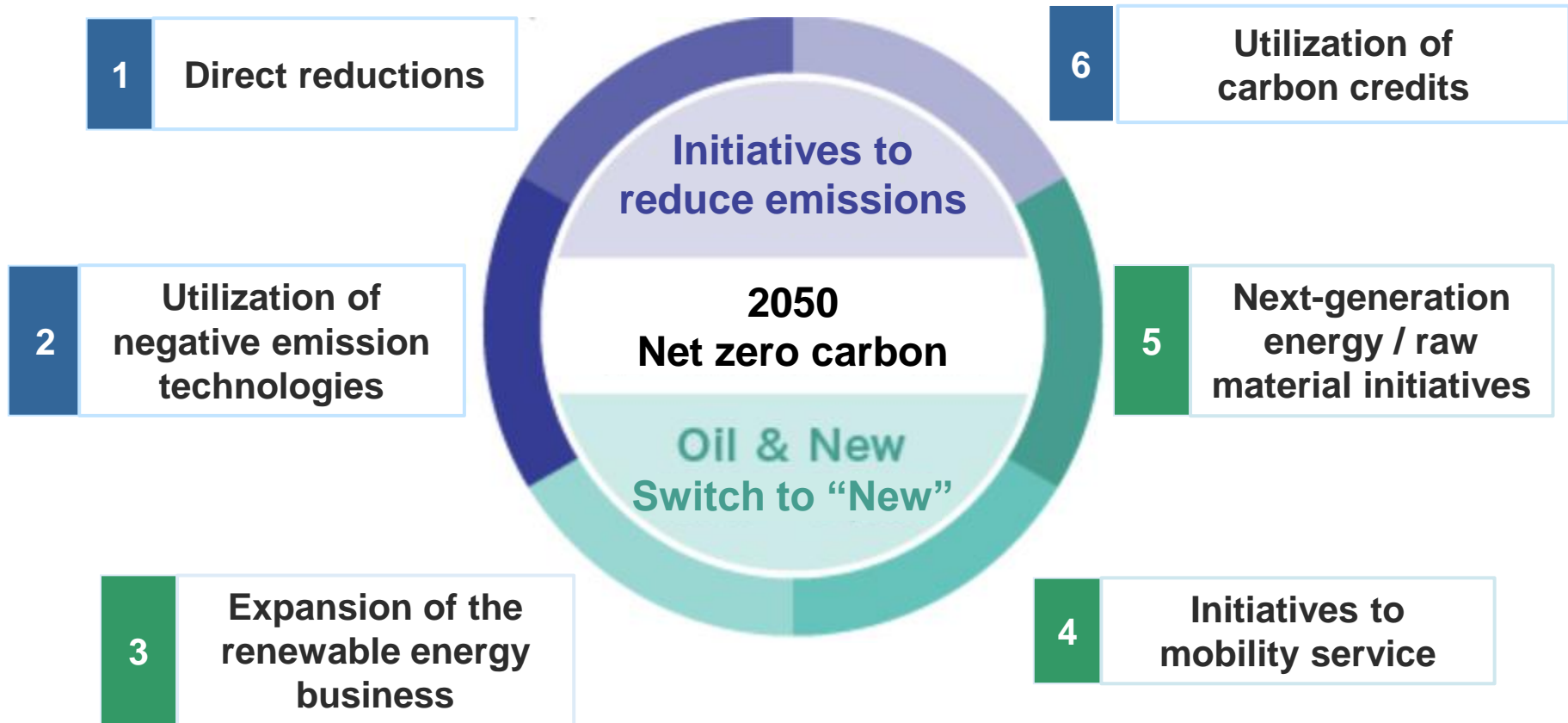
Material issues for sustainable value creation



Material issues form the foundation of business continuity planning

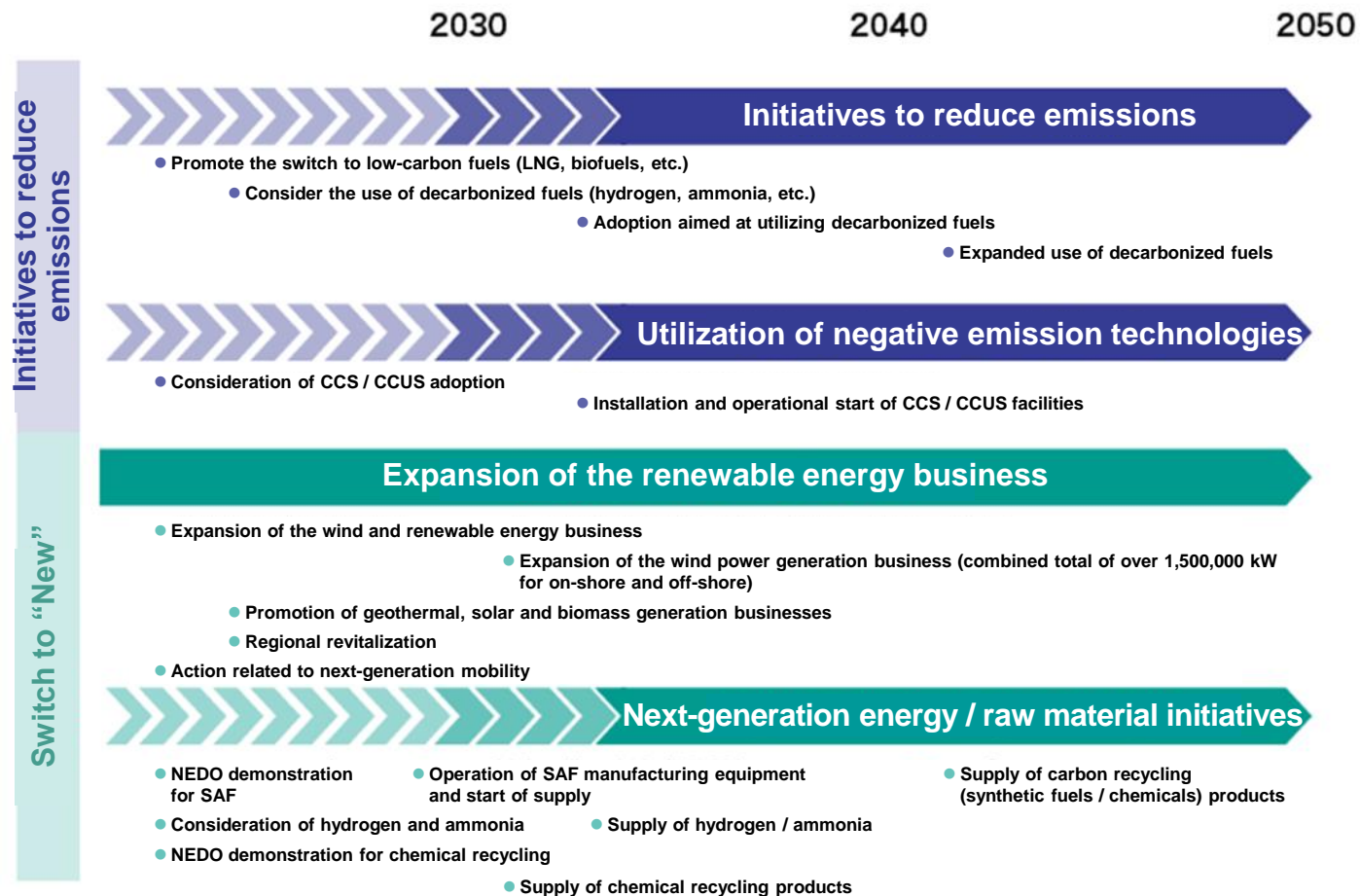
- Safe operations and stable supply
- Occupational health and safety
- Diversity and equal opportunity
- Risk management
- Compliance
- Ethics and Integrity

