



# Results for the Third Quarter of Fiscal 2023

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February 8, 2024

Cosmo Energy Holdings, Co., Ltd.

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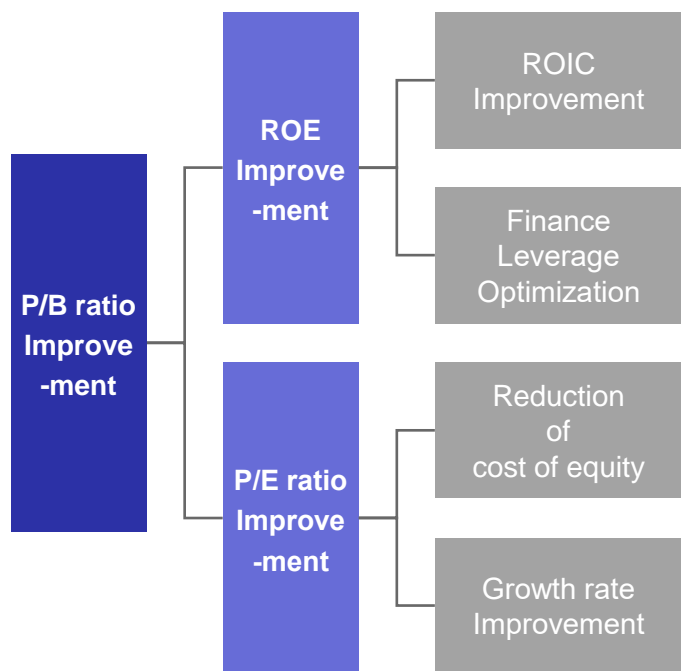
3Q FY2023 Results

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## Initiatives to Enhance Enterprise Value

# Initiatives to Enhance Enterprise Value

- To improve ROE and P/E ratio based on the basic policies of the Seventh Medium-Term Management Plan to enhance enterprise value.
- Accelerate efforts by expanding initiatives in each policy, aiming to achieve a P/B ratio of 1x or more as soon as possible.



## Seventh Medium-Term Management Plan Basic Policies



### ● Secure profitability

- P.4 Reduce Unplanned Stoppages

### ● Realize three-pronged capital policy

- P.5 Shareholder Return Policy

### ● Expand new fields to drive growth

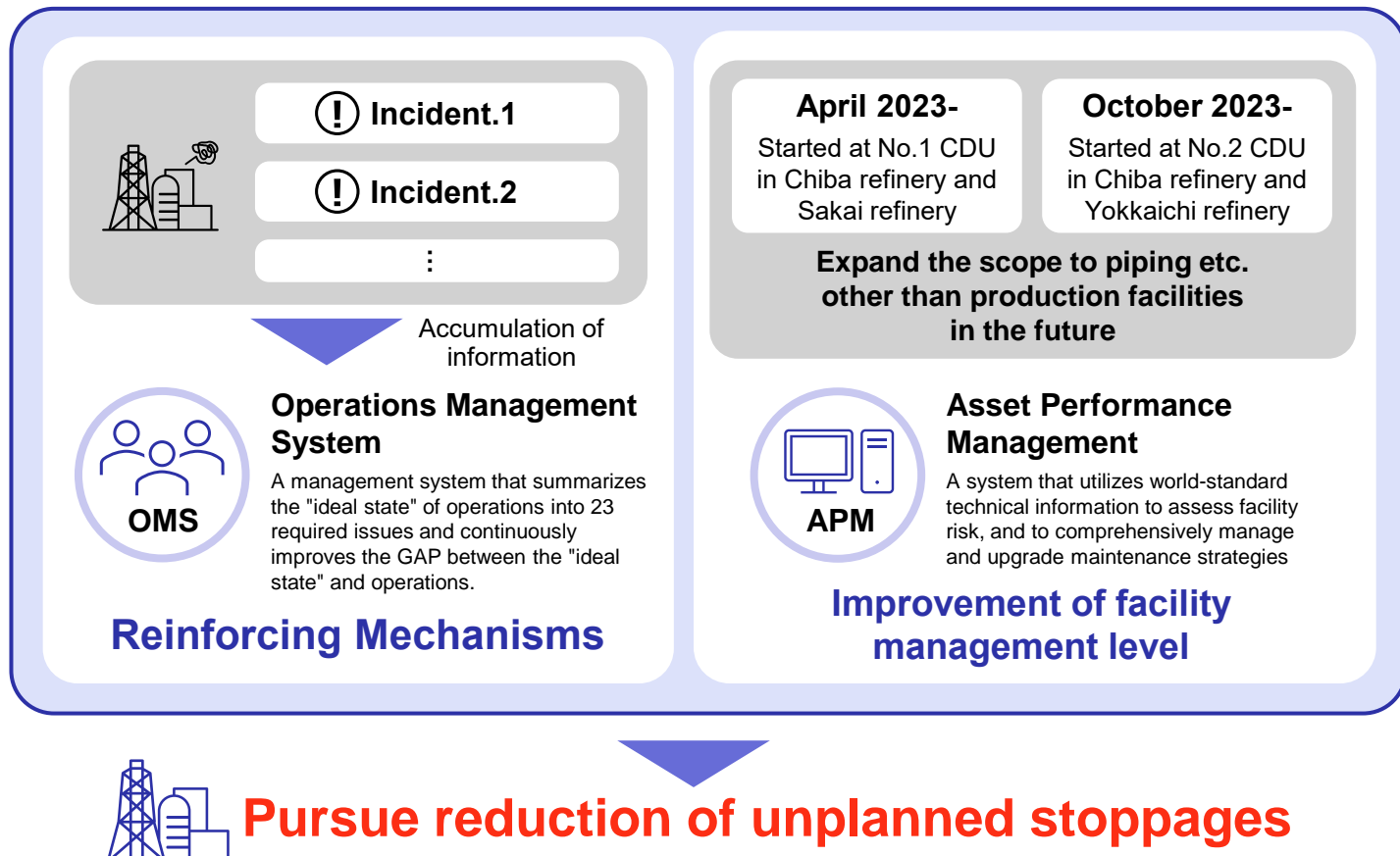
- P.6-7 Progress in Wind Power Generation Business  
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### ● Transform management foundation

- P.8 Strengthening the Effectiveness of the Board of Directors

- **Secure profitability**  
**Reduce Unplanned Stoppages**

- Strengthen the OMS (Operations Management System) mechanism and expand the scope of APM (Asset Performance Management) by properly analyzing trouble factors.
- Pursue reduction of unplanned stoppages and improve profitability.



# ● Realize three-pronged capital policy

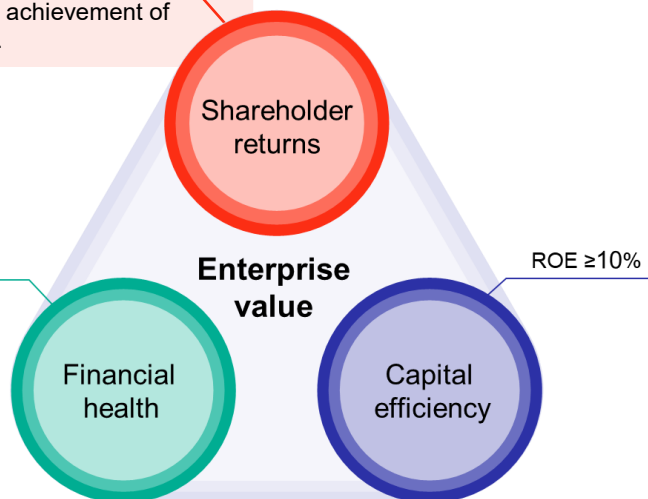
## Shareholder Return Policy

- Changes in the shareholder composition allow us to adopt a flexible approach to shareholder returns.
- Continue to aim for **early shareholder returns**.

- Total payout ratio  $\geq 60\%$ \*
- Dividend **¥300** per share  
(minimum ¥250 per share)

\* Additional returns upon achievement of financial health targets.

Net D/E ratio 1.0 times  
(Net worth  $\geq$  ¥600.0 bil.)



<b>Total payout ratio</b> (excl. impact of inventory valuation)	$\geq 60\%$ (three-year cumulative)
<b>Dividend</b>	<b>¥300 per share</b> (minimum dividend of ¥250 per share)
<b>Net D/E ratio</b>	<b>1.0 times</b> (Net worth $\geq$ ¥600.0 bil.)
<b>ROE</b>	$\geq 10\%$

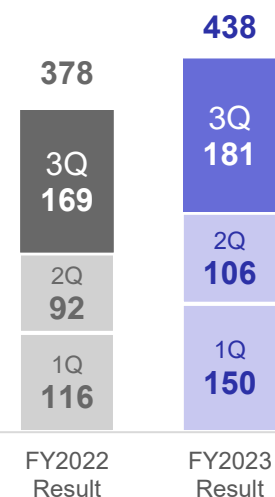
## ● Expand new fields to drive growth

# Progress in Wind Power Generation Business

- In onshore wind power generation, Hasaki (FY2027), a replacement project, and Kitahiyama (FY2030), a new construction project, are move up to "being developed".
- Regarding offshore wind power generation, the Sea of Japan offshore near Aomori and offshore near Yuza, Yamagata were published of guidelines for offshore wind public tender, and the public call has been opened.

	Status	Project	Facility capacity	
Onshore	In operation	Kamiyuchi (Hokkaido)	Approx. 49MW	
	In operation	Oita (Oita)	Approx. 14MW	
	In operation	Onshore site	237MW	
	<b>Total in operation</b>		<b>Approx. 300MW</b>	
	Under construction	Shin-Mutsu-Ogawara (Aomori)	Approx. 33MW	Operations scheduled to start in FY2024
	Under construction	Shin-Iwaya (Aomori)	Approx. 27MW	
	Being developed	Enshu (Shizuoka)	Approx. 6MW	Operations scheduled to start in FY2025
	Under construction	Abukuma-minami 1st (Fukushima)	Approx. 35MW *1	
	Under construction	Abukuma-minami 2nd (Fukushima)	Approx. 54MW *1	Operations scheduled to start in the second half of FY2026
	Being developed	Chuki No.2 (Wakayama)	Approx. 39MW	
	Being developed	Hasaki (Ibaraki)	Approx. 14MW	Operations scheduled to start in FY2027
	Being developed	Shimamaki (Hokkaido)	Approx. 95MW	Operations scheduled to start until FY2030
	Being developed	Yokohama machi (Aomori)	Approx. 56MW	
	Being developed	Aizuwakamatsu (Fukushima)	Approx. 50MW	
	Being developed	Kitahiyama (Hokkaido)	Approx. 52MW	
<b>Total under construction and being developed</b>			<b>Approx. 461MW</b>	
<b>Other projects in development</b>			<b>Approx. 139MW</b>	
<b>Total</b>			<b>Approx. 900MW *1</b>	

