

# Results for First Quarter Fiscal 2023

August 10, 2023

Cosmo Energy Holdings Co., Ltd.

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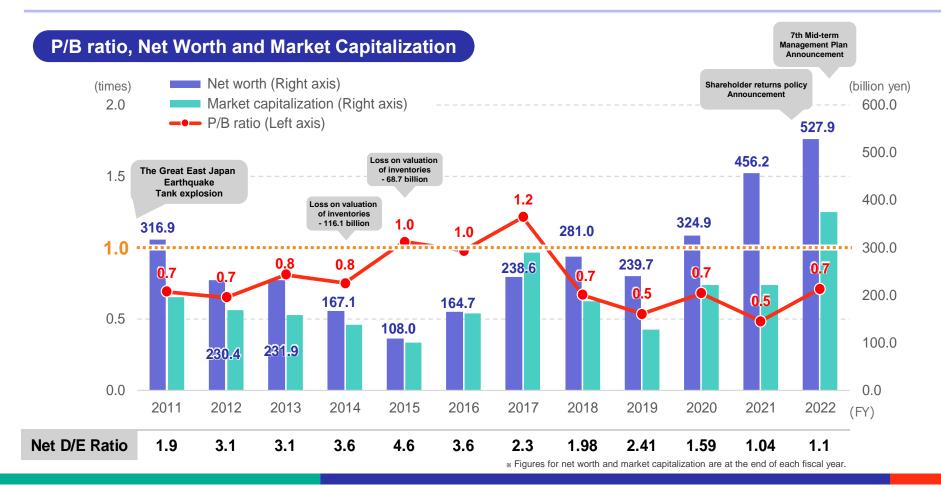


# Initiatives to Enhance Enterprise Value



# Analysis of current status / Trends in Financial Health and P/B ratio

- Financial health damaged by the impact of the accident caused by the Great East Japan Earthquake and the large-scale inventory valuation losses recovered to a certain level.
- Although stock price rise substantially due to the announcement of our policy on shareholder returns in May 2022, and due
  to the announcement of 7th mid-term management plan including our capital policy in March 2023, P/B ratio is at 0.7 times.

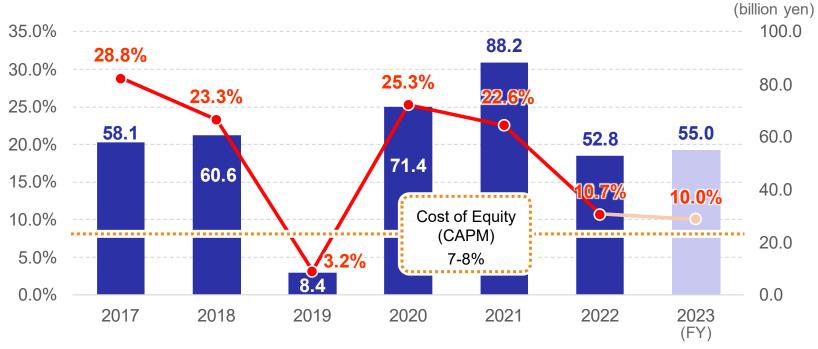




# Analysis of current status / Trends in ROE of and the Cost of Equity

- Although we generally achieve ROE in excess of the cost of equity (CAPM), current P/B ratio is under 1 times.
- Work on both medium to long-term and short-term measures to improve P/B ratio.

#### **ROE** excluding the impact of inventory valuation



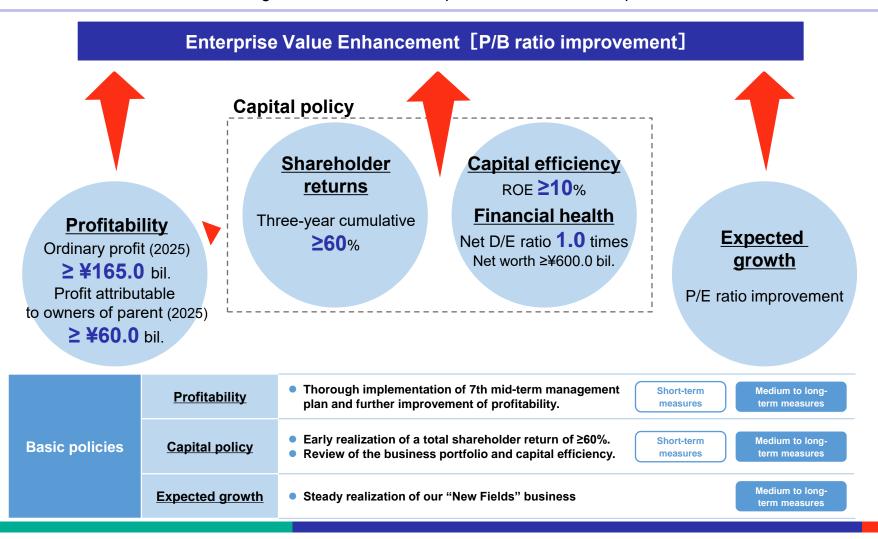
Profit attributable to owners of parent (excl. the impact of inventory valuation)

---ROE (excl. the impact of inventory valuation)



# Initiatives to Enhance Enterprise Value

 We have established the following basic policies for each of the initiatives to increase enterprise value outlined in the 7th Medium-Term Management Plan and will implement and examine specific measures.



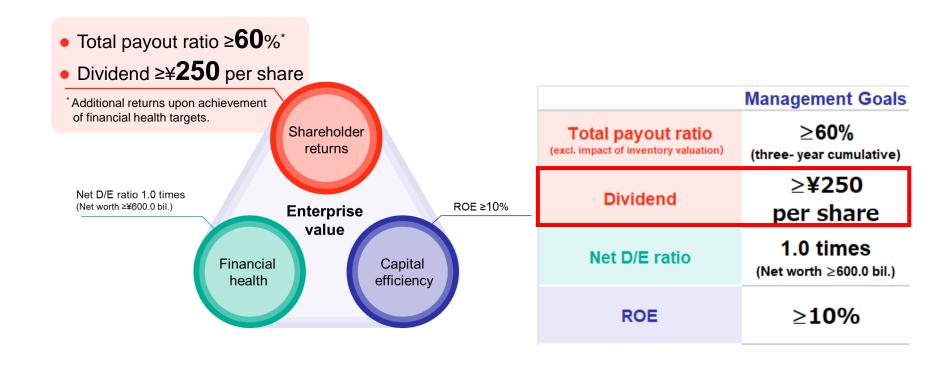


Revision of Policy on Shareholder Returns and Revision of Dividend Forecast



# Revision of Policy on Shareholder Returns and Revision of Dividend Forecast

- Increase the minimum dividend per share by ¥50 from ¥200 to ¥250 during the 7th Medium-Term Management Plan.
- As a result of the above, the FY2023 dividend will be ¥250 (planned) (interim ¥125, year-end ¥125)
   (YonY + ¥100, changes from previous announcement + ¥50)





# Highlights of 1Q FY2023 Results



# Highlights of 1Q FY2023 Results

#### **Highlights of 1Q FY2023 results**

Although - ¥17.1 billion of impact of inventory valuation was incurred due to the decline in crude oil prices, consolidated
ordinary profit excluding the impact of inventory valuation was ¥27.1 billion and profit attributable owners of parent
excluding the impact of inventory valuation was ¥4.7 billion.

#### **Outlook for FY2023**

- Despite the decline in crude oil prices, the actual margin environment improved excluding the effects of the time lag.
- Maintain the earnings forecasts announced previously.