Six priority themes have as initiatives to achieve net zero carbon by 2050



Aim for achievement in terms of both “Initiatives to reduce emissions” and “Switch to NEW”

Basic Approach and Process of the Roadmap

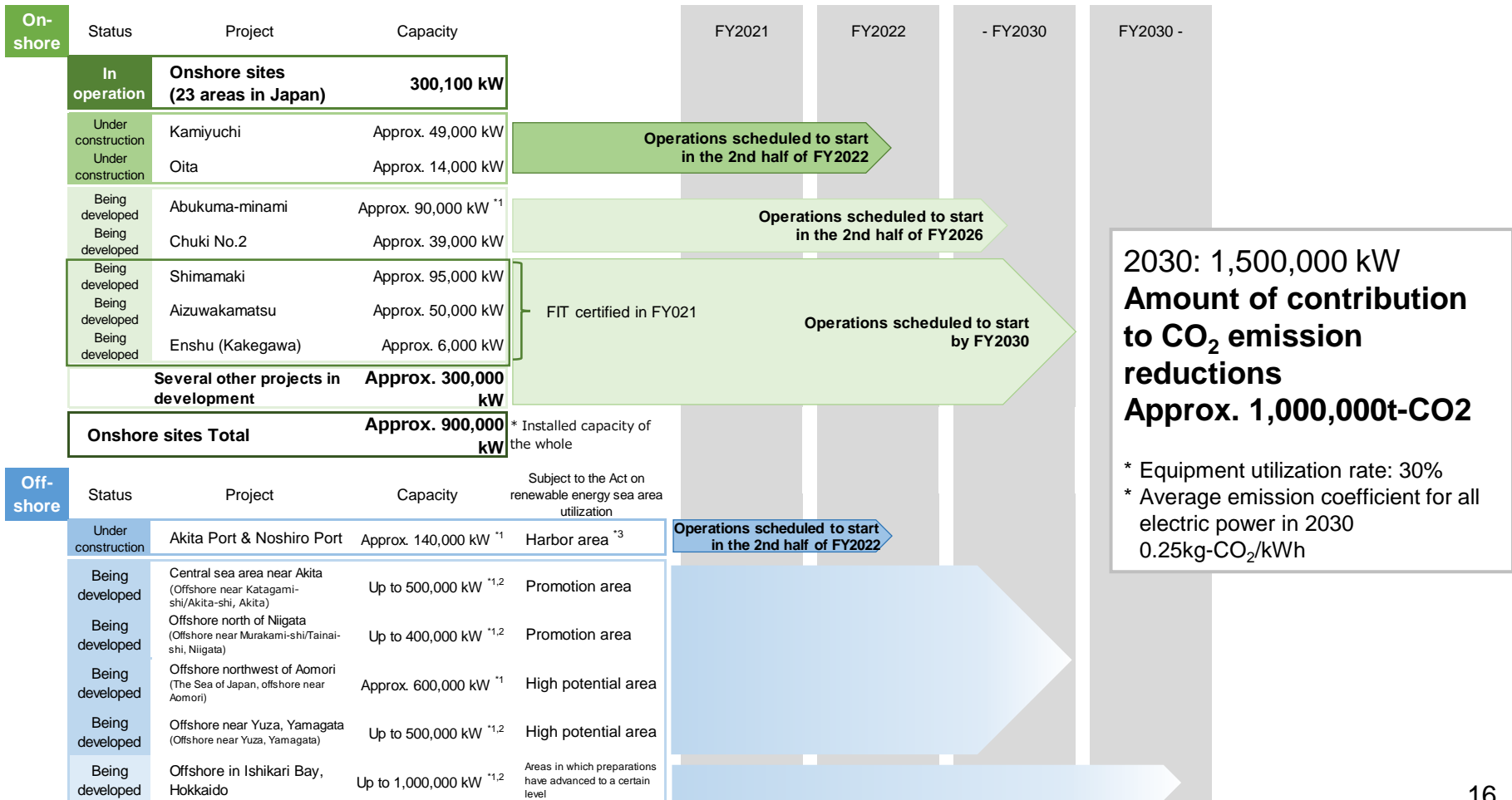


Climate Change Countermeasures: Expansion of the renewable energy business



Expand the wind power generation business as an expansion of the renewable energy business

✓ Continue to expand the scale of wind power generation toward the target of over 1.5 million kW in FY2030 (approximately 900,000 kW of onshore and 600,000 kW of offshore)