## Electricity sales volume (million kWh)

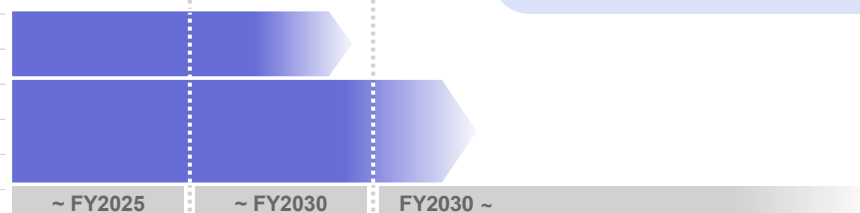


	Status	Project	Facility capacity	Subject to the act on renewable energy sea area utilization
Offshore	In operation	Akita Port & Noshiro Port	Approx. 140MW *1	Harbor area *3
	Being developed	Offshore northwest of Aomori (The Sea of Japan, offshore near Aomori)	Approx. 600MW *1	Promotion area
	Being developed	Offshore near Yuza, Yamagata (Offshore near Yuza, Yamagata)	Up to 450MW *1,2	Promotion area
	Being developed	Offshore in Ishikari Bay, Hokkaido (Offshore near Ishikari-shi, Hokkaido)	Up to 1,000MW *1,2	High potential area
	Being developed	Offshore near Shimamaki, Hokkaido (Offshore near Shimamaki, Hokkaido)	Up to 1,000MW *1,2	High potential area
	Being developed	Offshore near Hiya, Hokkaido (Offshore near Shimamaki, Hokkaido)	Up to 1,000MW *1,2	High potential area

\*1 Installed capacity of the whole project

\*2 Maximum capacity stated in the environmental impact assessment report

\*3 Not subject to the Act on Promoting the Utilization of Sea Areas for the Development of Marine Renewable Energy Power Generation Facilities due to the port zone



## ● Expand new fields to drive growth

# Initiatives for Green Electricity, Next-Generation Energy and SAF

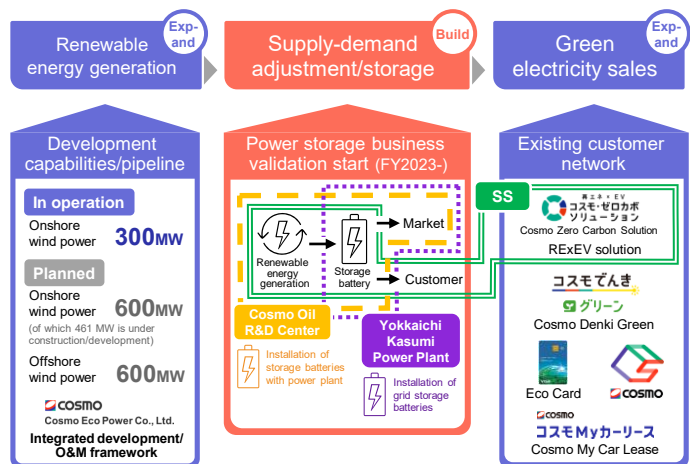
- Maximize the value of the green electricity supply chain by promoting the verification of energy storage business, which will play a key role in the supply-demand adjustment function.
- Collaboration in the hydrogen station field through a JV with Iwatani Corporation for entry into the hydrogen supply chain.
- Steady progress in both construction work and securing raw material suppliers for the mass production of SAF made from waste cooking oil.



## Increase green electricity supply chain profit

### Commences validation of power storage business

- Started demonstrations at three locations: Yokkaichi Kasumi Power Plant, R&D Center, and directly operated service stations
- Acquiring storage battery operation know-how, participating in new electricity market transactions, and expanding into "Cosmo Zero-Carbon Solutions"



## Next-generation energy initiatives

### Selected as the operator to develop hydrogen stations at two metropolitan-owned sites

- Following Heiwajima, which is currently under construction, the JV has been selected as the operator of two new sites on land owned by the Tokyo Metropolitan Government (in Shinsuna and Ariake Automobile Office)
- We aim to create a market for hydrogen stations for commercial vehicles such as large FC trucks and FC busses



## Commence SAF production

### Progress made in starting mass production of SAF made from waste cooking oil

- In May 2023, construction of SAF production equipment began at the Sakai Refinery, and is on schedule to start operation by the end of FY2024.
- Steady progress in collaboration with a wide range of industries, including restaurant chains, department stores, airport operators, and railroad operators, toward annual production of 30,000 KL

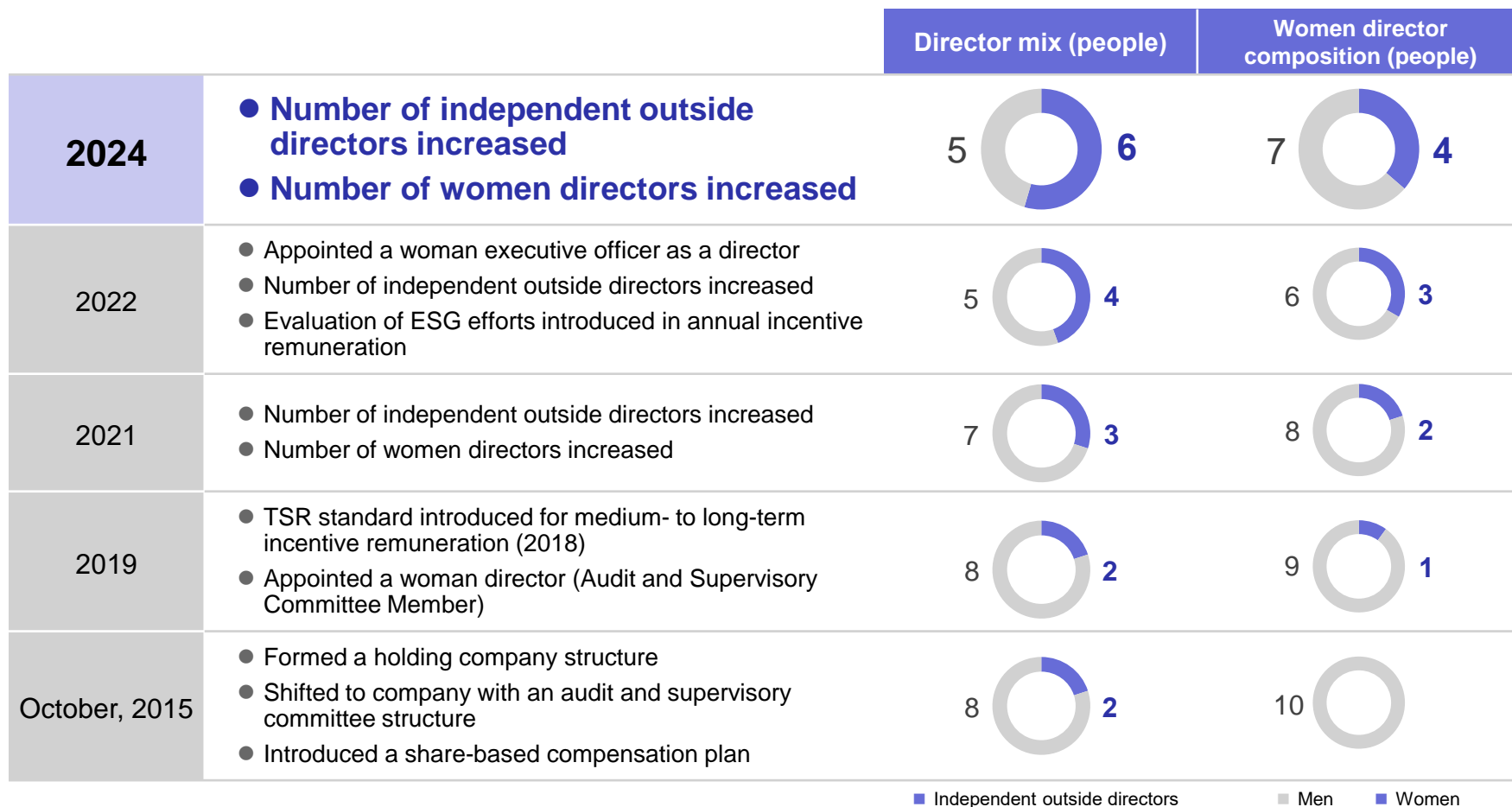




## ● Transform management foundation

### Strengthening the Effectiveness of the Board of Directors

- Increased the number of independent outside directors and women directors considering engagement with institutional investors.
- Strengthen the effectiveness of the Board of Directors to sustainably enhance the enterprise value of the Company.



## Highlights of 3Q FY2023 Results

# Highlights of 3Q FY2023 Results

## Highlights of 3Q FY2023

- Ordinary profit was ¥113.6 billion and net profit was ¥45.8 billion.
- Ordinary profit excluding the impact of inventory valuation was ¥105.0 billion, and net income excluding the impact of inventory valuation was ¥39.8 billion.

## Highlights of FY2023 Forecasts

- Forecasts of FY2023 remain unchanged as earnings are generally on par with the November announcement.

		Unit: billion yen		
		3Q FY2023 Results	3Q FY2022 Results	Change
1	Ordinary profit	113.6	158.7	-45.1
2	(Impact of inventory valuation)	8.6	45.0	-36.4
3	Ordinary profit excluding the impact of inventory valuation	105.0	113.7	-8.7
4	Profit attributable to owners of parent	45.8	62.1	-16.3
5	Profit attributable to owners of parent excluding the impact of inventory valuation	39.8	30.6	9.2
6	Dubai crude oil price (USD/B) (Apr.-Dec.)	83	97	-14
7	JPY/USD exchange rate (yen/USD) (Apr.-Dec.)	143	137	6
		3Q FY2023 Results	FY2022 Results	Change
8	Net worth	561.8	527.9	33.9
9	Net worth ratio	24.6%	24.9%	-0.3%
10	Net Debt to Equity Ratio (times)	0.94	1.10	-0.16

## 3Q FY2023 Results

## 3Q FY2023 Review

- Consolidated ordinary profit excluding the impact of inventory valuation was ¥105.0 billion(Down ¥8.7 billion year on year).
- Due to the impact of inventory valuation of ¥8.6 billion, consolidated ordinary profit was ¥113.6 billion (Down ¥45.1 billion year on year).
- Net profit was ¥45.8 billion (Down ¥16.3 billion year on year).

### Petroleum business

Ordinary profit excluding the impact of inventory valuation

**¥ 51.5 billion**

(Up ¥20.8 billion year on year)



Profit increased due to improved margins and cost and other improvements despite of refinery trouble and turnaround.

### Petrochemical business

Ordinary profit

**¥- 3.7 billion**

(Down ¥10.9 billion year on year)



Profit decreased due to softening of methyl-ethyl-keton market and olefin market conditions, etc.

### Oil E&P business

Ordinary profit

**¥ 49.3 billion**

(Down ¥20.1 billion year on year)



Profit decreased due to falling crude oil prices and other factors.

### Renewable Energy Business

Ordinary profit

**¥ 1.4 billion**

(Up ¥0.3 billion year on year)



Profit increased due to improved wind conditions.