				Unit: billion yen
		1Q FY2023 Results	1Q FY2022 Results	Change
1	Ordinary profit	10.0	121.5	-111.5
2	(Impact of inventory valuation)	-17.1	72.8	-89.9
3	Ordinary profit excluding the impact of inventory valuation	27.1	48.7	-21.6
4	Profit attributable to owners of parent	-7.2	77.6	-84.8
5	Profit attributable to owners of parent excluding the impact of inventory valuation	4.7	26.6	-21.9
6	Dubai crude oil price (USD/B) (AprJun.)	78	108	-30
7	JPY/USD exchage rate (yen/USD) (AprJun.)	137	130	7

		1Q FY2023 Results	FY2022 Results	Change
8	Net worth	516.2	527.9	-11.7
9	Net worth ratio	24.1%	24.9%	-0.8%
10	Net Debt to Equity Ratio (times)	0.98	1.10	-0.12

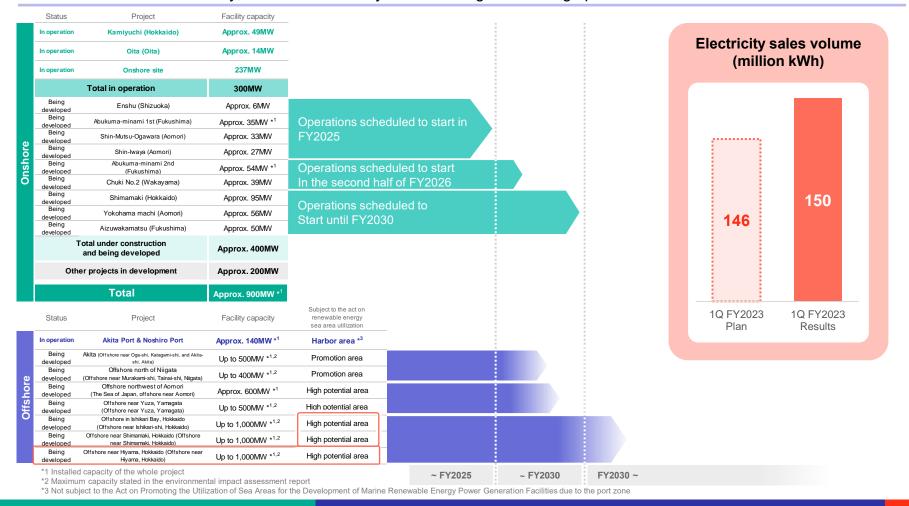


# Expand "New Fields" to Drive Growth



# Progress in Renewable Energy Business

- Regarding on the offshore wind power generation, the plan stage environmental consideration document of offshore near Hiyama, Hokkaido was published.
- Offshore near Ishikari Bay, Shimamaki and Hiyama are designated as high potential area.





# Initiatives for Green Electricity and Next-Generation Energy



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

New!

Ground-breaking ceremony for a large-scale demonstration facility for locally-made SAF made from waste cooking oil, the first in the country, was implemented

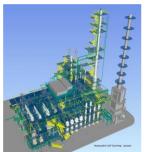
Plan to produce 30,000KL/year of SAF made from 100% domestically produced waste cooking oil at Sakai refinery.

Completed construction and commenced operation within FY2024, and the supply is scheduled to begin in 2025.

New!

Adopted for business related to promotion of recovery of waste cooking oil in Tokyo

Progress is being made in the recovery of domestic waste cooking oil and studies on SAF availability of recovered waste cooking oil, and efforts are being accelerated toward mass production of locally-made SAF.



Large-scale production of locallymade SAF Projection of completion of demonstration equipment

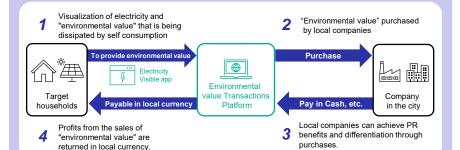


# Establish green electricity supply chain profit foundation

New!

Improving the added value of green electricity sales by providing platform for visualization and recycling of environmental value

In the digital rural city national plan grant project of Aizu Wakamatsu City, a platform was created to visualize the underutilized "environmental value" of residential solar power generation and circulate it within the community.





#### **Expand Mobility Business in anticipation of shift to EVs**

New!

Began handling ASF's EV and Zero Carbon plan

Added a lineup of light commercial EV made by ASF to the Cosmo My Car lease. Began offering the Zero Carbon Plan, a one-stop service that provides EV car leasing, Cosmo Denki Green, EV charging facilities, and EV maintenance packs, offering a consistent decarbonization solution.







### 1Q FY2023 Review

- Consolidated ordinary profit excluding the impact of inventory valuation was ¥27.1 billion (down ¥21.6 billion year on year).
- Consolidated ordinary profit was ¥10.0 billion including the inventory valuation of ¥ -17.1 billion. (down ¥111.5 billion year on year)

#### **Petroleum Business**

Ordinary profit excluding the impact of inventory valuation

¥12.6 billion

(down ¥15.7 billion year on year)



Profit decreased due to elimination of positive time lag effect occurred in the previous fiscal year, etc.

#### **Petrochemical Business**

Ordinary profit

- ¥2.4 billion

(down ¥7.7 billion year on year)



Profit decreased due to weakening of methyl ethyl ketone market, benzene market, etc.

#### Oil Exploration and Production Business

Ordinary profit

¥13.8 billion



Results in line with the previous year.

(down ¥0.8 billion year on year)

### Renewable Energy Business

Ordinary profit

¥0.5 billion

(up ¥0.4 billion year on year)



Profit increased due to improved wind conditions.



# Consolidated Income Statements - Changes from 1Q FY2022

Unit: billion yen 1Q FY2023 1Q FY2022 **FY2023** Changes Results Results **Forecast** 1 608.6 2,670.0 Net sales 662.4 -53.8 2 7.1 Operating profit 123.9 -116.8 123.5 3 2.9 -2.45.3 1.5 Non-operating income/expenses, net 4 Ordinary profit 10.0 121.5 -111.5 125.0 5 -6.2 6.4 3.3 3.1 Extraordinary income/losses, net 6 20.4 53.8 43.6 -23.2 Income taxes 3.2 7 Profit attributable to non-controlling interests 3.6 -0.410.0 -7.2 55.0 8 Profit attributable to owners of parent -84.8 77.6 9 -17.1 -89.9 0.0 Impact of inventory valuation 72.8 Ordinary profit excluding the 10 27.1 125.0 48.7 -21.6 impact of inventory valuation 11 Dubai crude oil price (USD/B) (Apr.-Jun.) 78 108 85 -30 12 137 130 JPY/USD exchange rate (yen/USD) (Apr.-Jun.) 7 130 [Reference] 13 Dubai crude oil price (USD/B) (Jan.-Mar.) (\*1) 81 83 79 2 14 JPY/USD exchange rate (yen/USD) (Jan.-Mar.) 132 16 131 116 15 CDU operating ratio (Calendar Daybasis) (\*2) 90.4% 93.2% -2.8% 91.2% 16 98.7% CDU operating ratio (Streaming Day basis) (\*2,3) 90.4% 95.9% -5.5%

<sup>(\*3)</sup> Streaming day indicates operating ratio excluding the impact of suspended operations due to regular maintenance, etc.



<sup>(\*1)</sup> The Dubai crude oil price two months ago is listed, as ICE Murban crude oil price, which is an index price for the Oil E&P Business, is assessed by reference to the Dubai crude oil price two months ago.

<sup>(</sup>e.g.) In the case of full-year results (Jan-Dec), the average of Dubai crude oil prices from November of the previous year to October of the current year is shown.

<sup>(\*2)</sup> The operating ratio at the Company's three refineries.