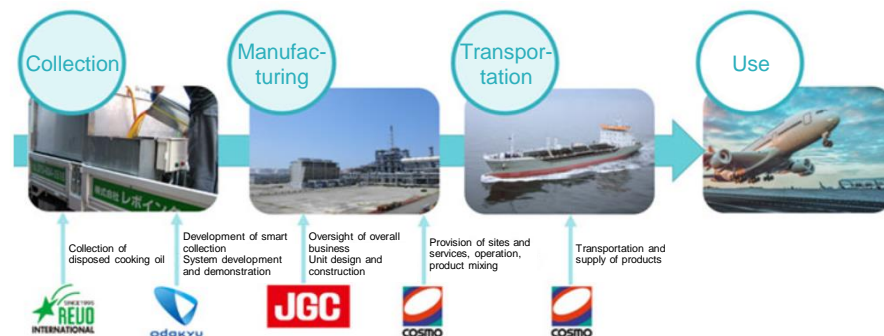


Climate Change Countermeasures: Next-generation energy / raw material initiatives

Promote sustainable aviation fuel (SAF) as next-generation energy development
The supply target of SAF for 2030 has been set at 300,000 KL per year

(1) SAF made from disposed cooking oil as a raw material

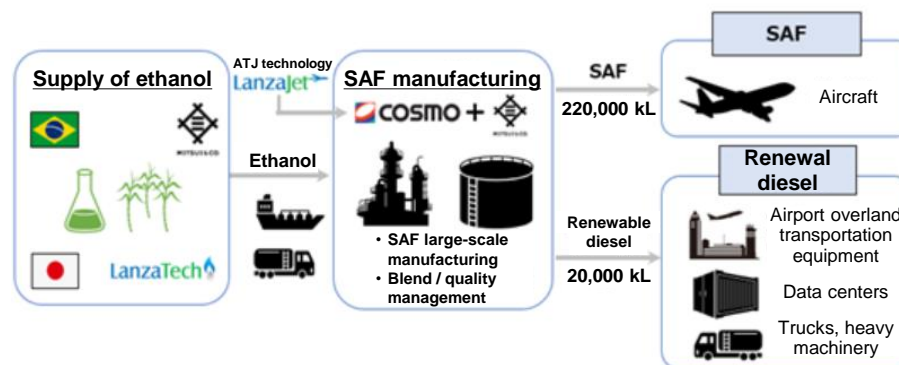
In the process of considerations, with a view to producing and supplying 30,000 KL per year (Adopted as a NEDO project. Production and supply are scheduled to start in FY2025)



(2) SAF using bioethanol as a raw material

Launched a joint study with Mitsui & Co., Ltd. (Aiming to start manufacturing and supply by FY2027), aim to manufacture and supply 220,000KL per year.

* LanzaJet, Inc., a US company in which Mitsui & Co., Ltd. has a stake, owns the Alcohol to Jet (ATJ) technology that provides an advantage to the large-scale production of SAF.



Climate Change Countermeasures: Utilization of negative emission technologies

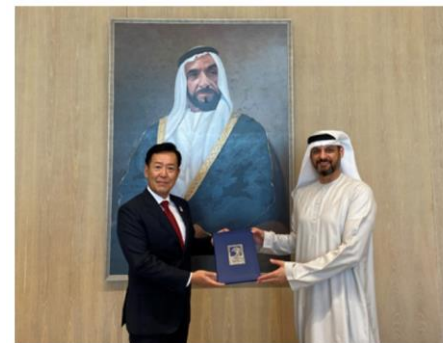


Maintain strong relationship of trust with the Emirate of Abu Dhabi and contribute to the further strengthening of bilateral ties with Japan

(1) Joint venture in the field of decarbonization, including CCS/CCUS

Began a joint investigation with the Abu Dhabi National Oil Company (ADNOC) for the exploration of technologies that can contribute to decarbonization and a feasibility assessment regarding CCS/CCUS*1 in the Emirate of Abu Dhabi.

*1 CCS: Carbon dioxide Capture and Storage
CCUS: Carbon dioxide Capture, Utilization and Storage



Right: Mr. Yaser Almazrouei, Upstream Directorate,
Abu Dhabi National Oil Company
Left: Mr. Katsushi Nishi, President, Representative Director,
Cosmo Energy Exploration & Production Co., Ltd.

(2) Concluded a purchase agreement for blue ammonia*2

Cosmo Oil has purchased blue ammonia to be shipped on a trial basis by Fertiglobe*3, which produces the blue ammonia at its existing production facilities by separating and capturing the carbon dioxide emitted during ammonia production and storing it underground.

*2 Although the product is derived from fossil fuels, when the ammonia is manufactured, the CO₂ that is emitted is separated and captured, reducing the CO₂ released into the atmosphere.

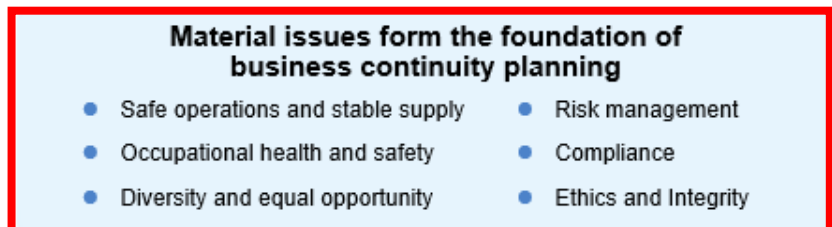
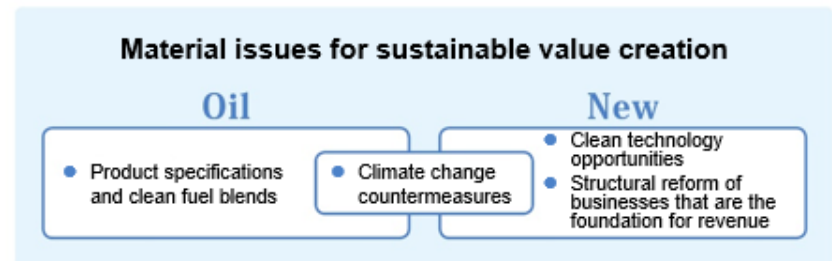
*3 Joint venture company between Abu Dhabi National Oil Company and the Netherlands-based OCI.