## [3Q FY2023 Results]

### Consolidated Income Statements – Changes from 3Q FY2022

		3Q FY2023 Results	3Q FY2022 Results	Changes	Unit: billion yen FY2023 Forecast
1	Net sales	2,013.2	2,096.1	-82.9	2,550.0
2	Operating profit	101.7	152.9	-51.2	146.0
3	Non-operating income/expenses, net	11.9	5.8	6.1	9.0
4	Ordinary profit	113.6	158.7	-45.1	155.0
5	Extraordinary income/losses, net	-1.3	-4.3	3.0	-3.1
6	Income taxes	60.1	82.1	-22.0	66.4
7	Profit attributable to non-controlling interests	6.3	10.3	-4.0	7.4
8	Profit attributable to owners of parent	45.8	62.1	-16.3	78.0
9	Impact of inventory valuation	8.6	45.0	-36.4	23.0
10	Ordinary profit excluding the impact of inventory valuation	105.0	113.7	-8.7	132.0
11	Dubai crude oil price (USD/B) (Apr.-Dec.)	83	97	-14	84
12	JPY/USD exchange rate (yen/USD) (Apr.-Dec.)	143	137	6	143
【Reference】					
13	Dubai crude oil price (USD/B) (Jan.-Sep.) (*1)	80	96	-16	82
14	JPY/USD exchange rate (yen/USD) (Jan.-Sep.)	138	128	10	140
15	CDU operating ratio (Calendar Day basis) (*2)	84.8%	97.1%	-12.3%	87.5%
16	CDU operating ratio (Streaming Day basis) (*2,3)	93.9%	98.4%	-4.5%	94.4%

(\*1) 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.

(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.

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

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

# [3Q FY2023 Results]

## Outline of Consolidated Profit by Segment – Changes from 3Q FY2022

Unit : billion yen

		3Q FY2023 Results		3Q 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	Total	113.6	105.0	158.7	113.7	-45.1	-8.7
2	Petroleum business	60.1	51.5	75.7	30.7	-15.6	20.8
3	Petrochemical business	-3.7		7.2		-10.9	
4	Oil E&P business (*1)	49.3		69.4		-20.1	
5	Renewable energy business	1.4		1.1		0.3	
6	Other (*2)	6.5		5.3		1.2	

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

(\*2) Including consolidated adjustment.

# [3Q FY2023 Results]

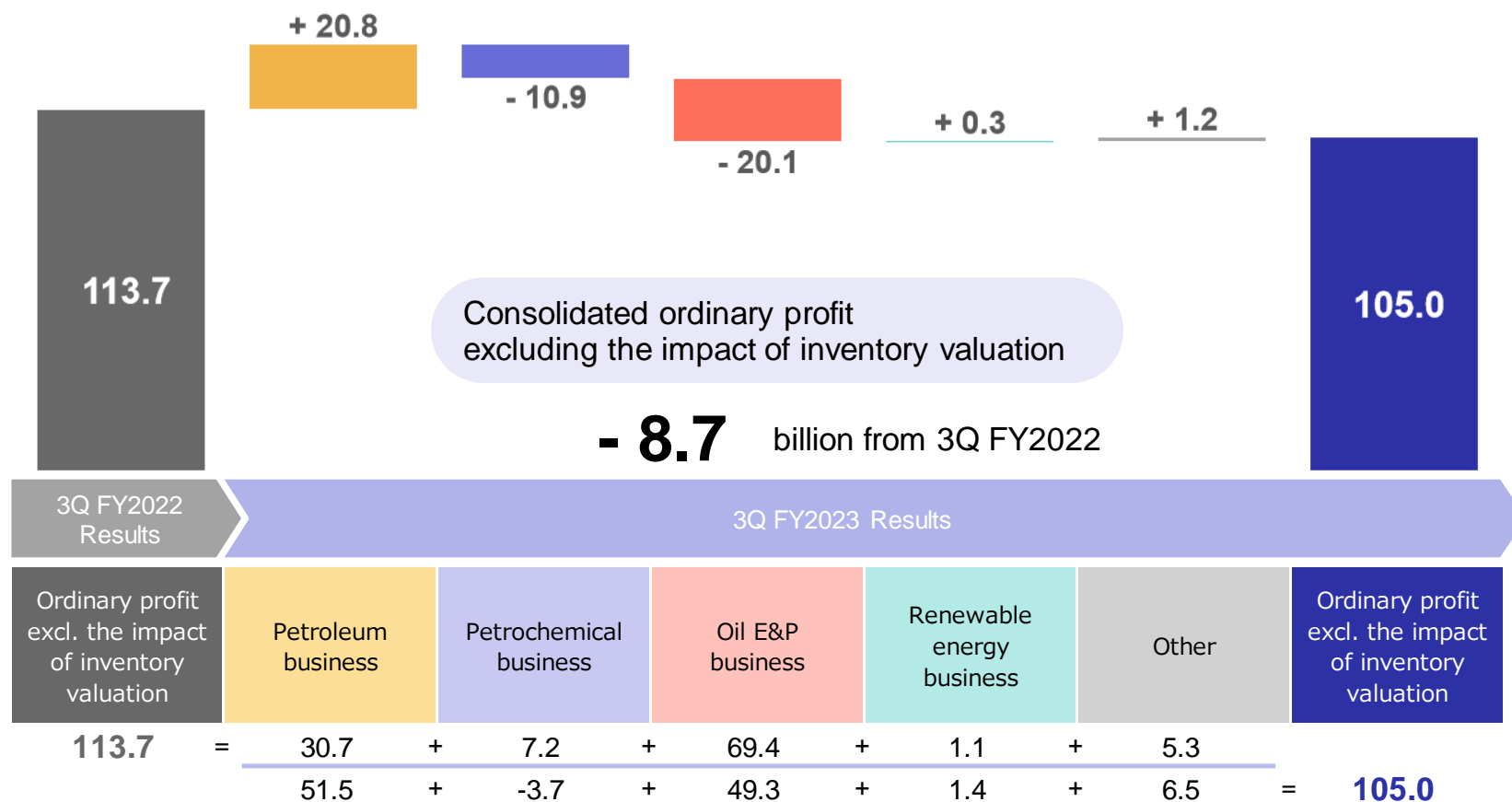
## Consolidated Ordinary Profit (excluding the impact of inventory valuation) - Changes from 3Q FY2022

Margins & Sales volume + 17.5  
Expense, other + 6.8  
Refinery trouble - 3.5

Price - 6.9  
Volume - 2.0  
Expense, other - 2.0

Price - 10.9  
Volume - 5.6  
Expense, other - 3.6

Unit : billion yen





[FY2023 3Q Results]  
Outline of Consolidated Balance Sheets

Unit: billion yen

		FY2023 (As of Dec.31, '23)	FY2022 (As of Mar. 31, '23)	Changes
1	Total Assets	<b>2,285.7</b>	2,120.8	164.9
2	Net assets	<b>687.8</b>	663.4	24.4
3	Net worth	<b>561.8</b>	527.9	33.9
4	Net worth ratio	<b>24.6%</b>	24.9%	-0.3%
5	Net interest-bearing debt <sup>*1</sup>	<b>529.0</b>	581.9	-52.9
6	Net Debt to Equity Ratio (times)	<b>0.94</b>	1.10	-0.16

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

## [FY2023 3Q Results] Overview of Consolidated Capital Expenditures

### Capital Expenditures & Depreciations, etc.

		Unit: billion yen	
		3Q FY2023 Results	Changes from 3Q FY2022
1	Capital expenditures	53.8	12.2
2	Depreciation expense amount, etc	41.2	-2.2

### Capital Expenditures by Segment

		Unit: billion yen		
		3Q FY2023 Results	3Q FY2022 Results	Changes
1	Petroleum	28.5	12.9	15.6
2	Petrochemical	6.1	7.6	-1.5
3	Oil E&P	13.3	9.7	3.6
4	Renewable energy	6.3	11.7	-5.4
5	Other, adjustment	-0.4	-0.3	-0.1
6	<b>Total</b>	<b>53.8</b>	<b>41.6</b>	<b>12.2</b>
7	Investment securities, etc*	19.6	8.3	11.3

\* 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

### [3Q FY2023 Results] Supplementary Information

- Sales volume, CDU operating ratios
- Crude oil production volume, Crude reserves estimate (Proved and probable)
- Results by segment - Changes from 3Q FY2022
- Major data of each business
- 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)

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### [Forecast for FY2023 Performance] (Announced in November 2023)

- Highlights of Consolidated Business Outlook (Changes from FY2022),  
Precondition and Business Sensitivities
- Outlook by Segment (Change from FY2022)

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### Outline of the Cosmo Energy Group (Business Outline)

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

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## Supplementary Information of 3Q FY2023 Results

## [FY2023 3Q Results] Sales volume, CDU operating ratios

			Unit: thousand KL				
			3Q FY2023 Results	3Q FY2022 Results	Changes	FY2023 Forecast	FY2023 forecast changes from FY2022
1	Selling volume in Japan	Gasoline	5,516	5,443	101.3%	7,236	100.4%
2		Kerosene	1,128	1,198	94.2%	2,032	97.8%
3		Diesel fuel	4,266	4,300	99.2%	5,664	99.3%
4		Heavy fuel oil A	1,158	1,178	98.3%	1,615	97.2%
5		Four-Total	12,068	12,119	99.6%	16,547	99.4%
6		Naphtha	3,453	3,896	88.6%	5,253	100.9%
7		Jet fuel	293	409	71.6%	464	91.3%
8		Heavy fuel oil C	579	578	100.2%	750	97.3%
9		Sub-Total	16,393	17,002	96.4%	23,015	99.5%
10	Export volume	Middle distillates Export	-	383	-	250	52.0%
11		Bonded products and other	2,392	1,973	121.2%	2,844	107.6%
12		incl. Jet fuel	1,481	1,144	129.4%	1,826	117.2%
13		incl. Low-sulfur C fuel oil	368	635	57.9%	504	60.1%
14		Sub-Total	2,392	2,356	101.5%	3,094	99.0%
15	Total		18,785	19,358	97.0%	26,109	99.4%

			3Q FY2023 Results	3Q FY2022 Results	Changes
16	CDU operating ratio	(Calendar Day basis) <sup>*1</sup>	84.8%	97.1%	-12.3%
17		(Streaming Day basis) <sup>*1,2</sup>	93.9%	98.4%	-4.5%

\*1 The operating ratio at the Company's three refineries

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

## [FY2023 3Q Results]

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

#### 1 Crude oil production volume

	3Q FY2023 Results	3Q FY2022 Results	Changes	
Cosmo Energy Exploration & Production Co., Ltd. (B/D)	36,350	42,311	-5,961	85.9%

\* 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) <sup>\*1</sup> (As of Dec 31, 2022)

	mmbbls
Total Proved <sup>*2</sup> and Probable Reserves <sup>*3</sup>	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) Results of crude oil reserves evaluation

Abu Dhabi Oil's reserves, which are considered to have a significant impact on our future earnings, have been evaluated by a third party by Gaffney, Cline & Associates (GCA), one of the world's leading independent valuation firms for crude oil reserves. This assessment is conducted by GCA on the basis of its own internal evaluations of reserves conducted independently by our affiliates. This assessment is carried out in accordance with the criteria (2007 PRMS(Petroleum Resources Management System) prepared by Oil and Gas Reserves Committee (Crude Oil and Gas Reserve Commission) of SPE(Society of Petroleum Engineers Society of Petroleum Engineers and reviewed and jointly formulated by WPC(World Petroleum Congress World Oil Council), AAPG (American Association of Petroleum Geologists American Society of Petroleum Geological Engineers, and SPEE (Society of Petroleum Evaluation Engineers Petroleum Assessment Technology Society. The evaluation of the reserves for the development of Qatar oil and the joint oil development is an in-house evaluation conducted independently by both companies. The evaluation of crude oil reserves does not guarantee the reserves or the amount of crude oil collected.