# Outline of Consolidated Ordinary Profit by Segment - Changes from 1Q FY2022

								Unit : billion yen	
			1Q FY202	1Q FY2023 Results 1Q FY2022 Results		Char	nges		
			Ordinary profit	Ordinary profit exc. the impact of inventory valuation	Ordinary profit	Ordinary profit exc. the impact of inventory valuation	Ordinary profit	Ordinary profit exc. the impact of inventory valuation	
1		Total	10.0	27.1	121.5	48.7	-111.5	-21.6	
2		Petroleum business	-4.5	12.6	101.1	28.3	-105.6	-15.7	
3	int)	Petrochemical business	-2	2.4	Į	5.3		-7.7	
4	segment)	Oil E&P business (*1)	13	3.8	14.6		-0.8		
5	(By	Renewable energy business	0.5		0.1		0.4		
6		Other (*2)	2.6		0.4		0.4 2.2		2.2

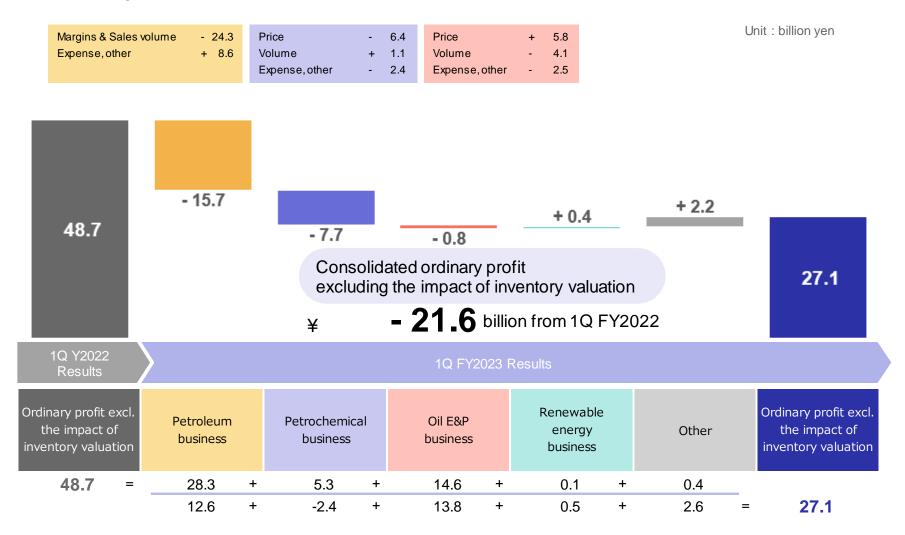
<sup>(\*1)</sup> The accounting period of three operators (Abu Dhabi Oil Company, Qatar Petroleum Development and United Petroleum Development) is December.



<sup>(\*2)</sup> Including consolidated adjustment.

# Consolidated Ordinary Profit (excluding the impact of inventory valuation)

- Changes from 1Q FY2022





# Outline of Consolidated Balance Sheet

Unit: billion yen

		FY2023 (As of Jun.30, '23)	FY2022 (As of Mar. 31, '23)	Changes
1	Total Assets	2,138.2	2,120.8	17.4
2	Net assets	636.8	663.4	-26.6
3	Net worth	516.2	527.9	-11.7
4	Net worth ratio	24.1%	24.9%	-0.8%
5	Net interest-bearing debt *1	503.8	581.9	-78.1
6	Net Debt Equity Ratio (times)	0.98	1.10	-0.12

<sup>\*1</sup> Total interest-bearing debts net of cash and deposits etc. as of the end of the period



# [1QFY2023 Results] Highlights of Consolidated Capital Expenditures

### Capital Expenditures & Depreciations, etc.

### Capital Expenditures by Segment

			Unit: billion yen
		1Q FY2023 Results	Changes
1	Capital expenditures	12.8	-3.1
2	Depreciation expense amount,etc	13.7	-0.6

				Unit: billion yen
		1Q FY2023 Results	1Q FY2022 Results	Changes
1	Petroleum	3.5	4.8	-1.3
2	Petrochemical	2.4	5.3	-2.9
3	Oil E&P	4.6	2.5	2.1
4	Renewable energy	2.6	2.8	-0.2
5	Other, adjustment	-0.3	0.5	-0.8
6	Total	12.8	15.9	-3.1
7	Investment securities, etc*	16.1	0.2	15.9

<sup>\*</sup> Investment securities, etc. are included in the net investment amount of ¥ 420.0 billion in the 7th Consolidated Medium-Term Management Plan (from FY2023 to FY2025).



# **Supplementary Information**

# [1Q FY2023 results] Supplementary Information

- Sales volume, CDU operating ratios
- Crude oil production volume, Crude reserves estimate (Proved and probable)
- Results by segment Changes from 1Q FY2022
- Major data of each business

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- Historical changes in Dubai crude oil price
- Historical changes of gasoline export and margin (Domestic and overseas)
- Historical changes of diesel fuel export and margin (Domestic and overseas)
- Petrochemical market (Ethylene, Paraxylene, Benzene, and Mixed xylene)

#### Forecast for FY2023 Performance

Highlights of consolidated business outlook (Changes from FY2022),
 Precondition and business sensitivity

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Outlook by segment (Changes from FY2022)

# Overview of the Cosmo Energy Group (Business outline)

 Petroleum Business, Petrochemical Business, Oil E&P Business, and Renewable Energy Business P. 36-45



Supplementary Information of 1Q FY2023 Results



# [1Q FY2023 results] Sales volume, CDU operating ratios

			1Q FY2023 Results	1Q FY2022 Results	Changes	FY2023 Forecast	FY2023 forecast changes from FY2022
1		Gasoline	1,747	1,727	101.2%	7,024	97.5%
2		Kerosene	270	285	94.8%	2,040	98.2%
3		Diesel fuel	1,374	1,380	99.5%	5,694	99.8%
4	Calling values	Heavy fuel oil A	387	382	101.3%	1,592	95.8%
5	Selling volume in Japan	Four-Total	3,778	3,774	100.1%	16,350	98.2%
6	птоарап	Naphtha	1,266	1,144	110.7%	5,792	111.2%
7		Jet fuel	94	133	70.8%	513	101.0%
8		Heavy fuel oil C	170	180	94.6%	734	95.2%
9		Sub-Total	5,308	5,231	101.5%	23,391	101.1%
10		Middle distillates Export	-	47	0.0%	250	52.0%
11		Bonded products and other	794	561	141.6%	2,579	97.5%
12	Export volume	incl. Jet fuel	502	332	151.3%	1,752	112.4%
13		incl. Low-sulfur C fuel oil	112	126	88.9%	521	62.1%
14		Sub-Total	794	607	130.7%	2,829	90.5%
15	Total		6,102	5,838	104.5%	26,219	99.8%

			1Q FY2023 Results	1Q FY2022 Results	Changes
16	CDU operating ratio	(Calendar Day basis) *1	90.4%	93.2%	-2.8%
17		(Streaming Day basis) *1,2	90.4%	95.9%	-5.5%

<sup>\*1</sup> The operating ratio at the Company's three refineries



Unit: thousand KL

<sup>\*2</sup> Streaming day indicates operating ratio excluding the impact of suspended operations due to regular repairs and maintenance, etc.

# Crude oil production volume, Crude reserves estimate (Proved and Probable)

# Crude oil production volume 1Q FY2023 Results 1Q FY2022 Results Changes Cosmo Energy Exploration & Production Co., Ltd. (B/D) 32,647 43,491 -10,844 75.1%

- \* The production volume represents the total production volumes of the three major developers: Abu Dhabi Oil Co., Ltd., and United Petroleum Development Co., Ltd.
- \* The production period has calculated in the January-March, because that the three major developers of the accounting period is December.
- \* The Cosmo Energy Group has a 51.5% stake in Abu Dhabi Oil Co., Ltd., and a 50.0% stake in United Petroleum Development Co., Ltd.

2	Crude Reserves Estimate (working interest base) *1 (As of I	Dec 31, 2022)	
		mmbls	
	Total Proved *2 and Probable Reserves *3	133.0	
	(Ref.: Reserves to Production Ratio of Total Proved and Probable Reserves)	about 17years	Note: The daily average crude production based on working interest reached 21 thousands bpd for FY2022 (Jan-Dec).