(3) Signed a memorandum of understanding with Masdar*4 to consider collaboration

Signed a MOU to study collaboration in the field of decarbonization such as hydrogen energy, fuel ammonia, CCS/CCUS, etc., in addition to offshore wind power generation business.

*4 A wholly owned subsidiary of Mubadala Investment Company, a strategic investment company of the Abu Dhabi government and one of the leading companies in the renewable energy sector.

Material issues form the foundation of business continuity planning



Define a human resource utilization policy, and undertake various human resource development measures, including measures to empower diverse human resources

Human resource utilization policy and specific examples

Promoting participation and advancement for diverse human resources

- Respecting diverse values and creating an environment in which all employees are able to fully demonstrate their capabilities and are treated fairly regardless of age, gender, nationality, job category, organization or career

Encouraging employees to demonstrate their capabilities through a job-oriented system

- A job-oriented system for managers has been introduced to clarify roles, responsibilities and goals, and to strengthen expertise.

Promoting self-directed growth

- Enhancement of the job challenge system (in-house recruitment system)
- Career design training

Promoting the enhancement of individuals

- Strengthening management capabilities

Employees' wellness management

- Employees' wellness in mind and body and an environment that allows them to maximize their abilities are indispensable to the safe, reliable supply of high-quality products and services.
- Implement various measures to promote a healthy work-life balance (balancing childcare or family care with work responsibilities, etc.), and promote reductions in long working hours.
- Certified under the 2022 Health & Productivity Management Outstanding Organizations (Large Enterprise Category), which recognizes companies making excellent efforts in health and productivity management, for the fourth year running.

External evaluations

Employees' wellness management



Promoting the empowerment of female employees in both recruitment and promotions as an initiative to encourage diversity

Promoting the empowerment of female employees

- Set the empowerment of female employees as a priority issue for achieving diversity
- Continued to adopt a medium- to long-term perspective while setting short-term targets of **50% of new graduate hires being women**, and **6% of managers filled by female employees** (April 2023)
- Implemented workstyle reforms through flex time and telework systems, provided comprehensive support for work-life balance beyond statutory requirements, worked to raise awareness of joint participation by men and women, and was selected as a Nadeshiko Brand for FY2021

External evaluations

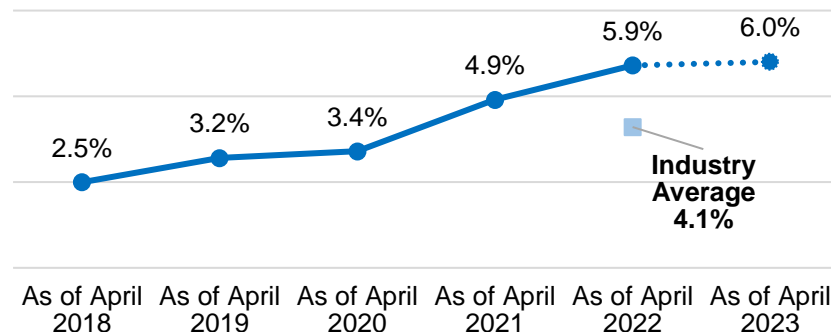
Empowerment of female employees



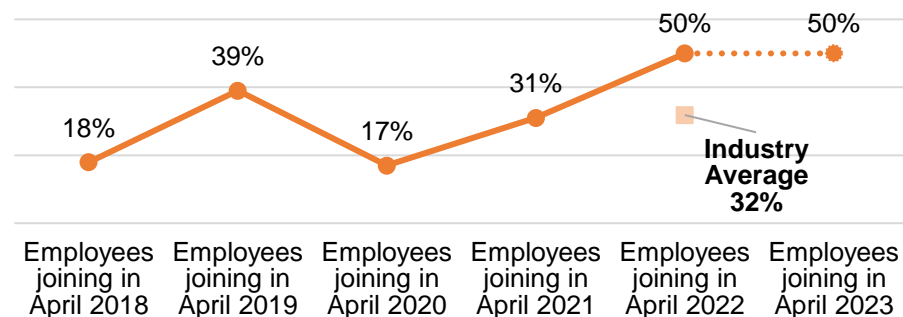


2022 CONSTITUENT MSCI日本株
女性活躍指数 (WIN)

Trend of women in management positions



Trend of new graduate hires who are women



* Industry average: In-house calculations from publicly available data

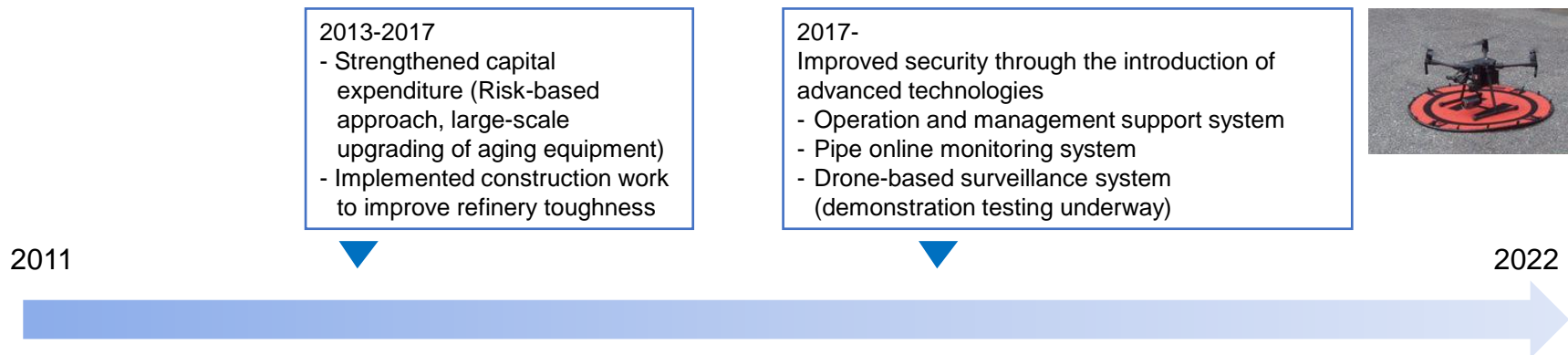
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In response to an LPG explosion and fire incident that occurred during the Great East Japan Earthquake in March 2011, **we again revised initiatives aimed at safe operations and stable supply**