#### (\*2) What is the confirmed reserves?

Confirmed reserves refer to the amount of oil that is reasonably expected to be recovered commercially under the current economic conditions, operational practices and regulations from known reservoirs after a certain point in time through the analysis of geological and engineering data. It is also stated that if a probabilistic method is used, the probability that the confirmed reserves can be recovered must be greater than 90%. (Defined in March of SPE PRMS 2007)

#### (\*3) What is estimated reserves?

This is an unidentified reserve that can probably be recovered through the analysis of geological and engineering data. In addition, if a probabilistic method is used, the probability that the confirmation + estimated reserves can be recovered must be 50% or more (defined in March of SPE PRMS 2007).

## [FY2023 3Q Results] Results by Segment - Changes from 3Q FY2022

### FY2023 3Q Results - Changes from 3Q FY2022

Unit: billion yen

		Net sales		Operating profit		Ordinary profit		Ordinary profit (excluding the impact of inventory valuation)	
		Results	Changes from 3Q FY2022	Results	Changes from 3Q FY2022	Results	Changes from 3Q FY2022	Results	Changes from 3Q FY2022
1	Petroleum business	1,796.7	-38.7	53.6	-23.1	60.1	-15.6	51.5	20.8
2	Petrochemical business	264.9	-82.2	-1.6	-10.0	-3.7	-10.9	-3.7	-10.9
3	Oil E&P business	84.1	-17.0	41.8	-18.0	49.3	-20.1	49.3	-20.1
4	Renewable energy business	9.7	1.3	1.0	0.2	1.4	0.3	1.4	0.3
5	Other, adjustment	-142.2	53.7	6.9	-0.3	6.5	1.2	6.5	1.2
6	Total	2,013.2	-82.9	101.7	-51.2	113.6	-45.1	105.0	-8.7

### Group Companies (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.

## [FY2023 3Q Results] Major data of each business

1	Petroleum business	(1) Refinery Operating Ratio										
			FY2018	FY2019	FY2020	FY2021	FY2022	3Q FY2023				
		CDU operating ratio (Calender Day basis) <sup>*1</sup>	86.1%	87.9%	84.3%	95.4%	97.8%	84.8%				
		(2) Number of SSs by Operator Type										
			FY2018	FY2019	FY2020	FY2021	FY2022	3Q FY2023				
		Subsidiary <sup>*2</sup>	888	876	877	872	880	873				
		Dealers	1,903	1,879	1,852	1,823	1,769	1,745				
		Total <sup>*3</sup>	2,791	2,755	2,729	2,695	2,649	2,618				
		Number of Self-Service SSs <sup>*3</sup>	1,048	1,072	1,099	1,112	1,121	1,128				
		(3) "Cosmo The Card" -Number of credit cards in force & Accumulative number of contracted my car lease & "Carlife Square" –Number of App members										
	FY2018	FY2019	FY2020	FY2021	FY2022	3Q FY2023						
Cosmo The Card (million cards) <sup>*3</sup>							4.33	4.21	4.12	4.03	3.84	3.65
My car lease (Units) <sup>*3</sup>							60,579	73,634	85,126	96,214	108,104	116,141
Carlife Square (million downloads) <sup>*3</sup>								2.02	3.44	4.72	5.95	6.90
2	Oil E&P business	Crude oil production volume										
			FY2018	FY2019	FY2020	FY2021	FY2022	3Q FY2023				
		Cosmo Energy E&P Co., Ltd. (B/D) <sup>*4,5</sup>						52,303	50,773	49,208	45,157	42,430
3	Renewable energy business	Wind power plant capacity(ten thousand kW)										
			FY2018	FY2019	FY2020	FY2021	FY2022	3Q FY2023				
		Plant Capacity (MW) <sup>*3</sup>						227	266	261	300	247
Electricity sales volume (million kWh)						468	550	532	595	553	438	

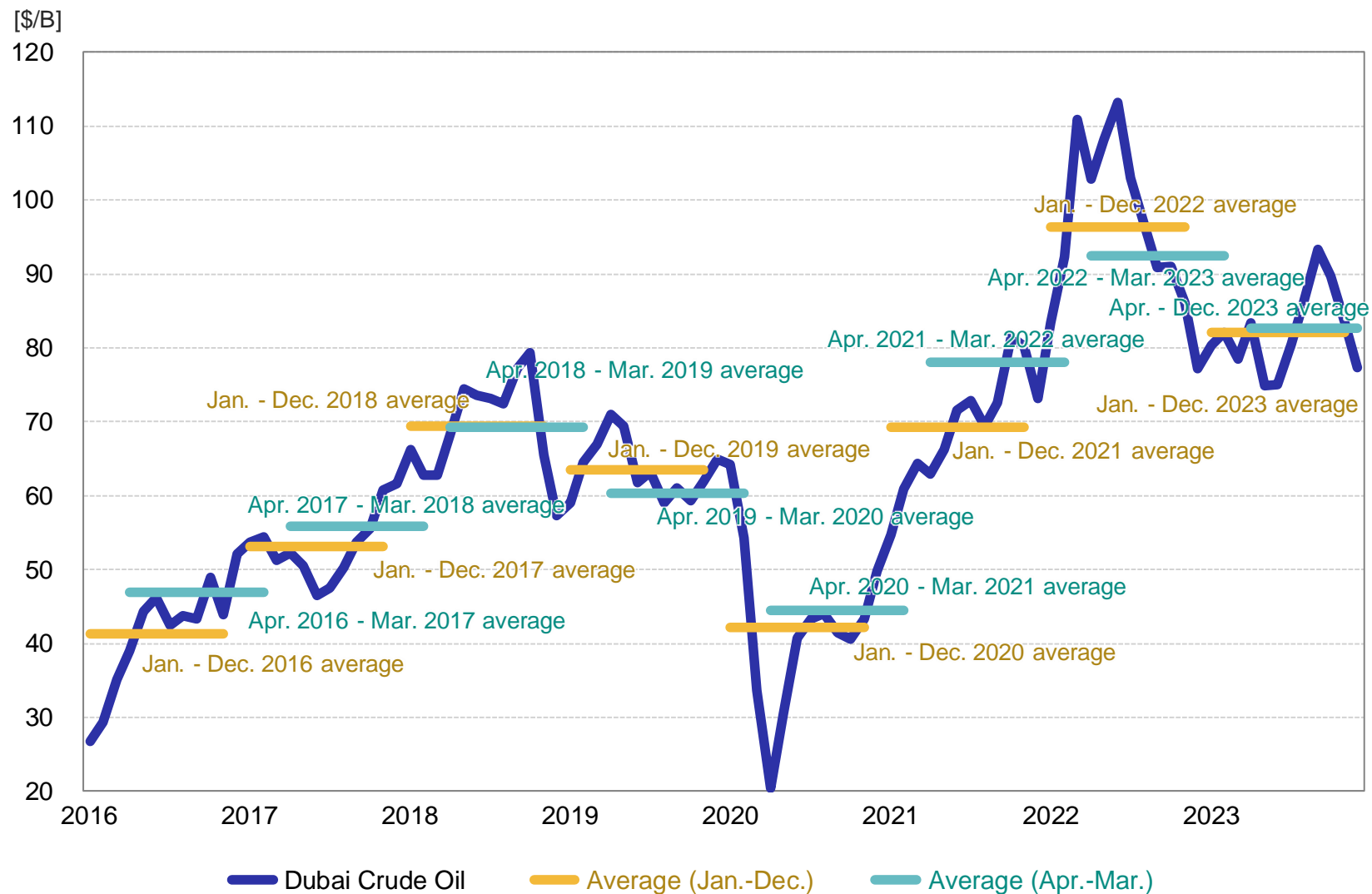
<sup>\*1</sup> April-March results for each fiscal year, <sup>\*2</sup> Directly operated SS and our wholly owned subsidiaries' dealer SS,

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

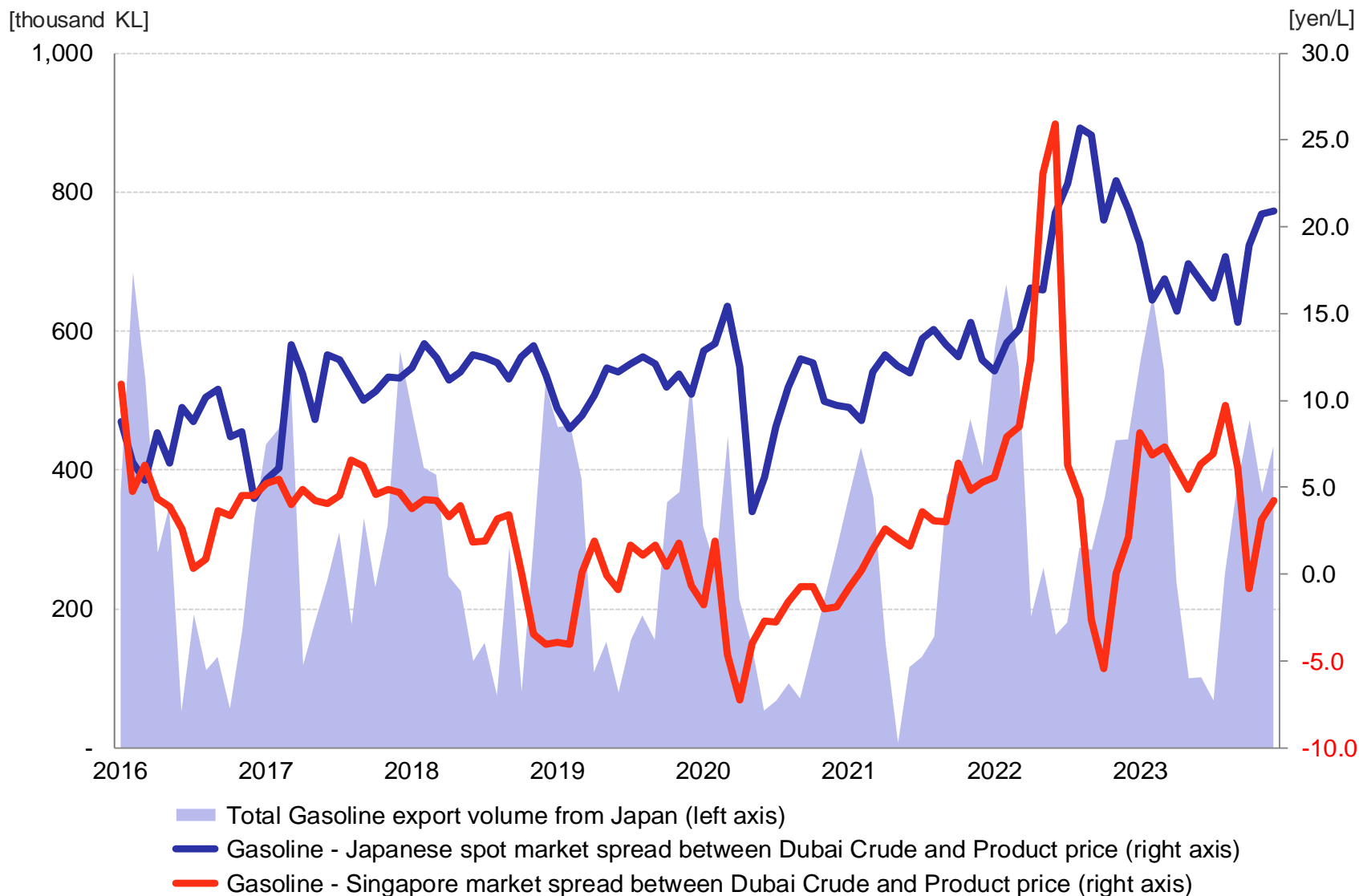
<sup>\*5</sup> From FY2018 to FY2022 :Total production volume of Abu Dhabi Oil Co., Ltd., Qatar Petroleum Development Co., Ltd.and United Petroleum Development Co., Ltd.  
From FY2023:Total production volume of Abu Dhabi Oil Co., Ltd., and United Petroleum Development Co., Ltd.