#### \*1 About results of reserves estimate

The assessment of ADOC reserves which deemed to have significant impact on Cosmo's future profitability was carried out in an independent assessment by Gaffney, Cline & Associate (hereinafter, "GCA"), a leading global independent reserve auditor. Their assessment confirmed Cosmo affiliates' internal assessment of remaining reserves. The assessment was carried out in accordance with the 2007 "Petroleum Resources Management System (PRMS)" prepared by the Oil and Gas Reserves Committee of the "Society of Petroleum Engineers" (SPE), and reviewed and jointly sponsored by the "World Petroleum Congress" (WPC), the "American Association of Petroleum Geologists" (AAPG) and the Society of Petroleum Evaluation Engineers (SPEE). The assessment of QPD and UPD reserves were carried out in these companies respectively. These assessments of the reserves do not guarantee the reserves and production from them.

#### \*2 Proved Reserves

Proved Reserves are those quantities of petroleum, which by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be commercially recoverable, from a given date forward, from known reservoirs and under defined economic conditions, operating methods, and government regulations. When probabilistic methods are used, there should be at least a 90% probability that the actual quantities recovered will equal or exceed the 1P estimate. (Definition of SPE PRMS 2007 March)

#### \*3 Probable Reserves

Probable Reserves are those additional Reserves which analysis of geoscience and engineering data indicate are less likely to be recovered than Proved Reserves but more certain to be recovered than Possible Reserves. When probabilistic methods are used, there should be at least a 50% probability that the actual quantities recovered will equal or exceed the 2P estimate. (Definition of SPE PRMS 2007 March)



# Results by segment - Changes from 1Q FY2022

# 1Q FY2023 Results - Changes from 1Q FY2022

Unit: billion yen

		Net sales		Operating profit Ordinary		Operating profit Ordinary profit		ry profit		ry profit ne impact of valuation)
		Results	Changes from 1Q FY2022	Results	Changes from 1Q FY2022	Results	Changes from 1Q FY2022	Results	Changes from 1Q FY2022	
1	Petroleum business	538.9	-45.5	-7.1	-111.9	-4.5	-105.6	12.6	-15.7	
2	Petrochemical business	87.5	-26.3	-1.9	-7.6	-2.4	-7.7	-2.4	-7.7	
3	Oil E&P business	27.6	3.2	13.2	0.3	13.8	-0.8	13.8	-0.8	
4	Renewable energy business	3.3	0.7	0.4	0.4	0.5	0.4	0.5	0.4	
5	Other, adjustment	-48.7	14.1	2.5	2.0	2.6	2.2	2.6	2.2	
6	Total	608.6	-53.8	7.1	-116.8	10.0	-111.5	27.1	-21.6	

# Cosmo Energy Group (by Segment)

Petroleum business	Cosmo Oil Co.,Ltd., Cosmo Oil Marketing Co., Ltd., Cosmo Oil Sales Corp, Cosmo Oil Lubricants Co., Ltd., Cosmo Energy Solutions Co., Ltd.,Gyxis Corporation (owned by the Cosmo Energy Group on the equity method), Kygnus Sekiyu K.K.(owned by the Cosmo Energy Group on the equity method), etc.
Petrochemical business	Cosmo Matsuyama Oil Co., Ltd., CM Aromatics Co., Ltd., Maruzen Petrochemical Co., Ltd., HD Hyundai Cosmo Petrochemical Co., Ltd. (owned by the Cosmo Energy Group on the equity method), etc.
Oil E&P business	Cosmo Energy Exploration & Production Co., Ltd., Abu Dhabi Oil Co., Ltd., Qatar Petroleum Development Co., Ltd., United Petroleum Development Co., Ltd. (owned by the Cosmo Energy Group on the equity method), etc.
Renewable energy business	Cosmo Eco Power Co.,Ltd , etc.
Other	Cosmo Engineering Co.,Ltd., Cosmo Trade & Services Co., Ltd., etc.



# [1Q FY2023 Results] Major data of each business

		(1) Refinery Operating Ratio						
			FY2018	FY2019	FY2020	FY2021	FY2022	1Q FY2023
		CDU operating ratio (Calender Day basis) *1	86.1%	87.9%	84.3%	95.4%	97.8%	90.4%
		(2) Number of SSs by Operator Type						
	Petroleum business		FY2018	FY2019	FY2020	FY2021	FY2022	1Q FY2023
		Subsidiary *2	888	876	877	872	880	879
1		Dealers	1,903	1,879	1,852	1,823	1,769	1,757
•		Total *3	2,791	2,755	2,729	2,695	2,649	2,636
		Number of Self-Service SSs *3	1,048	1,072	1,099	1,112	1,121	1,124
		(3) "Cosmo The Card" -Number of credit cards in	force & Accumulati	ve number of con	tracted my car leas	e & "Carlife Squar	re" –Number of Ap	op members
			FY2018	FY2019	FY2020	FY2021	FY2022	1Q FY2023
		Cosmo The Card (million cards) *3	4.33	4.21	4.12	4.03	3.84	3.77
		My car lease (Units) *3	60,579	73,634	85,126	96,214	108,104	110,482
		Carlife Square (million downloads) *3		2.02	3.44	4.72	5.95	6.23
		Crude oil production volume						
2	Oil E&P business	Oraco dii production relame	FY2018	FY2019	FY2020	FY2021	FY2022	1Q FY2023
	Dusiliess	Cosmo Energy E&P Co., Ltd. (B/D) *4	52,303	50,773	49,208	45,157	42,430	32,647
		Wind power plant capacity(ten thousan						
	Renewable	willia power plant capacity(ten tribusar	FY2018	FY2019	FY2020	FY2021	FY2022	1Q FY2023
3	energy	Dignt Connector (MANA) *3	•					
	business	Plant Capacity (MW) *3	227	266	261	300	247	310
		Electricity sales volume (million kWh)	468	550	532	595	553	150

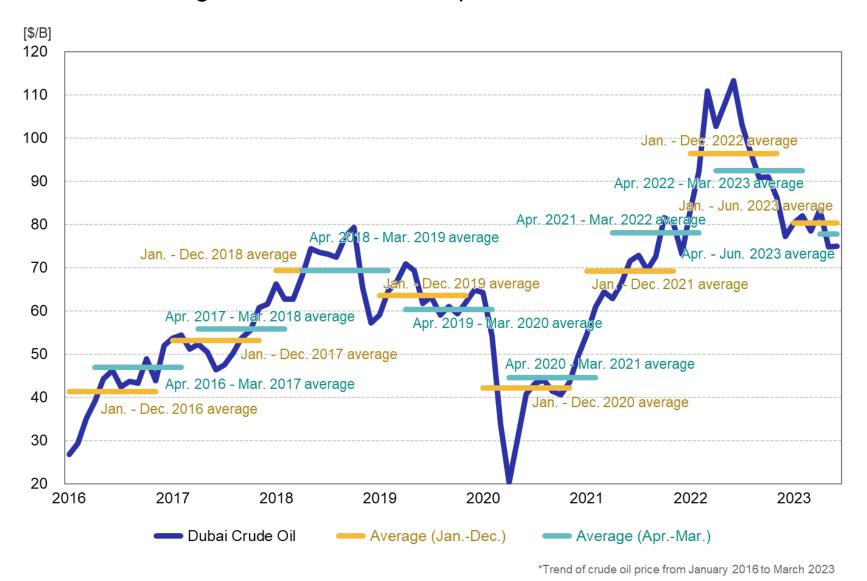
<sup>\*1</sup> April-March results for each fiscal year, \*2 Directly operated SS and our wholly owned subsidiaries' dealer SS,

<sup>\*5</sup> From FY2018 to FY2022: Total production volume of Abu Dhabi Oil Co., Ltd., Qatar Petroleum Development Co., Ltd.and United Petroleum Development Co., Ltd. From FY2023: Total production volume of Abu Dhabi Oil Co., Ltd., and United Petroleum Development Co., Ltd.