Today, over a decade since the incident occurred, ongoing improvements are still being promoted along the themes of autonomous safety management activities, enhancing measures to develop specialized human resources, measures to prevent major accidents, and Implementation of advanced technology

Major Initiatives Since 2011

Equipment-based Initiatives Procedure-based Initiatives



2013-2017
 - Strengthened capital expenditure (Risk-based approach, large-scale upgrading of aging equipment)
 - Implemented construction work to improve refinery toughness

2017-
 Improved security through the introduction of advanced technologies
 - Operation and management support system
 - Pipe online monitoring system
 - Drone-based surveillance system (demonstration testing underway)



August 2011
 Recurrence prevention measures formulated

July 2013
 Production system at the Chiba Refinery restored to the same level as prior to the Great East Japan Earthquake

2016
 Introduced OMS to ensure safe operations and stable supply at exceeding global standards, and developed common rules for refineries

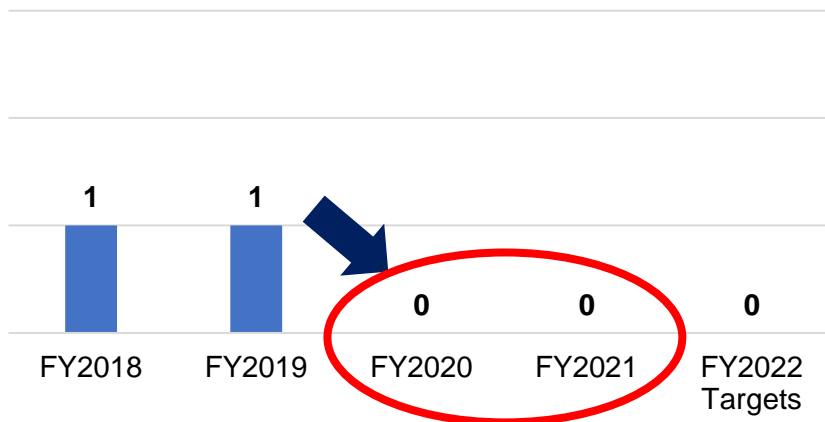


* OMS: Operation Management System

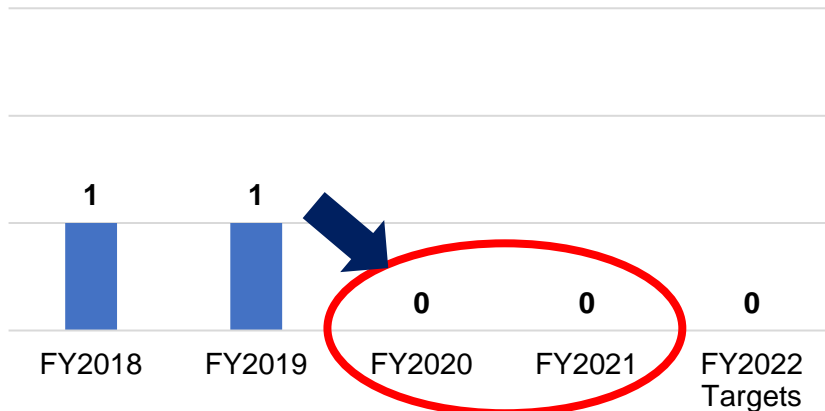
Due to initiatives pursued from 2011 onwards, **there have been 0 serious work-related accidents or serious accidents** for two years running

In 2021 the Chiba Refinery obtained **certification as a super nintei jigyo**, followed by the Yokkaichi Refinery in 2022

Trend of serious work-related accidents



Trend of serious accidents



Certified as a certified business operator (tokutei nintei jigyo / super nintei jigyo)

A special certification program where the Ministry of Economy, Trade and Industry certifies businesses which have achieved high-level voluntary safety activities, through activities such as the utilization of IoT and big data, high-level risk assessment, and the third-party evaluation of safety capabilities.



Category	Super Nintei certification program	Conventional certification program
Period of continuous operation	Arbitrary with an upper limit of 8 years (The business operator is allowed to set the period on their own in accordance with risks.)	Fixed (2 years/4 years)
Completion inspection/safety inspection methods	Wider inspection method options (to be determined by the business operator)	Method determined by the Minister of Economy, Trade and Industry
Equipment renewal (Same specifications)	Prior permission not needed in a wider range	Prior permission required



Chiba Refinery
(Certified April 2021)