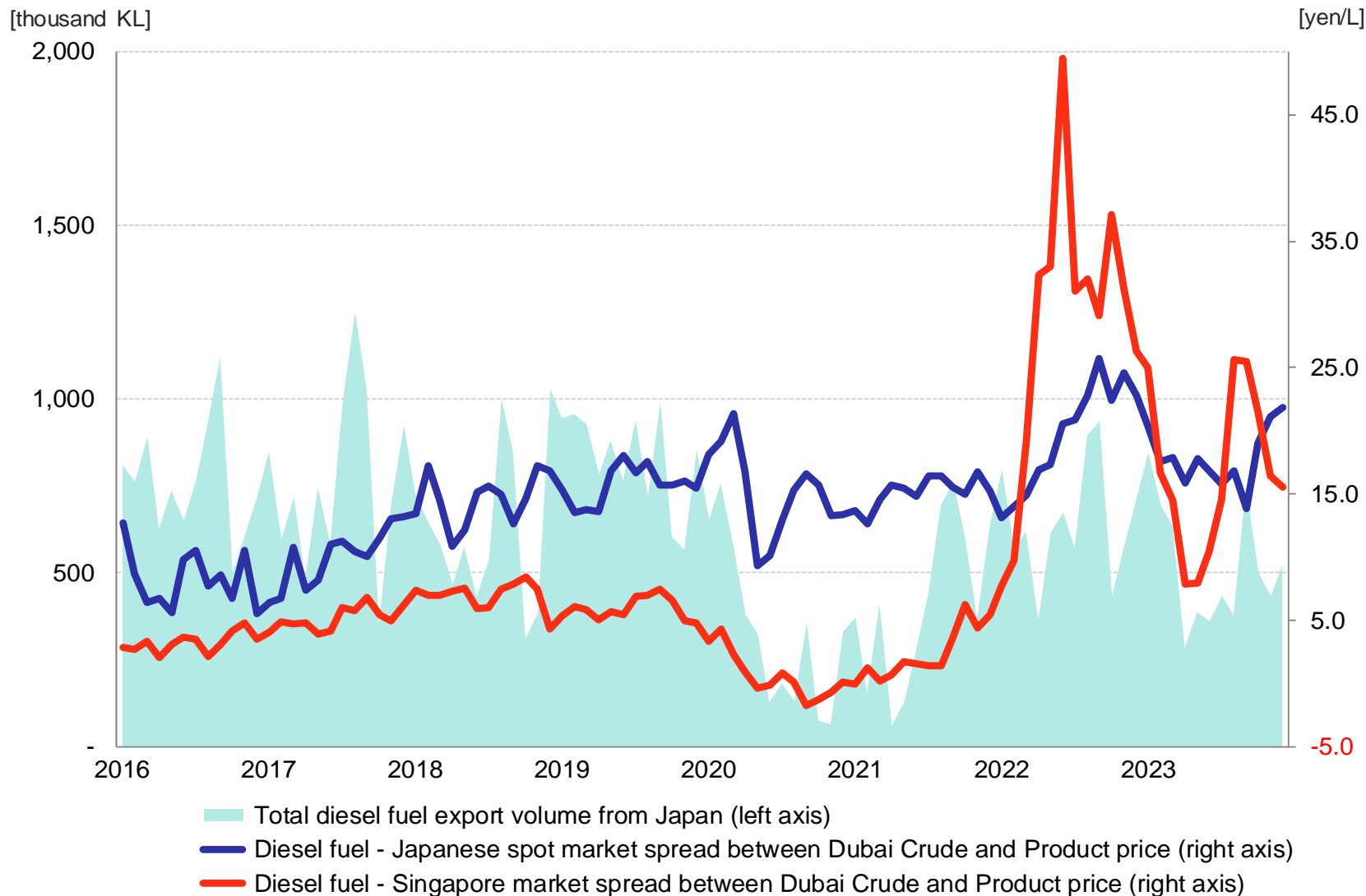
## Historical changes in Dubai crude oil price



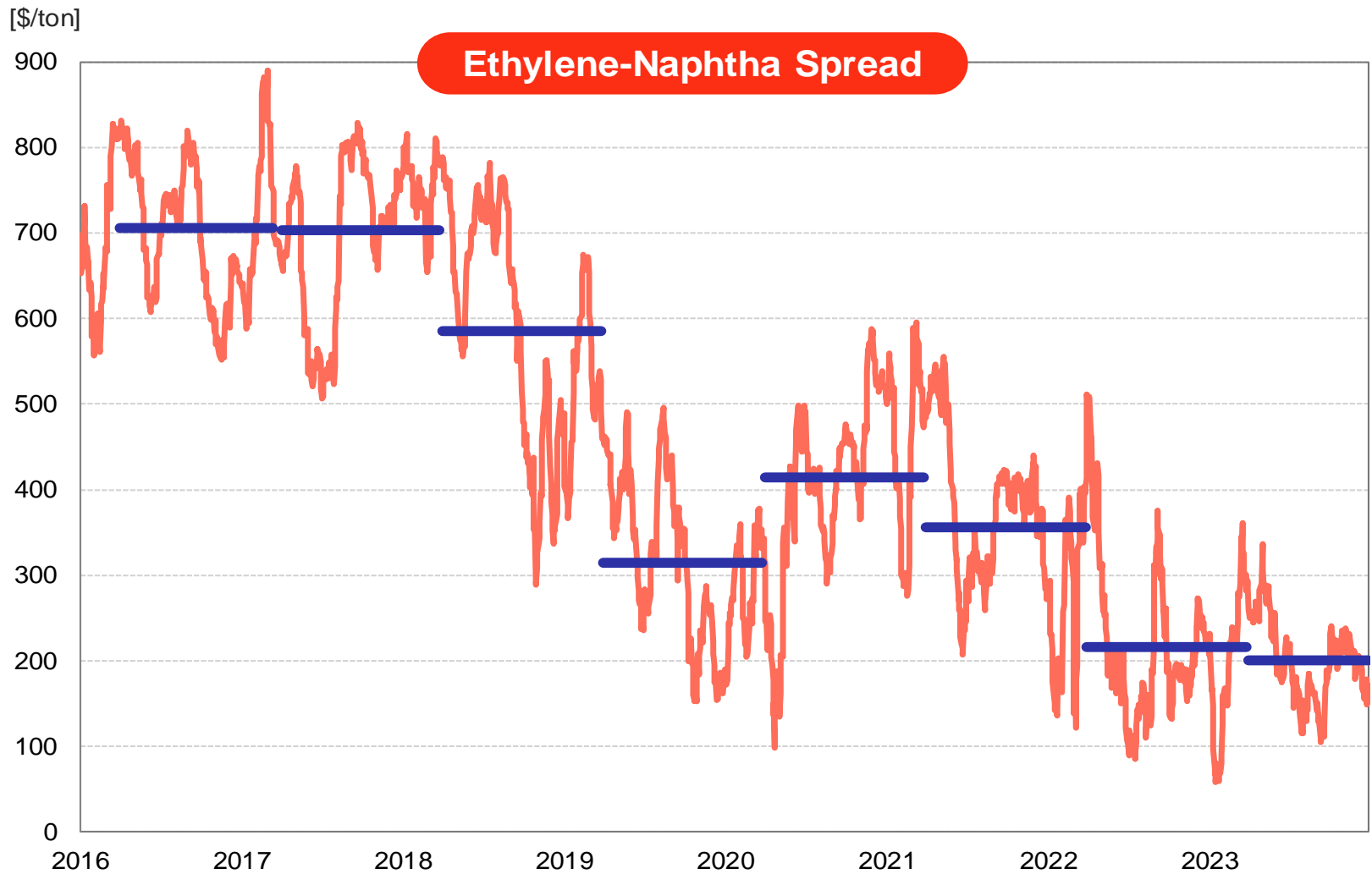
## Historical changes of gasoline export and margin (Domestic and Overseas)