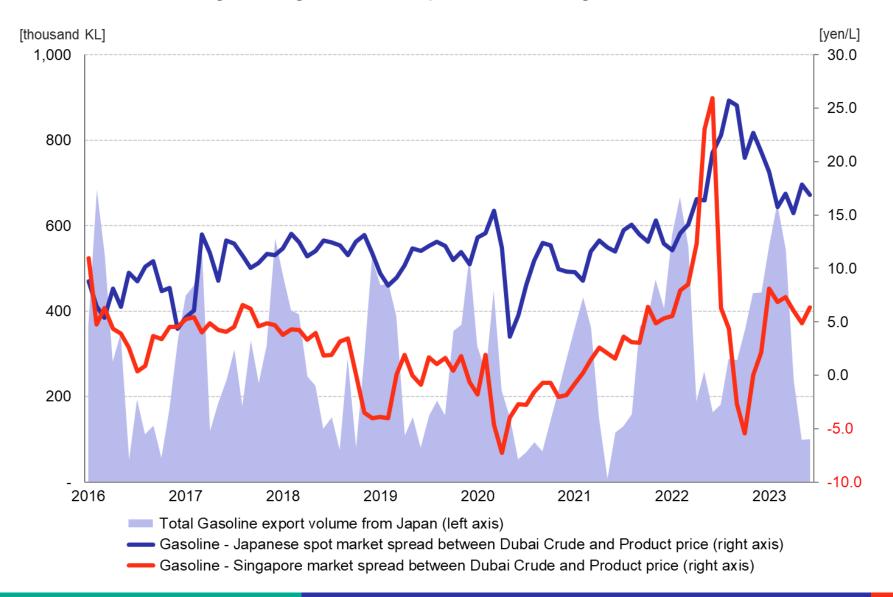
<sup>\*3</sup> At the end of March of each fiscal year, \*4 January-December results for each fiscal year

# Historical changes in Dubai crude oil price



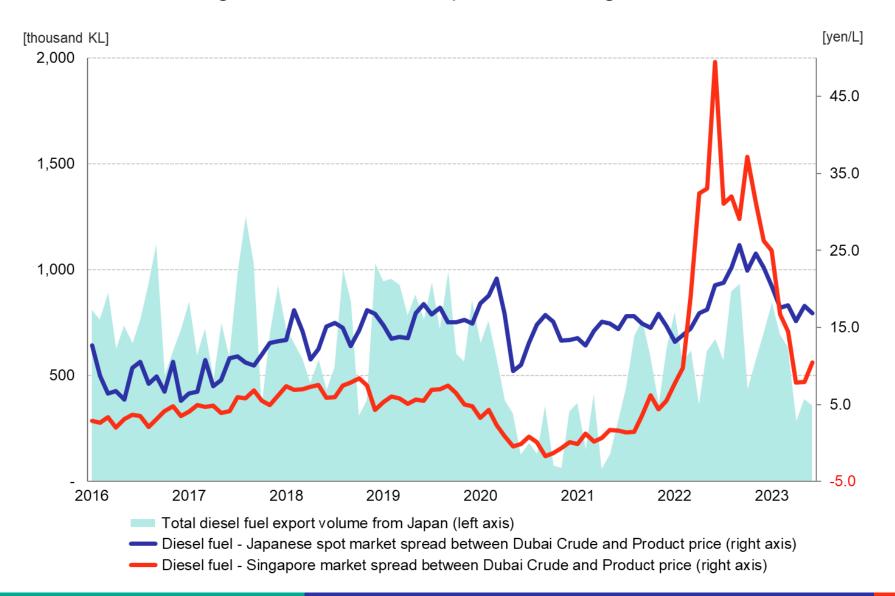


# Historical changes of gasoline export and margin (Domestic and Overseas)



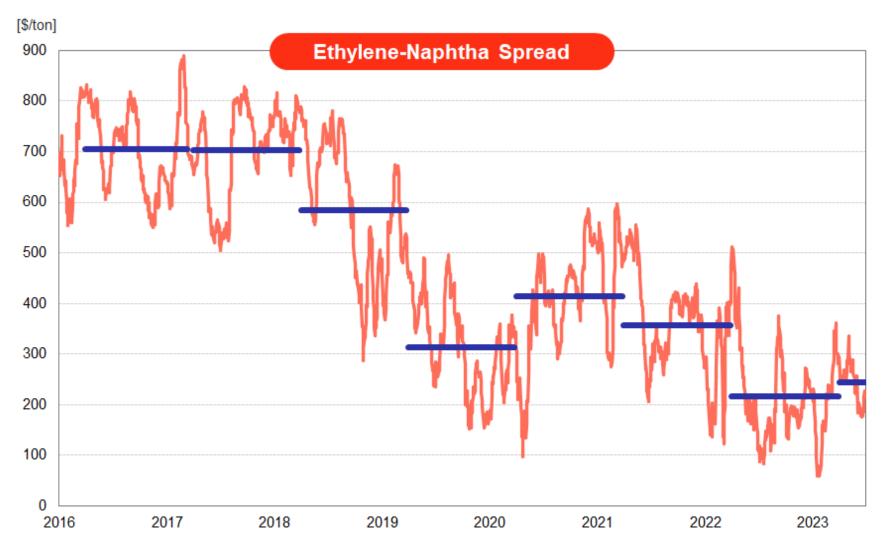


# Historical changes of diesel fuel export and margin (Domestic and Overseas)





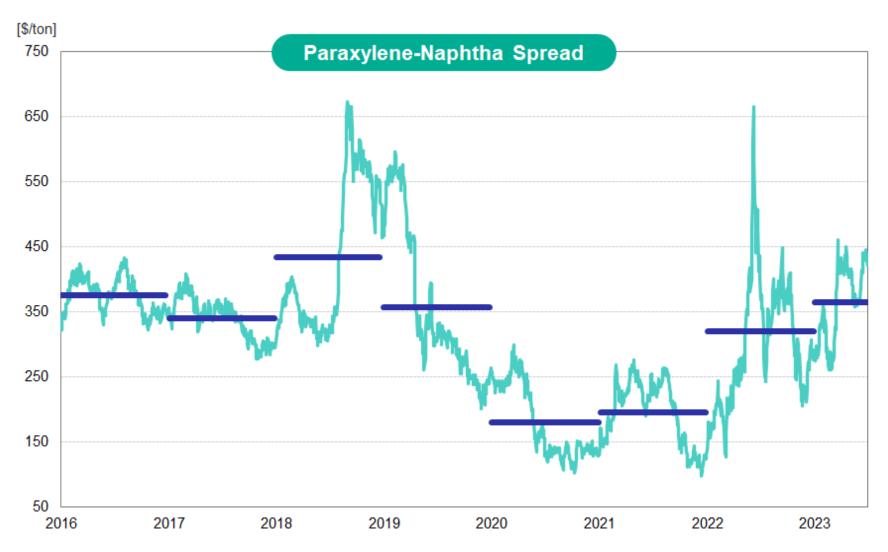
# Market conditions for Ethylene



\*Horizontal line indicates the average of each calendar year (Apr.-Mar.).



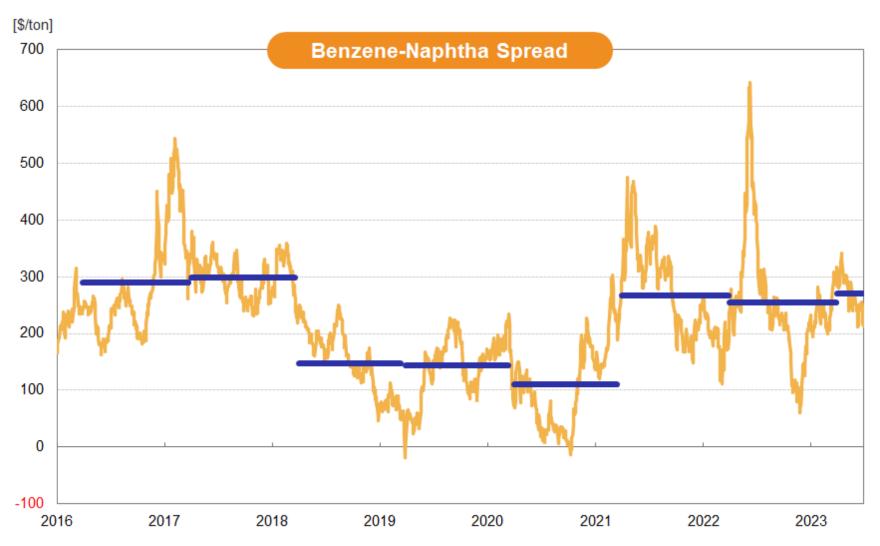
# Market conditions for Paraxylene



\*Horizontal line indicates the average of each calendar year (Jan.-Dec.).