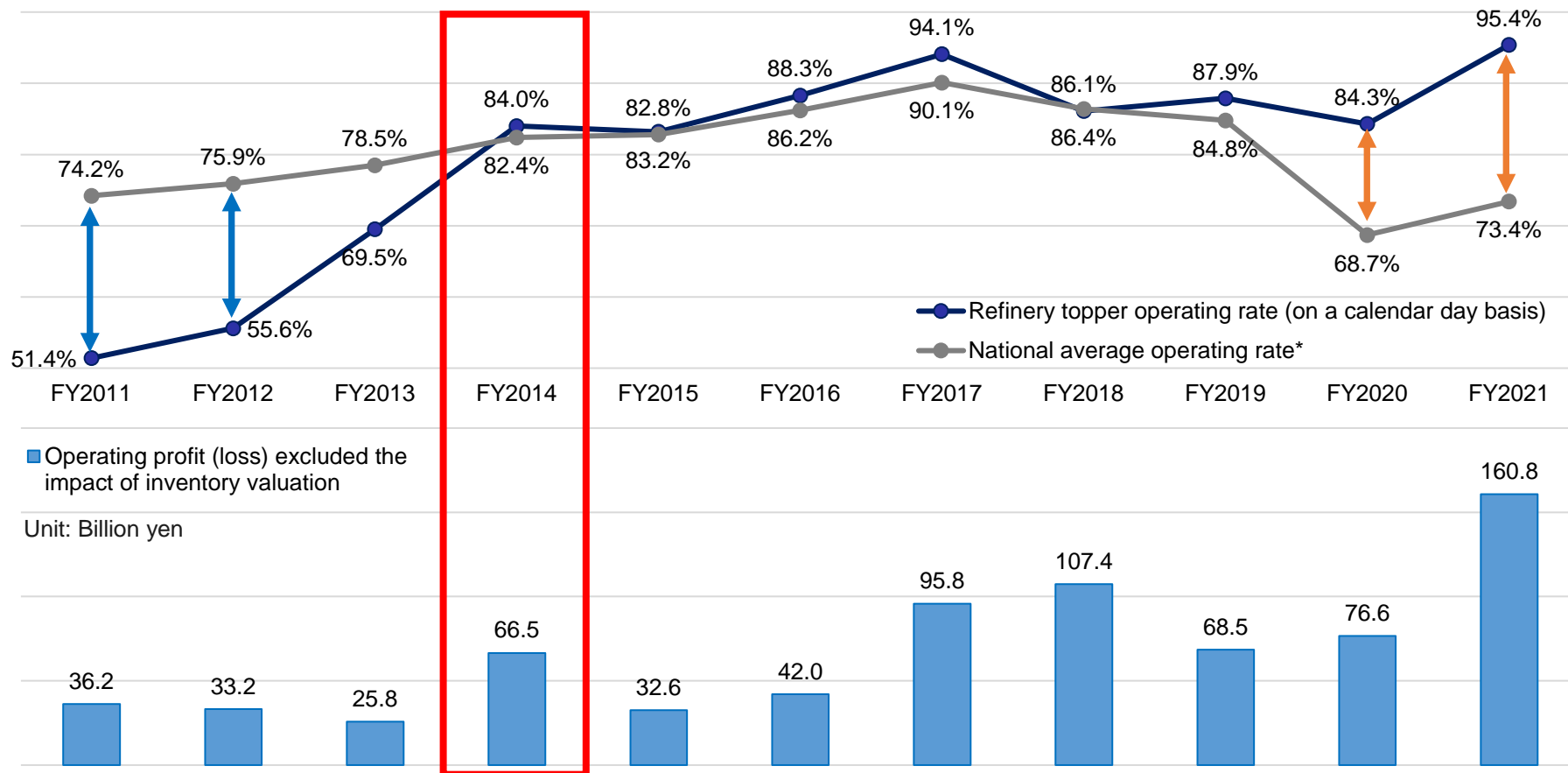
Yokkaichi Refinery
(Certified August 2022)

Safe operations and stable supply



Initiatives aimed at safe operations and stable supply **also have a positive impact on the operating rate of refineries**

Due to supply to Kygnus Sekiyu and other factors in addition to shortening shutdown periods due to failures, an operating rate that far exceeds the industry average has been achieved