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

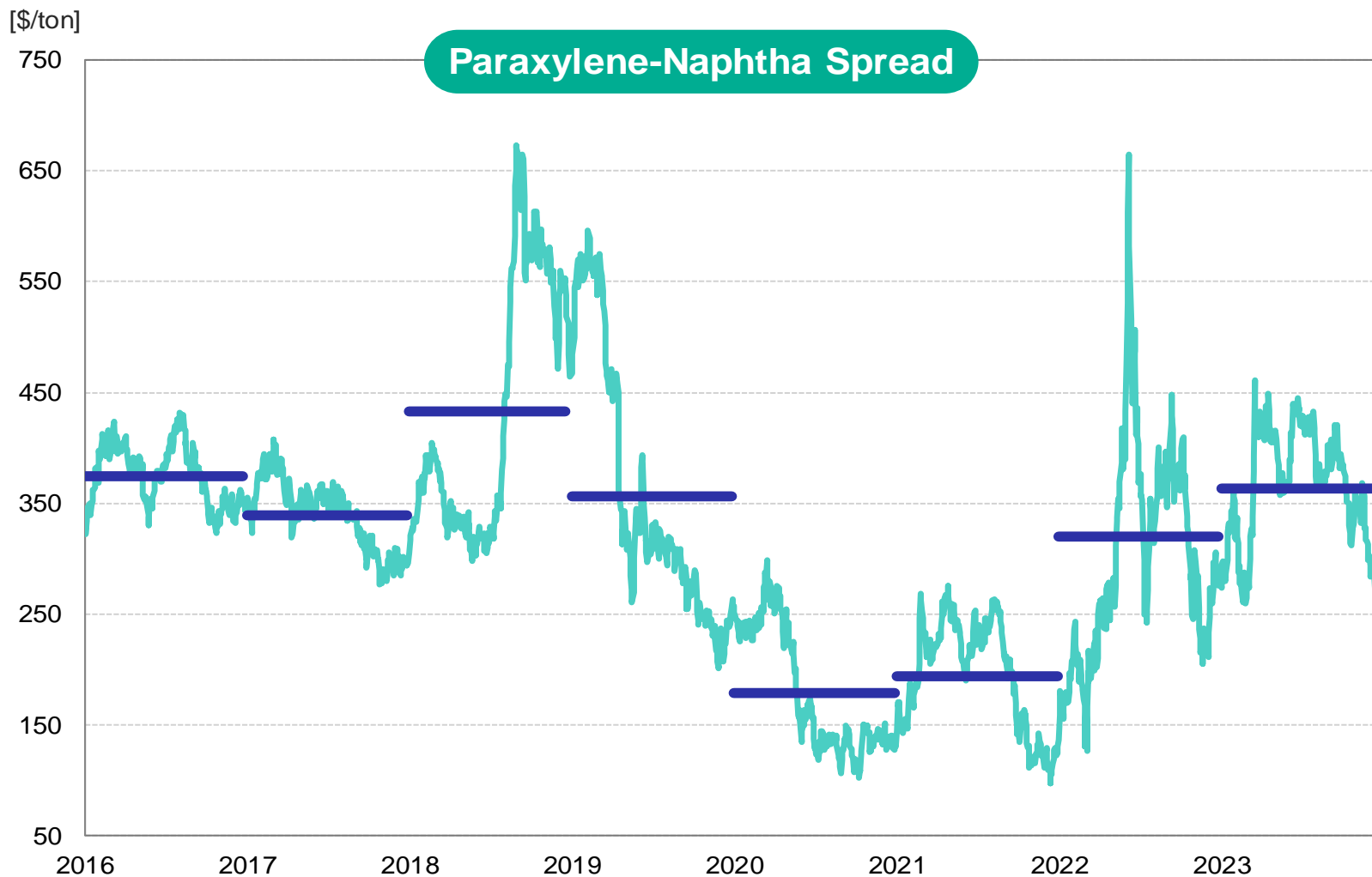


## Market conditions for Ethylene



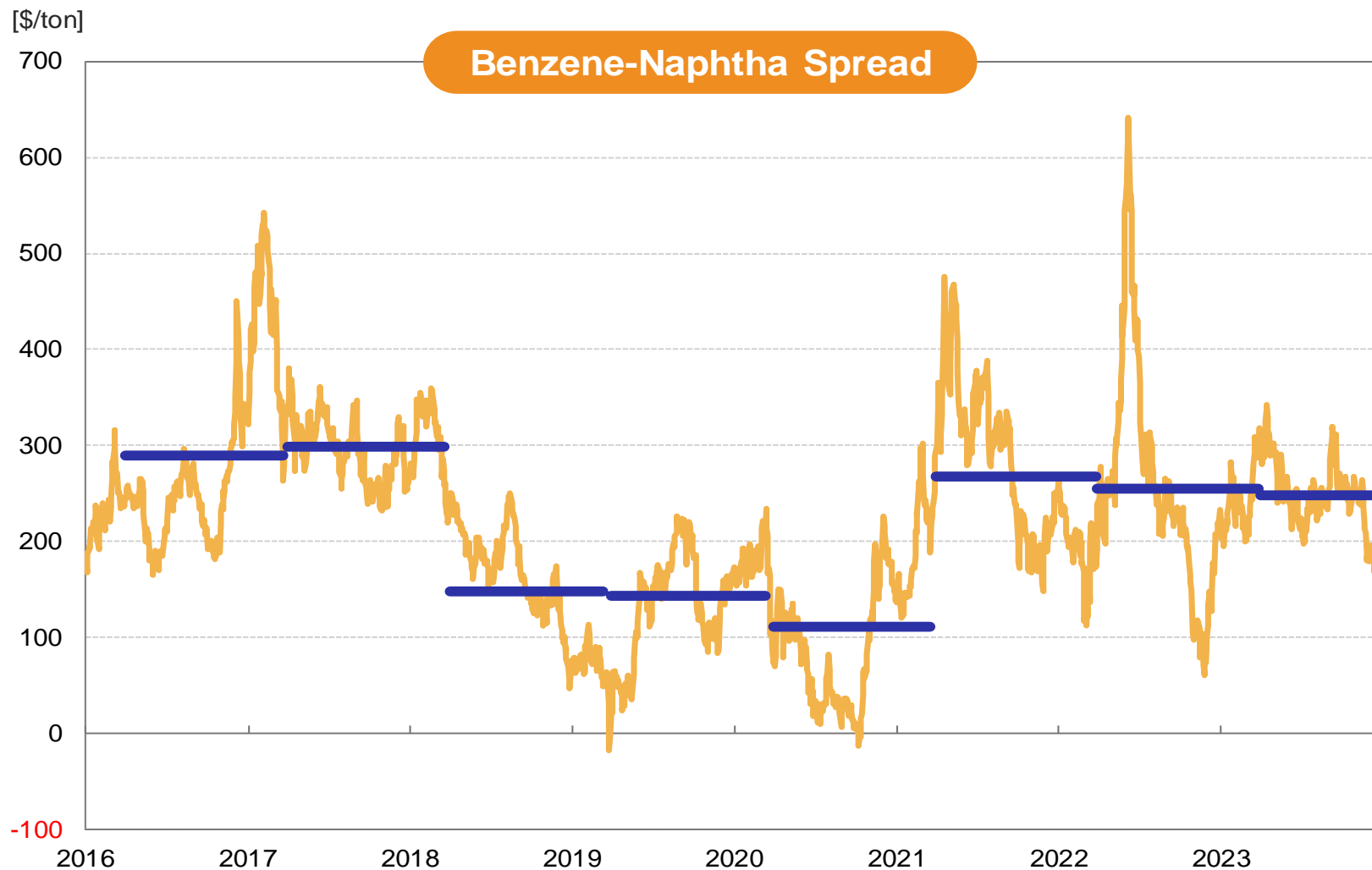
\*Horizontal line indicates the average of each calendar year (Apr.-Mar.).

## Market conditions for Paraxylene



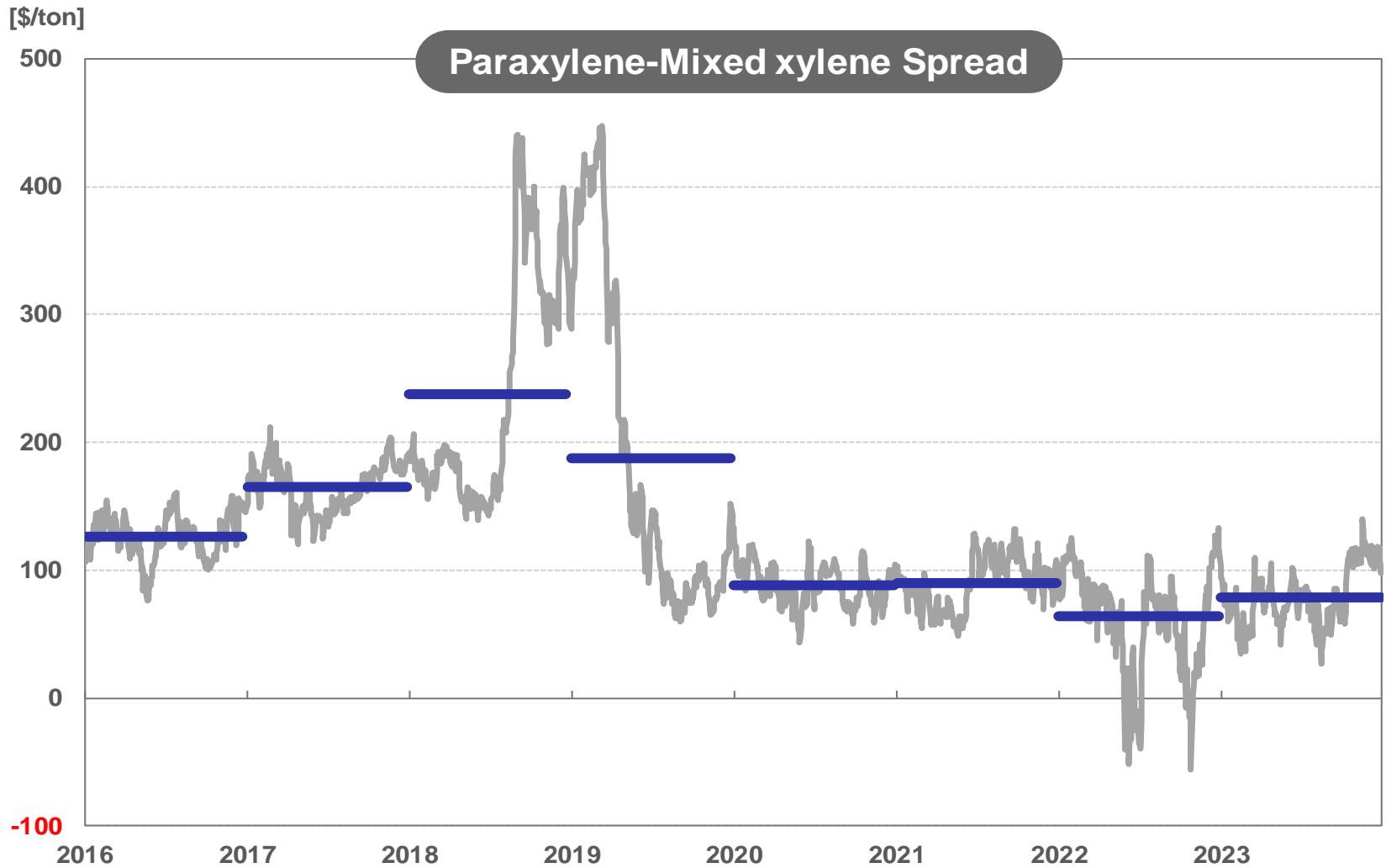
\*Horizontal line indicates the average of each calendar year (Jan.-Dec.).

## 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 (Announced in November 2023)



# [FY2023 Forecast]

## Outlook (Changes from FY2022) Precondition and business sensitivity

Unit : 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	Total	155.0	132.0	164.5	142.9	-9.5	-10.9	
2	(By segment)	Petroleum business	87.0	64.0	65.7	44.1	21.3	19.9
3		Petrochemical business	-7.0		3.8		-10.8	
4		Oil E&P business <sup>*1</sup>	64.0		84.5		-20.5	
5		Renewable energy business	2.0		2.6		-0.6	
6		Other <sup>*2</sup>	9.0		7.9		1.1	
7	Impact of inventory valuation		23.0		21.6		1.4	
8	Profit attributable to owners of parent		78.0		67.9		10.1	
9	Profit attributable to owners of parent excluding the impact of inventory valuation <sup>*3</sup>		62.0		52.8		9.2	

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

\*2 Including consolidated adjustment

\*3 Calculated after deducting 30% as tax equivalent for the impact of inventory valuation.

		FY2023 Forecast		FY2022 Results		Changes	
10	Dividend per Share (Plan) (yen)	¥300		¥150		+ ¥150	

■ Precondition		FY2023 Forecast	FY2022 Results	Changes
11	Dubai crude oil price (USD/B) (Apr.-Mar.)	84	93	-9
12	JPY/USD exchange rate (Apr.-Mar.)	143	135	8
13	Dubai crude oil price (USD/B) (Jan.-Dec.)	82	95	-13
14	JPY/USD exchange rate (Jan.-Dec.)	140	131	9

■ Sensitivity			Crude oil (Dubai)	JPY/USD exchange rate
15	Petroleum Business	Inventory Impact	+3.0 billion yen	+1.8 billion yen
16		Refinery fuel cost etc.	-0.5 billion yen	-0.3 billion yen
17	Total		+2.5 billion yen	+1.5 billion yen
18	Oil E&P Business		—	—

(\*) 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.