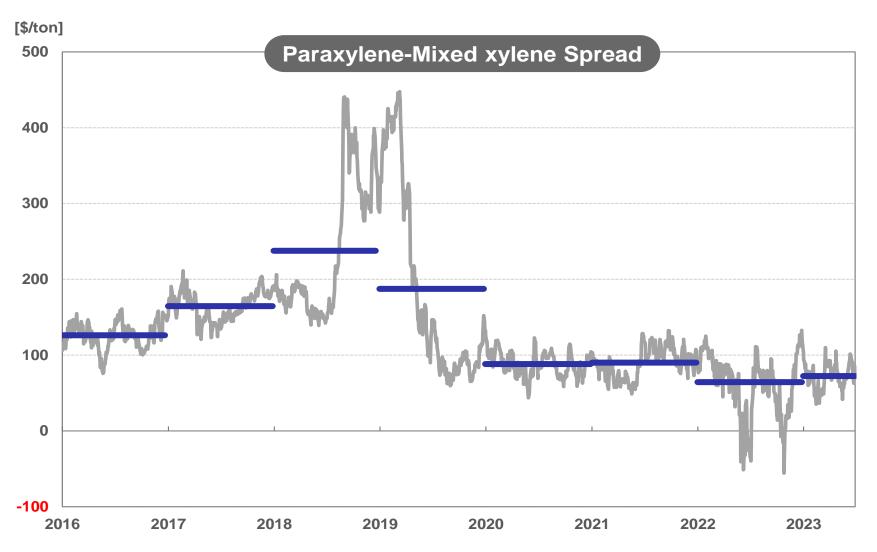
# Market conditions for Benzene



\*Horizontal line indicates the average of each calendar year (Apr.-Mar.).



# Market conditions for Paraxylene-Mixed xylene



\*Horizontal line indicates the average of each calendar year (Jan.-Dec.).



# Forecast for FY2023 Performance



# [FY2023 Forecast]

# Highlights of Consolidated Business Outlook (Change from FY2022) Precondition and Business Sensitivity

								The Billion yen
			FY2023 Forecast		FY2022 Results		Changes	
			Ordinary profit	Ordinary profit excl. the impact of inventory valuation	Ordinary profit	Ordinary profit excl. the impact of inventory valuation	Ordinary profit	Ordinary profit excl. the impact of inventory valuation
1	1 Total		125.0	125.0	164.5	142.9	-39.5	0.0
2		Petroleum business	56.0	56.0	65.7	44.1	-9.7	0.0
3	segment)	Petrochemical business	2.0		3.8		-1.8	
4	egu	Oil E&P business *1	55.0		84.5		-29.5	
5	(By s	Renewable energy business		2.0	2.6		-0.6	
6		Other *2	10.0		7.9			2.1
7	7 Impact of inventory valuation		0.0		21.6		-21.6	
8	8 Profit attributable to owners of parent		55.0		67.9		-12.9	
9	Profit attributable to owners of parent excluding the impact of inventory valuation *3		55.0		52.8		2.2	

<sup>\*1</sup> The Accounting period of three operators (Abu Dhabi Oil Company, Qatar Petroleum Development and United Petroleum Development) is December.

<sup>\*2</sup> Including consolidated adjustment \*3 Calculated after deducting 30% as tax equivalent for the impact of inventory valuation.

		FY2023 Forecast	FY2022 Results	С	hanges
10	Dividend per Share (Plan) (yen)	¥250	¥150	+ ¥100	
	F./2000			Ominia all	IDV//LICD

<b>■</b> P	recondition	FY2023 Forecast	FY2022 Results	Changes
11	Dubai crude oil price (USD/B) (AprMar.)	85	93	-8
12	JPY/USD exchange rate (AprMar.)	130	135	-5
13	Dubai crude oil price (USD/B) (NovOct.)	83	95	-12
14	JPY/USD exchange rate (JanDec.)	131	131	0

■ Sensitivity		ltem	Crude oil (Dubai)	JPY/USD exchange rate	
15	Petroleum	Inventory Impact	+2.7 billion yen	+1.8 billion yen	
16	Business	Refinery fuel cost etc.	-0.5 billion yen	-0.3 billion yen	
17		Total	+2.2 billion yen	+1.5 billion yen	
18	Oil E&P Business		+1.2 billion yen	+0.9 billion yen	

 $<sup>^{\</sup>star}$  Figures above refer to impacts by crude oil price (US\$1/bbl) and yen-dollar exchange rate ( ~ ¥ 1/USD)



Unit: billion ven

Sensitivity is calculated based on the assumption that crude oil prices and foreign exchange rates remain constant throughout the period. E&P business are estimated for 12 months for crude oil prices and foreign exchange.

# [FY2023 Forecast] Outlook by Segment, Changes from FY2022

# FY2023 Forecast - Changes from FY2022

Unit: billion yen

		Net s	sales	Operatii	ng profit	Ordina	ry profit	Ordinar (excluding the inventory	e impact of
			Changes from FY2022		Changes from FY2022		Changes from FY2022		Changes from FY2022
1	Petroleum business	2,241.0	-210.5	53.5	-11.9	56.0	-9.7	56.0	11.9
2	Petrochemical business	460.0	19.8	2.5	-4.4	2.0	-1.8	2.0	-1.8
3	Oil E&P business	121.0	-17.0	55.0	-24.9	55.0	-29.5	55.0	-29.5
4	Renewable energy business	15.0	2.8	2.2	0.1	2.0	-0.6	2.0	-0.6
5	Other, adjustment	-167.0	83.0	10.3	0.8	10.0	2.1	10.0	2.1
6	Total	2,670.0	-121.9	123.5	-40.3	125.0	-39.5	125.0	-17.9

# Cosmo Energy Group (by Segment)

Petroleum business	Cosmo Oil Co.,Ltd., Cosmo Oil Marketing Co., Ltd., Cosmo Oil Sales Corp, Cosmo Oil Lubricants Co., Ltd., Cosmo Energy Solutions Co., Ltd.,Gyxis Corporation (owned by the Cosmo Energy Group on the equity method), Kygnus Sekiyu K.K.(owned by the Cosmo Energy Group on the equity method), etc.
Petrochemical business	Cosmo Matsuyama Oil Co., Ltd., CM Aromatics Co., Ltd., Maruzen Petrochemical Co., Ltd., HD Hyundai Cosmo Petrochemical Co., Ltd. (owned by the Cosmo Energy Group on the equity method), etc.
Oil E&P business	Cosmo Energy Exploration & Production Co., Ltd., Abu Dhabi Oil Co., Ltd., Qatar Petroleum Development Co., Ltd., United Petroleum Development Co., Ltd. (owned by the Cosmo Energy Group on the equity method), etc.
Renewable energy business	Cosmo Eco Power Co.,Ltd , etc.
Other	Cosmo Engineering Co.,Ltd., Cosmo Trade & Services Co., Ltd., etc.