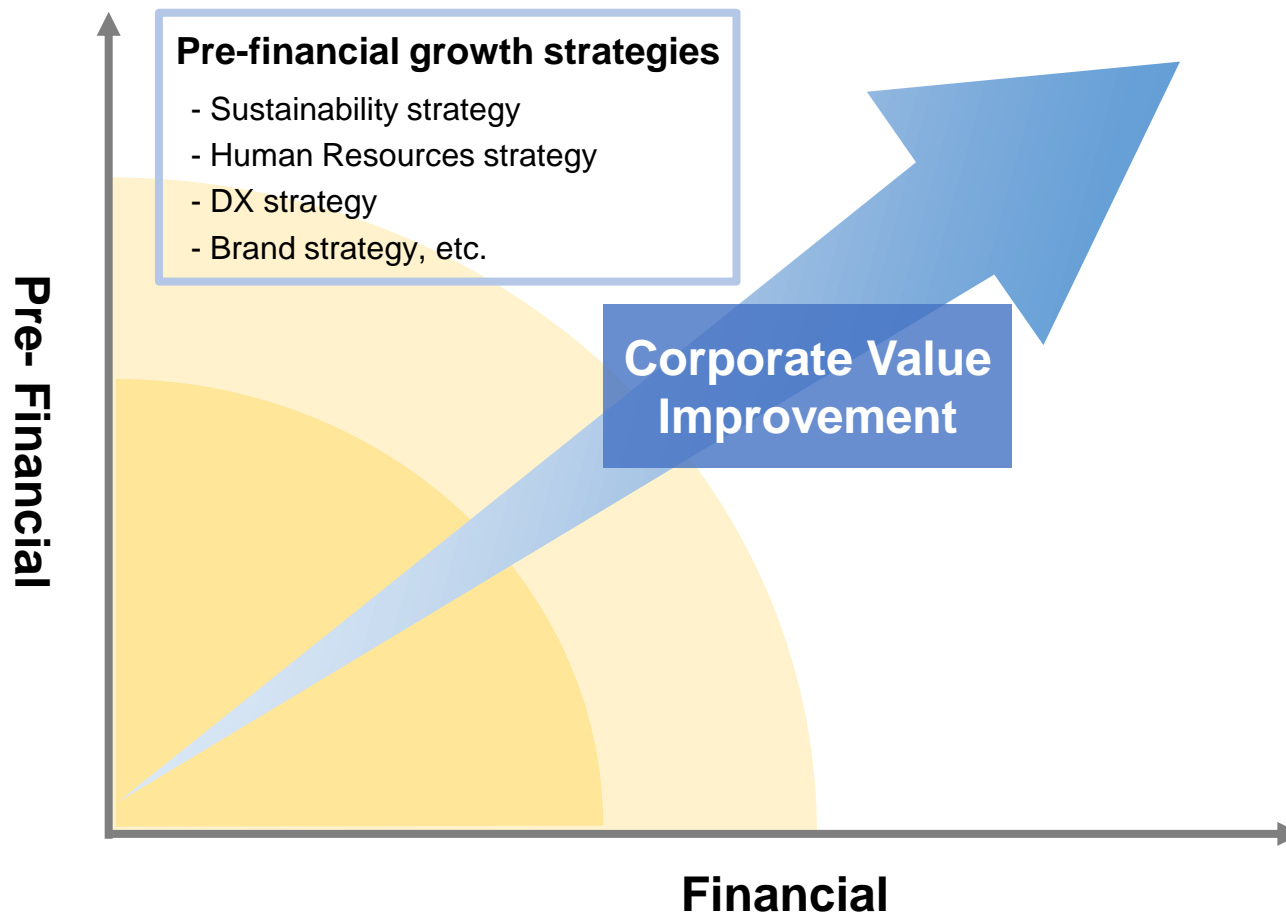


* Source: Statistics from the Petroleum Association of Japan

Towards the next Medium-Term Management Plan

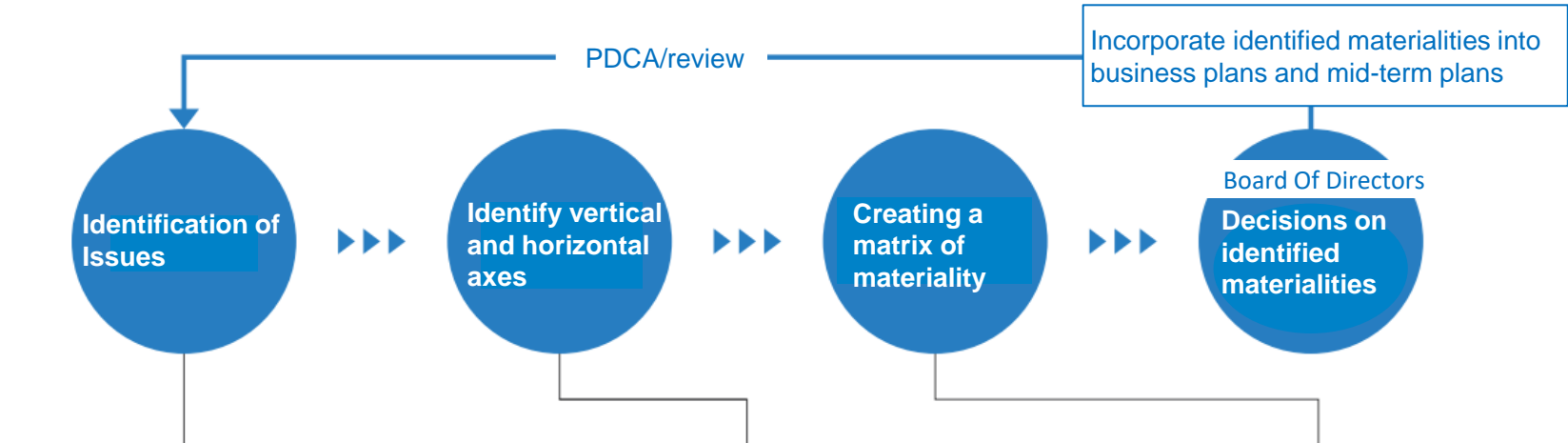
Organizing the relationship between financial and pre-financial aspects and developing the next Medium-Term Management Plan

Seventh Consolidated Medium-Term Management Plan



Appendix

We implemented the following steps while hearing to the opinions of stakeholders



Selecting candidate material issues

After comprehensive consideration based on the 33 topics included in the GRI Standards, 154 candidate tasks were selected from the SDGs, the themes that the DJSI, FTSE, and MSCI require the energy industry to work on, the themes the industry has identified itself to work on, and other themes. We consolidated these tasks to create a list of 41 candidate material issues.

Horizontal axis:

We identified the material issues which are important for us.

We considered workshops conducted by the Directors, the Group's Management Vision, Code of Conduct and the content of various initiatives when placing material issues on the horizontal axis to identify their importance to the Group.

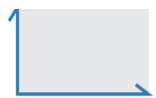
Vertical axis:

We identified the material issues which are important for society.

We evaluated material issues to place them on the vertical axis based on evaluations from an array of rating agencies, information from our peers in the industry, the results of consumer surveys and employee questionnaire surveys, interviews with investors, dialogue with experts, and other information.

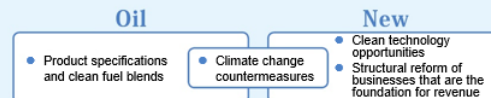
We **created a matrix** with the **importance of issues for us** as the horizontal axis and the **importance of issues for society** as the vertical axis and plotted the positions of the material issues.

Create Matrix



Most important material issues

Material issues for sustainable value creation



Material issues form the foundation of business continuity planning

- Safe operations and stable supply
- Occupational health and safety
- Diversity and equal opportunity
- Risk management
- Compliance
- Ethics and Integrity

Executives' Remuneration Systems

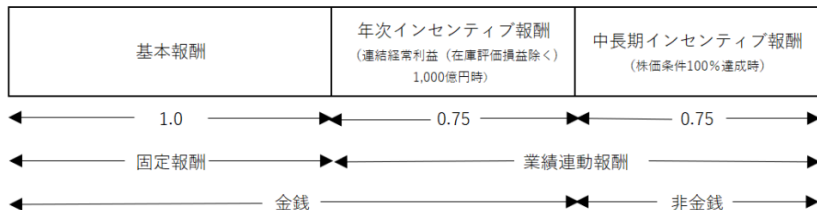


In securities reports we made detailed disclosures regarding remuneration systems at the holding company and our core operating companies

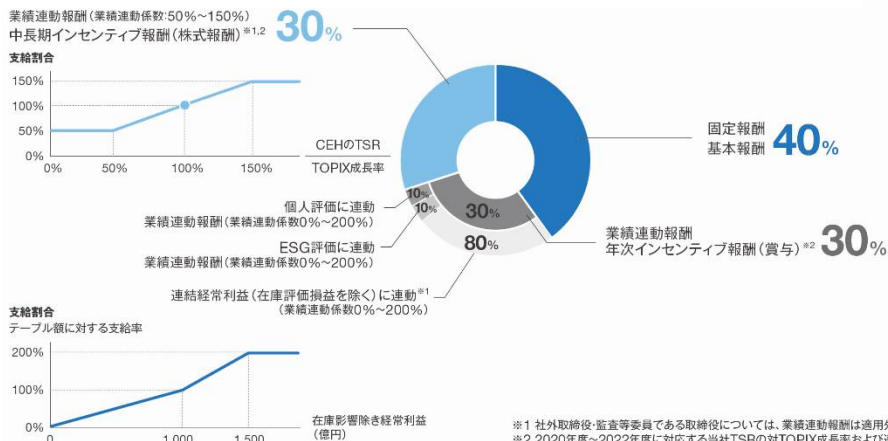
To promote ESG initiatives, **from fiscal 2022 the officer remuneration system was added to the companywide ESG assessment**