(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.

(\*) Figures above refer to impacts by crude oil price (US\$1/bbl) and yen-dollar exchange rate ( ¥ 1/USD)

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 sales		Operating profit		Ordinary profit		Ordinary profit (excluding the impact of inventory valuation)	
		Forecast	Changes from FY2022	Forecast	Changes from FY2022	Forecast	Changes from FY2022	Forecast	Changes from FY2022
1	Petroleum business	2,257.0	-194.5	80.0	14.6	87.0	21.3	64.0	19.9
2	Petrochemical business	336.0	-104.2	-4.7	-11.6	-7.0	-10.8	-7.0	-10.8
3	Oil E&P business	125.0	-13.0	59.5	-20.4	64.0	-20.5	64.0	-20.5
4	Renewable energy business	15.0	2.8	2.0	-0.1	2.0	-0.6	2.0	-0.6
5	Other, adjustment	-183.0	67.0	9.2	-0.3	9.0	1.1	9.0	1.1
6	Total	2,550.0	-241.9	146.0	-17.8	155.0	-9.5	132.0	-10.9

### 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

# Outline of the Cosmo Energy Group

Segment	Petroleum business	Petrochemical business	Oil E&P business	Renewable energy business	Other* Including consolidated adjustment	Total <sup>*2</sup>
Net sales <sup>1</sup>	¥2,257.0 billion	¥336.0 billion	¥125.0 billion	¥15.0 billion	¥-183.0 billion	¥2,550.0 billion
Ordinary profit <sup>1</sup>	¥87.0 billion	¥-7.0 billion	¥64.0 billion	¥2.0 billion	¥9.0 billion	¥155.0 billion
Ordinary profit excluding <sup>1</sup> impact of inventory valuation	¥64.0 billion	¥-7.0 billion	¥64.0 billion	¥2.0 billion	¥9.0 billion	¥132.0 billion
Major assets	<div>●CDU capacity <sup>*5,6</sup> 400,000 BD (Domestic market share: Approx. 12.0%)  ●Domestic Sales Volume <sup>*3</sup> 23,136 thousand KL  ●Number of Service station <sup>*5</sup> 2,649  ●Number of the “Cosmo the Card” Holders <sup>*5</sup> 3.84 million cards  ●Carlife Square apps <sup>*5</sup> 5.95 million downloads  ●Car leasing business for individuals <sup>*5</sup> Cumulative total 108,104 cars</div>	<div>●Olefinic production capacity <sup>*5</sup> Ethylene 1.29 mil tons/year  ●Aromatic production capacity <sup>*5</sup> Para-xylene 1.360 mil tons/year Benzene 0.735 mil tons/year Mixed-xylene 0.618 mil tons/year</div>	<div>●Partnerships Solid relationship of trust 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 <sup>*3</sup> Approx. 42 thousand B/D (Comparison with refining capacity: Approx. 11%)  ●Crude Oil Reserves (Proved and Probable) <sup>*4</sup> 133.0 million barrels (Equivalent to approx. 17 years of supply)</div>	<div>●Wind power plant capacity <sup>*4</sup> 302 MW (No. 3 in Japan and a 6% domestic share)  ●Solar power generation <sup>*5</sup> capacity 24 MW</div>	<div>●Corporate brand awareness 96%   * Survey of 2,000 person aged 16- 69 nationwide by an outside research firm (as of August 2022)</div>	
Major business companies related companies	<div>●Cosmo Oil ●Cosmo Oil Lubricants ●Gyxis (LPG)  ●Cosmo Oil Marketing ●Cosmo Oil Sales ●Cosmo Energy Solutions</div>	<div>●Maruzen Petrochemical (Chiba/Yokkaichi) ●Cosmo Matsuyama Oil ●CM Aromatics (Chiba) ●HD Hyundai Cosmo Petrochemical (Korea)</div>	<div>●Cosmo Energy Exploration &amp; Production ●Abu Dhabi Oil (UAE) ●Qatar Petroleum Development (Qatar) ●United Petroleum Development (UAE/Qatar) ●Cosmo E&amp;P Albahriya (UAE)</div>	<div>●Cosmo Eco Power (Wind power generation) ●CSD solar (Solar power generation)</div>	<div>●Cosmo Engineering ●Cosmo Trade and Service</div>	

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

\*6 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

## Refinery overview

### Crude oil processing capacity

**400,000 B/D**

\* Including the supply of petroleum product/semi product (37,000 barrels/day equivalent) from Idemitsu Kosan Group (Showa Yokkaichi Sekiyu) based on the business alliance

#### Yokkaichi Refinery

**86,000 B/D**

- Business alliance with Idemitsu Kosan Group (Showa Yokkaichi Sekiyu)

#### Chiba Refinery

**177,000 B/D**

Completion of pipeline connecting ENEOS Chiba Refinery and Cosmo Oil Chiba Refinery (2018-)

#### Sakai Refinery

**100,000 B/D**

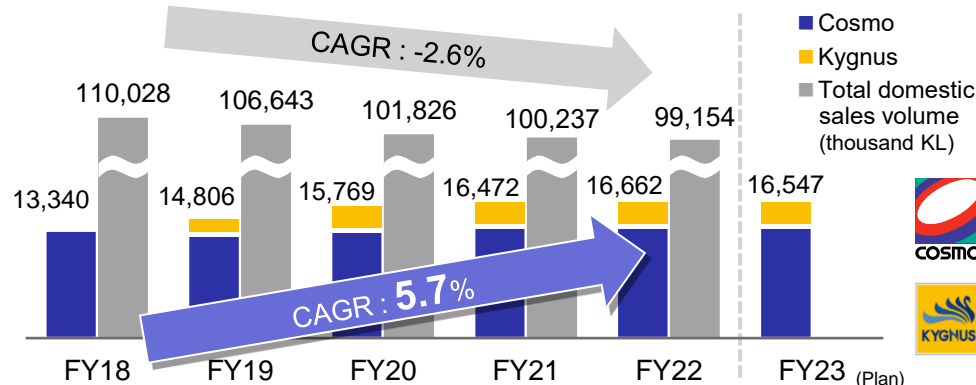
#### Strengthen competitiveness through secondary equipment investment

- Coker operation started in 2010
- Higher value-added products

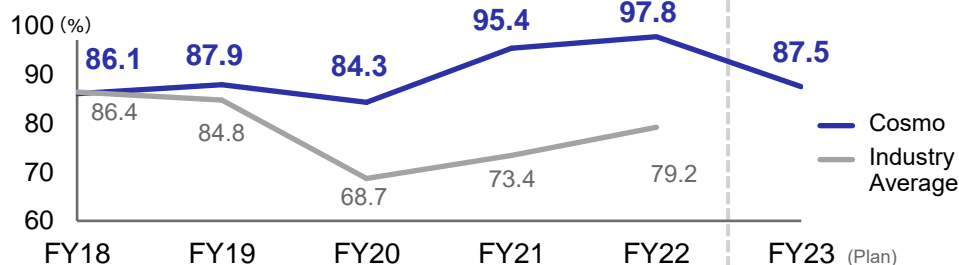
Coker capacity increased for IMO regulation (October 2019)

29,000 → **31,000 B/D**

## Trends in petroleum product demand and Cosmo sales volume



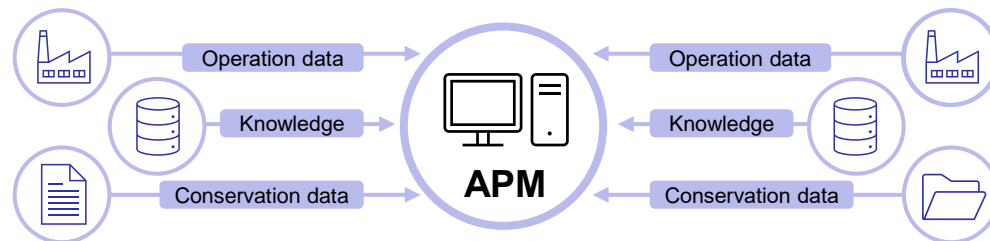
## Maintain high utilization of refinery



# [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.
  - 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.
  - 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



### 1 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

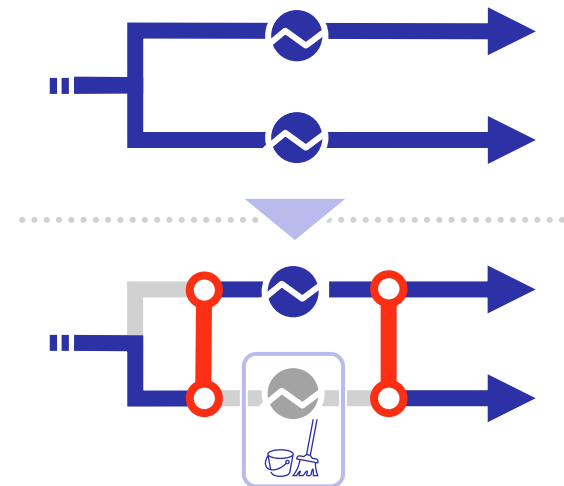
### 2 Risk identification and control Comprehensiveness improvement

- All equipment (230,000 items) can be centrally managed. (Shifting from decentralized management)
- Prioritize risks by risk assessment in APM process. (Eliminating the dependency on individuals and allows for quantitative and accurate evaluation.)