# **Business Outline**



# Cosmo Energy Group Business Overview

Segment	Petroleum business	Petrochemical business	Oil E&P business	Renewable energy business	Other Including consolidated adjustment	Total *2
Net sales *1	¥2,241.0 billion	¥460.0 billion	¥121.0 billion	¥15.0 billion	¥-167.0 billion	¥2,670.0 billion
Ordinary profit *1	¥56.0 billion	¥2.0 billion	¥55.0 billion	¥2.0 billion	¥10.0 billion	¥125.0 billion
Ordinary profit excluding *1 impact of inventory valuation	¥56.0 billion	¥2.0 billion	¥55.0 billion	¥2.0 billion	¥10.0 billion	¥125.0 billion
Major assets	CDU capacity '5, 6     400,000 BD (Domestic market share: Approx. 12.0%)      Domestic Sales Volume '3     23,136 thousand KL      Number of Service station '5     2,649      Number of the     "Cosmo the Card" Holders '5     3.84 million cards      Carlife Square apps. '5     5.95 million downloads      Car leasing business for individuals '5     Cumulative total 108,104 cars	<ul> <li>Aromatic production capacity *5</li> <li>Para-xylene 1.360 mil tons/year</li> <li>Benzene 0.735 mil tons/year</li> <li>Mixed-xylene 0.618 mil tons/year</li> </ul>	with oil producing countries for about 50 years  Operatorship (self-operation)  We produces the largest volume of crude oil in the Middle East region for a Japanese operator.  Crude Oil Production *3  Approx. 42 thousand B/D	24 MW		Corporate brand awareness  96%  * Survey of 2,000 person aged 16-69 nationwide by an outside research firm (as of August 2022)
Major business companies related companies	Cosmo Oil Cosmo Oil Lubricants Gyxis (LPG)  Cosmo Oil Marketing Cosmo Oil Sales Cosmo Energy Solutions	Maruzen Petrochemical     (Chiba/Yokkaichi)     Cosmo Matsuyama Oil     CM Aromatics (Chiba)     HD Hyundai Cosmo Petrochemical     (Korea)	Cosmo Energy Exploration & Production Abu Dhabi Oil (UAE) Qatar Petroleum Development (Qatar) United Petroleum Development (UAE/Qatar) Cosmo E&P Albahriya (UAE)	Cosmo Eco Power     (Wind power generation)     CSD solar     (Solar power generation)	● Cosmo Engineering ● Cosmo Trade and Service	

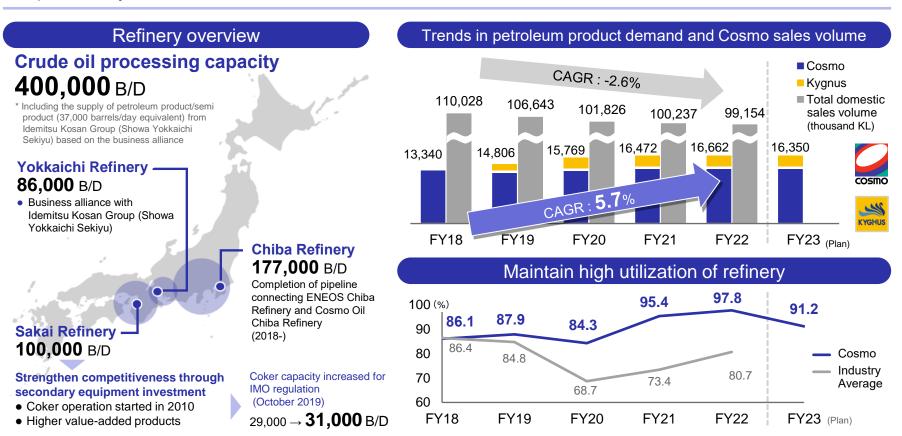
<sup>\*1</sup> FY2023 Forecast \*2 Including consolidated adjustment \*3 FY2022 Results \*4 As of Dec. 31, 2022 \*5 As of Mar. 31, 2023



<sup>\*6</sup> Including the supply of the petroleum product/semi product (37,000 bbls/day equivalent) from idemitsu kosan group with the business alliance

# [Petroleum Business] Overview

- Safe operations and stable supply at the three refineries located in major metropolitan areas
- With the closure of Sakaide Refinery (FY2013) and the start of fuel oil supply to Kygnus Sekiyu (FY2019), we have established a short position where production is lower than sales volume
- The high refinery utilization rate that has been maintained significantly improved profitability, particularly Petroleum Business





# [Petroleum Business]

# Efforts to Achieve High utilization rate and Efficient Operations at the refineries

- The source of cash generation is high utilization rate of the refineries. Profitability has grown dramatically as a result of high refinery utilization in the 6th Medium-term Management Plan.
- Started to (i.) reduce unplanned outages (troubles) and (ii.) shorten planned outages (scheduled turnaround) in order to keep refineries operating rate at high level.
  - i. To reduce unplanned outages, the "Asset Performance Management System(APM)" was installed to comprehensively manage and upgrade maintenance strategies. Utilize big data to reduce troubles by improving comprehensiveness, predictability, and manageability, and by optimizing maintenance costs, and improving operational efficiency.
  - ii. In terms of shortening the planned turnaround, we will invest for "a four-year run "at the time of the Chiba Refinery's maintenance in the current fiscal year. That enables to skip the interim maintenance in FY2025

#### Reduction of unplanned outages - APM

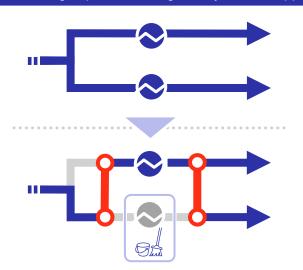


- Analysis and improvement

  Predictability improvement
- Timely linkage of vast amounts of maintenance and operation data to APM
- Improvement in life evaluation accuracy by comparing operation and maintenance data with in-house standards and technical information of a global standard
- Risk identification and control
- All equipment (230,000 items) can be centrally managed. (Shifting from decentralized management)
- Comprehensiveness improvement
- Prioritize risks by risk assessment in APM process. (Eliminating the dependency on individuals and allows for quantitative and accurate evaluation.)
- Formulation of strategies

  Manageability improvement
- Prioritizing projects in order of risk, allocating maintenance costs to the highest-risk projects first.
   Lising APM's capabilities to both improve equipment
- ⇒ Using APM's capabilities to both improve equipment reliability (preventing defects) and optimize maintenance costs

#### Shortening of planned outages - 4 year run support



Investment in crude oil heat exchangers is planned, with the aim of reducing the days of scheduled turnaround. The conventional method of cleaning the heat exchanger required the equipment to be shut down, but by adding valves and bypass lines, cleaning can be performed while running.



# [Petroleum Business] Efficient Sales through Data Science

- Possesses a wealth of customer data, including "Cosmo the Card" and app membership data
- We are able to reach customers more than our own SS shares by linking data with partners in other industries in addition to our own extensive customer data
- High level of profiling, analysis, and dissemination based on unparalleled rich customer data



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



- Use data science to segment customers and create behavioral scenarios
- Clarified the appeal on an individual basis, automatically follow scenarios and make appeals at the optimal timing and channels to improve purchase rates
- Promote not only fuel oil but also My Car Lease, Committed Car Inspection, Cosmo Denki, and a wide range of other services



# [Petrochemical Business] Basic Chemicals Overview

- Established an integrated production system in Asia, which is driving global demand
- Cost competitiveness based on the largest ethylene production capacity in Japan (Maruzen Petrochemical)
- Cost competitiveness based on the largest paraxylene production capacity in Asia (HCP)

#### Strengths of the Group **Maruzen Petrochemical (Chiba Plant)** · Located in the Keiyo Industrial Complex, one of the largest industrial complex in the world One of the largest ethylene production capacity in Japan • Highly competitive equipment in high operation (part of ethylene is exported) • Pursue synergies with petroleum refining in the future **HD Hyundai Cosmo Petrochemical (HCP)** Adjacent to the demand area (China) • One of the largest paraxylene production capacity in Asia Para-xylene Mixed-xylene China World's largest demand **CM Aromatics** area for paraxylene Produces mixed xylene Cosmo Matsuyama Oil Yokkaichi Refinery Manufacture of benzene. **Maruzen Petrochemical** toluene, xylene, etc. (Yokkaichi Plant)