Securities report (Only in Japanese, excerpt)

※ご参考：業務執行役員の報酬体系のイメージ



Executives' Remuneration Systems (Only in Japanese, excerpt)



	役位	A. 役位別乗数	B. 役位別上限額
コスモエネルギーホールディングス㈱	代表取締役会長	0.03744%	74,880千円
	代表取締役社長 社長執行役員	0.03744%	74,880千円
	取締役副社長執行役員	0.02534%	50,688千円
	取締役専務執行役員	0.01901%	38,016千円
	取締役常務執行役員	0.01670%	33,408千円
コスモ石油㈱	取締役執行役員	0.01382%	27,648千円
	代表取締役社長 社長執行役員	0.02218%	44,352千円
	取締役副社長執行役員	0.01786%	35,712千円
	取締役専務執行役員	0.01562%	31,248千円
コスモ石油マーケティング㈱及びコスモエネルギー開発㈱	取締役常務執行役員	0.01454%	29,088千円
	取締役執行役員	0.01210%	24,192千円
	代表取締役社長 社長執行役員	0.01901%	38,016千円
	取締役常務執行役員	0.01454%	29,088千円
	取締役執行役員	0.01210%	24,192千円

Recent topics

August 2021

NEDO selected the “establishment of a supply chain model for biojet fuel production from domestic waste cooking oil” adopted as a project

March 2022

Joined "ACT FOR SKY," an organization pursuing initiatives for the commercialization of domestically produced SAF

Basic agreement regarding consideration of collaboration in a hydrogen business with Iwatani Corporation

May 2022

Commercialized Japan's first diesel oil with a biomass mark that contains at least 80% plant-derived base oil

June 2022

Concluded a purchase agreement of blue ammonia with Abu Dhabi National Oil Company

Completed switch to electricity that is virtually all from renewable energy sources at 603 directly operated service stations

Began supply of electricity that is virtually all from renewable energy sources to 52 facilities including Chigasaki City Hall, elementary schools and junior high schools

July 2022

Began joint study into domestically produced SAF manufacturing business utilizing Alcohol to Jet (ATJ) technology

Announced 2030 supply target (300,000 KL) for domestic SAF

(Reference) The Sixth Consolidated Medium-Term Management Plan Basic Policy



- Oil & New -

“Oil” Increase the profitability of the petroleum business by, for example, complying with the IMO regulations and taking the lead in the supply of clean marine fuels.

➔ Strengthen the financial condition based on earning power.

“New” Invest in wind power generation and other businesses that will lead the next growth stage.

➔ Contribute to the achievement of SDGs through business activities.

Secure profitability to enable reinvestment

- ✓ Firm a system of safe, stable operation in the oil refining business
- ✓ Take action ahead of the IMO regulations
 - ➔ Transform to bottomless refineries and increase profitable products*.
- * Aim to raise the competitiveness of refineries that supply only relatively high added value petroleum products.
- ✓ Strengthen the “Vehicle life” business
- ✓ Achieve synergy with petrochemical business
- ✓ Steadily recover the investment in the Hail Oil Field

Expand growth driver toward the future

- ✓ Strengthen petrochemical business and increase its product-line
- ✓ Early development of offshore wind power
- ✓ Explore new businesses for future growth in domestic and overseas markets (Asia / Abu Dhabi)

Improve financial condition

- ✓ Increase shareholders’ equity
- ✓ Strengthen cash management
- ✓ Careful selection of investments with an eye on the long-term environment
 - ➔ Early achievement of management goals

Strengthen Group management foundation

- ✓ Implement sustainable management
 - Pursue the sustainability of society and the Group
 - Improvements ESG key factors
 - ➔ Develop and implement the medium-term sustainability management plan (FY2018 - FY2022)
- ✓ Increase productivity through work-style and operational innovation
 - Promote diversity
 - Thoroughly increase operation efficiency using RPA (Robot process automation) and AI

Disclaimer FORWARD-LOOKING STATEMENTS

Certain statements made and information contained herein constitute "forward-looking information" (within the meaning of applicable Japanese securities legislation). Such statements and information (together, "forward looking statements") relate to future events or the Company's future performance, business prospects or opportunities. Forward-looking statements include, but are not limited to, statements with respect to estimates of reserves and or resources, future production levels, future capital expenditures and their allocation to exploration and development activities, future drilling and other exploration and development activities, ultimate recovery of reserves or resources and dates by which certain areas will be explored, developed or reach expected operating capacity, that are based on forecasts of future results, estimates of amounts not yet determinable and assumptions of management.

All statements other than statements of historical fact may be forward-looking statements. Statements concerning proven and probable reserves and resource estimates may also be deemed to constitute forward-looking statements and reflect conclusions that are based on certain assumptions that the reserves and resources can be economically exploited. Any statements that express or involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions or future events or performance (often, but not always, using words or phrases such as "seek", "anticipate", "plan", "continue", "estimate", "expect", "may", "will", "project", "predict", "potential", "targeting", "intend", "could", "might", "should", "believe" and similar expressions) are not statements of historical fact and may be "forward-looking statements". Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in such forward-looking statements.

The Company believes that the expectations reflected in those forward-looking statements are reasonable, but no assurance can be given that these expectations will prove to be correct and such forward-looking statements should not be unduly relied upon. The Company does not intend, and does not assume any obligation, to update these forward looking statements, except as required by applicable laws.

These forward-looking statements involve risks and uncertainties relating to, among other things, changes in oil prices, results of exploration and development activities, uninsured risks, regulatory changes, defects in title, availability of materials and equipment, timeliness of government or other regulatory approvals, actual performance of facilities, availability of financing on reasonable terms, availability of third party service providers, equipment and processes relative to specifications and expectations and unanticipated environmental impacts on operations. Actual results may differ materially from those expressed or implied by such forward-looking statements.