#### **Production capacity**

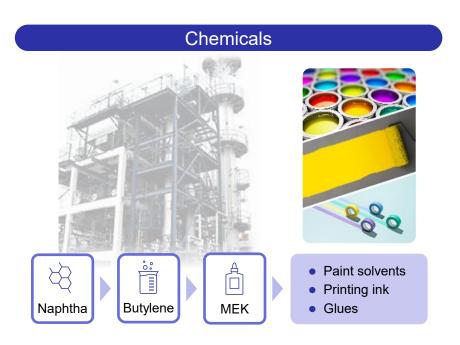
		Company	Production capacity
Olefin-based	Ethylene	Maruzen Petrochemical	*1.290 mil t/year
	Para- xylene	HD Hyundai Cosmo Petrochemical	1.360 mil t/year
		Maruzen Petrochemical	0.395 mil t/year
	Benzene	HD Hyundai Cosmo Petrochemical	0.250 mil t/year
Aroma-based		Cosmo Matsuyama Oil	0.090 mil t/year
Aloma-baseu		Total	0.735 mil t/year
		Cosmo Oil	0.300 mil t/year
	Mixed-	CM Aromatics	0.270 mil t/year
	xylene Cosmo Matsuyama Oil	0.048 mil t/year	
		Total	0.618 mil t/year
		Aroma-based, total	2.713 mil t/year

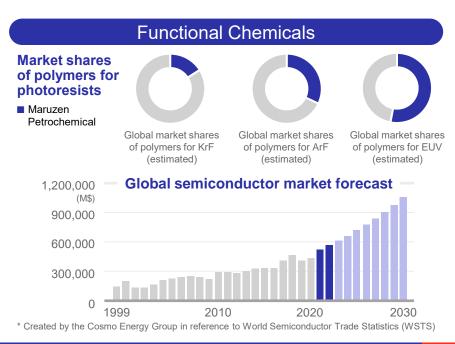
<sup>\*</sup> Includes production capacity of Keiyo Ethylene (55% owned, consolidated subsidiary of Maruzen Petrochemical)



# [Petrochemical Business] Overview of Chemical products and Specialty Chemicals

- World-class methyl ethyl ketone(MEK) production capacity (170,000 tons/year). Highly costcompetitive, not only supplying domestic manufacturers but also exporting overseas
- Maruzen Petrochemical boasts the world's top share in polymers for photoresists, a functional chemical used in the semiconductor manufacturing process
- The semiconductor market is likely to continue to grow over the medium to long term, given the
  expansion of 5G communications, IoT, and artificial intelligence, as well as the expansion of big data
  and cloud computing
- Polymers for photoresists are products made to order in a developmental type. High barriers to entry due to a lack of alternatives and high quality control requirements





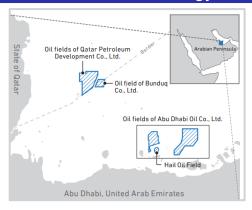


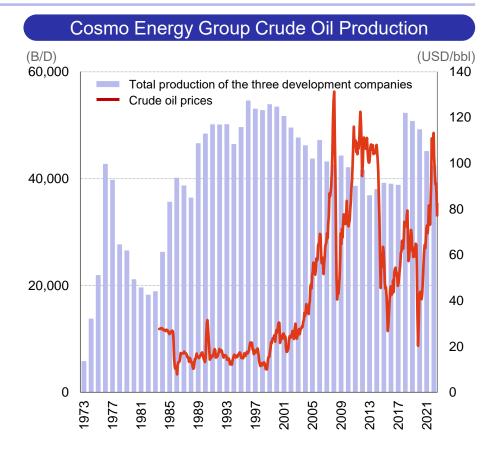
# [Oil E&P Business] Overview

- Based on a strong relationship of trust with the Emirate of Abu Dhabi in the Middle East developed over almost five decades, we have achieved low-risk, low-cost development
- Abu Dhabi Oil Company extended concessions (30 years) in 2012 and obtained the Hail Oil Field, which has the same production volume as its three existing oilfields
- Qatar Petroleum Development signed a new agreement in December 2022. Continued operation as an operator

#### Cosmo Energy Group Oil E&P Division **ADOC UPD QPD Nationality** (The UAE) (Qatar) (The UAE) (Qatar) Cosmo's 51.52% 100% 50% **Ownership Foundation** 1968 1997 1970 year

#### Blocks of the Cosmo Energy Group

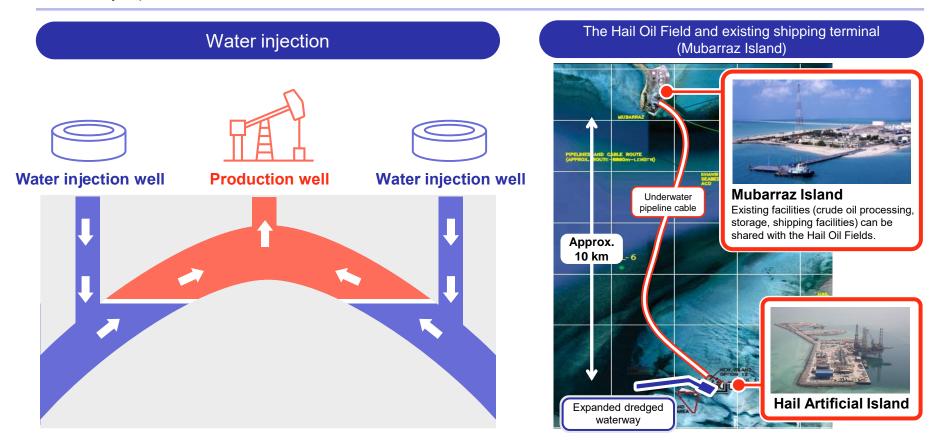






# [Oil E&P Business] Secondary recovery investment in the Hail Oil Field

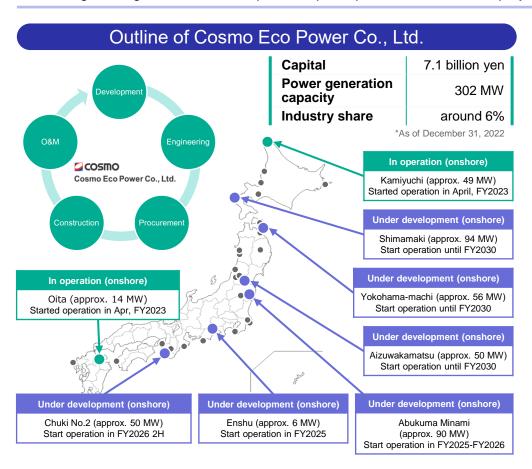
- Production began in FY2017 and reached full capacity in January 2018. Secondary recovery investment (water injection) has been
  underway since FY2019 due to lower reservoir pressure than expected. No change in total estimated production volume from the
  Hail Oil Field
- In addition to crude oil production through natural flow, Oil E&P requires secondary and tertiary recovery, which support natural flow
- Water injection is a method in which water is injected into the reservoir in order to restore low reservoir pressure. Aiming for early recovery of production volume

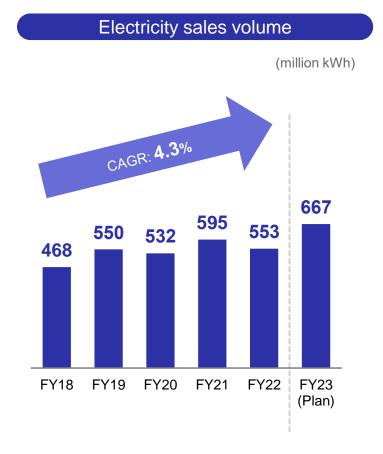




# [Renewable Energy Business] Overview

- The Company acquired Eco Power Co., Ltd. (currently Cosmo Eco Power Co., Ltd.), a pioneer in the wind power generation business (established in 1997), as a member of the Cosmo Group in 2010.
- High level of availability (90% or more) achieved by having development, construction, operation, and maintenance performed within the Group
- Aiming for long-term business expansion, participation in offshore site projects in addition to expansion of onshore sites







### 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.

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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.