### 3 Formulation of strategies Manageability improvement

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

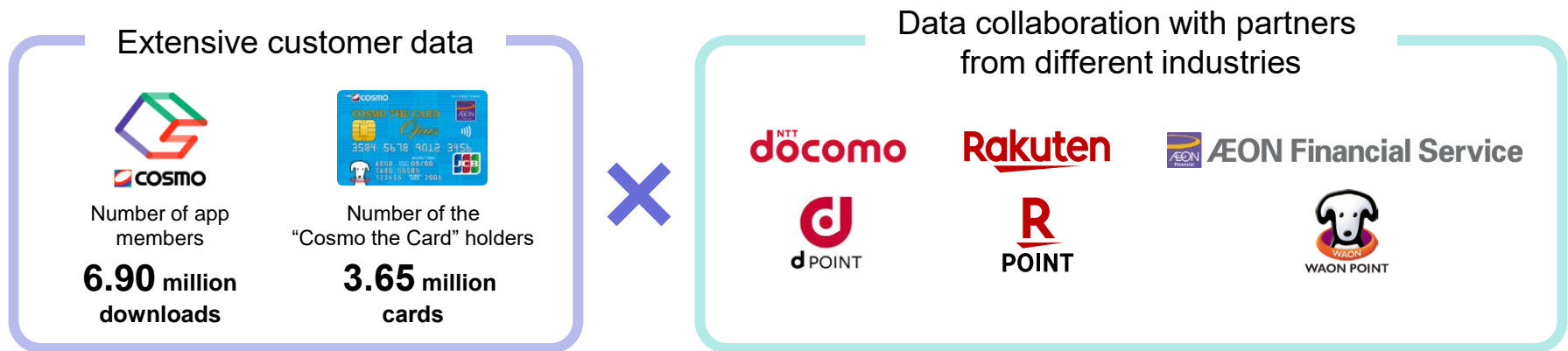
## Shortening of planned outages - 4 year run support



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



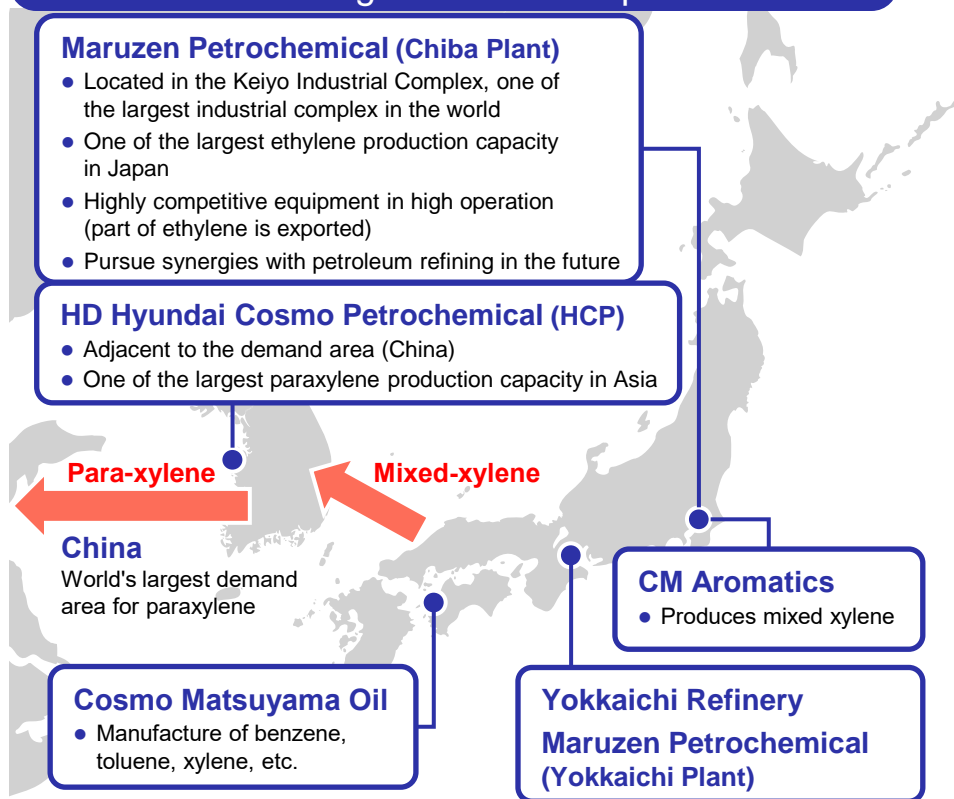
#### Customer Data Platform

- 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



## Production capacity

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

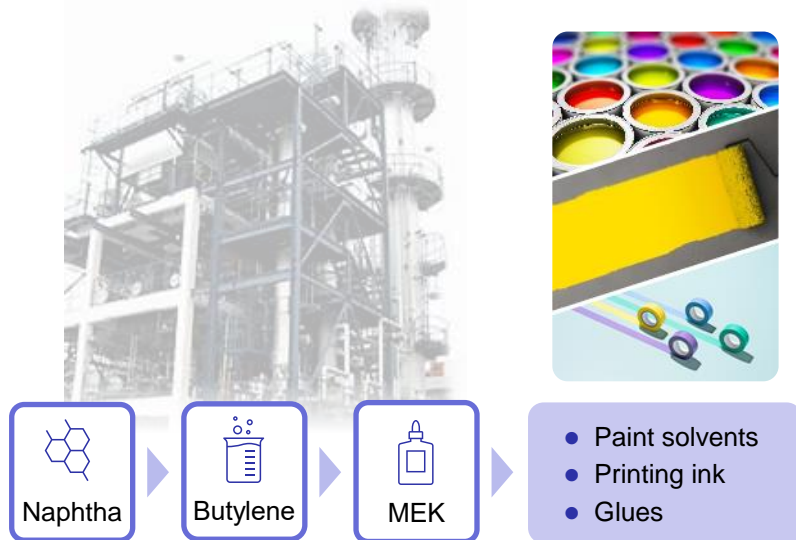
\* Includes production capacity of Keiyo Ethylene  
(55% owned, consolidated subsidiary of Maruzen Petrochemical)



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

- World-class methyl ethyl ketone(MEK) production capacity (170,000 tons/year). Highly cost-competitive, 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

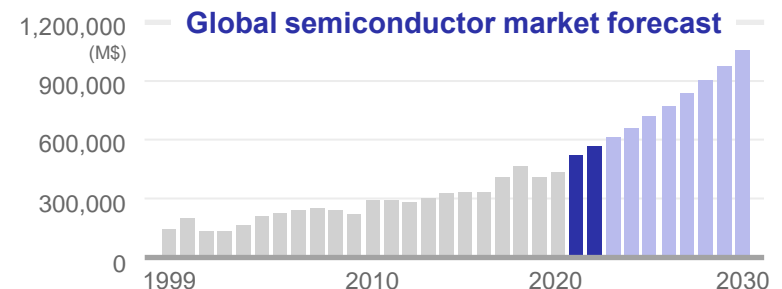
## Chemicals



## Functional Chemicals

### Market shares of polymers for photoresists

■ Maruzen Petrochemical







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

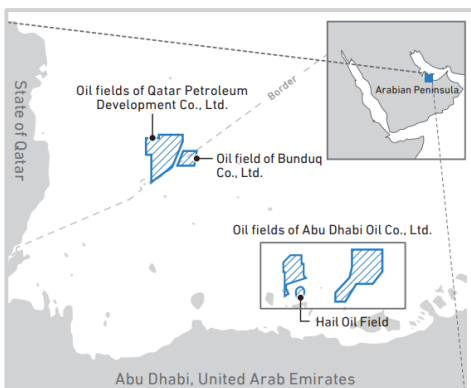
# [Oil E&P Business] Overview

- 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

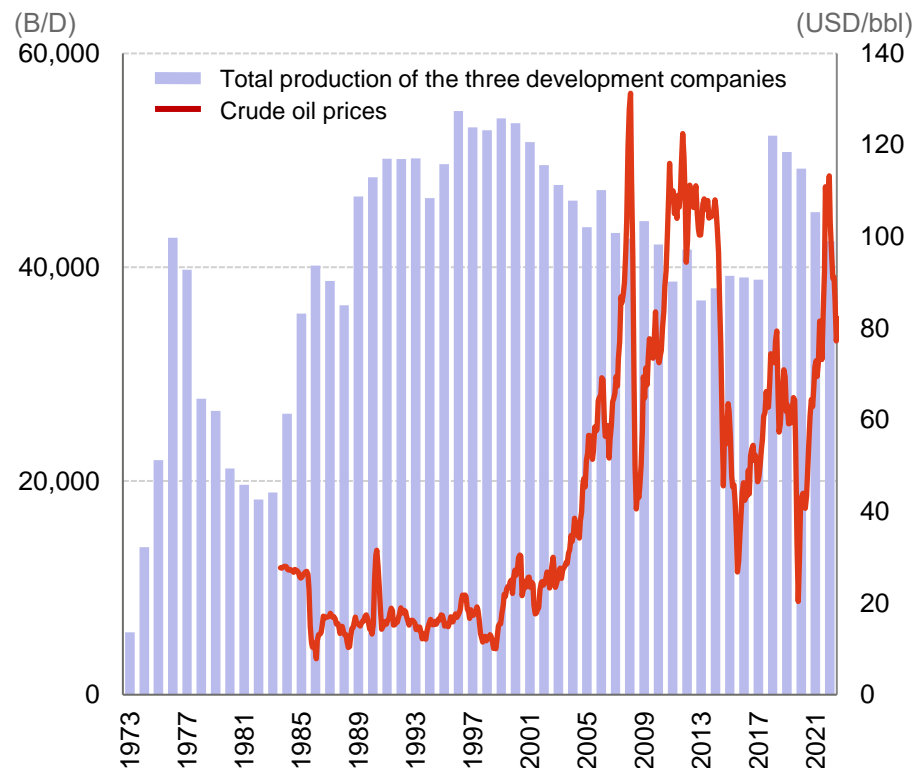
## Cosmo Energy Group Oil E&P Division

	ADOC	QPD	UPD
<b>Nationality</b>	 (The UAE)	 (Qatar)	  (The UAE) (Qatar)
<b>Cosmo's Ownership</b>	51.52%	100%	50%
<b>Foundation year</b>	1968	1997	1970

## Blocks of the Cosmo Energy Group



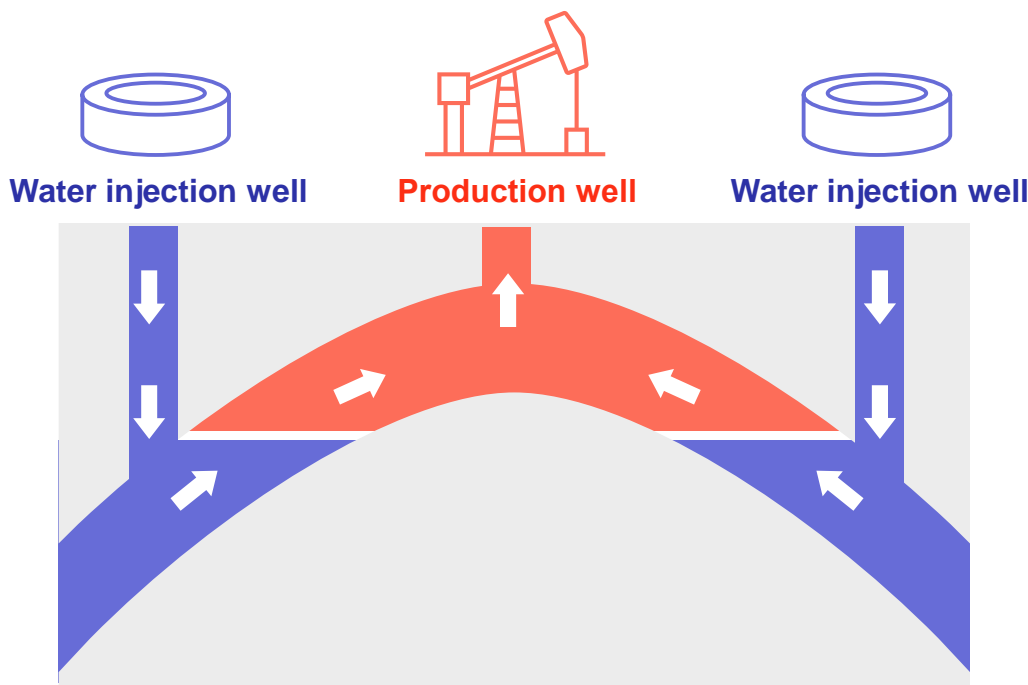
## Cosmo Energy Group Crude Oil Production



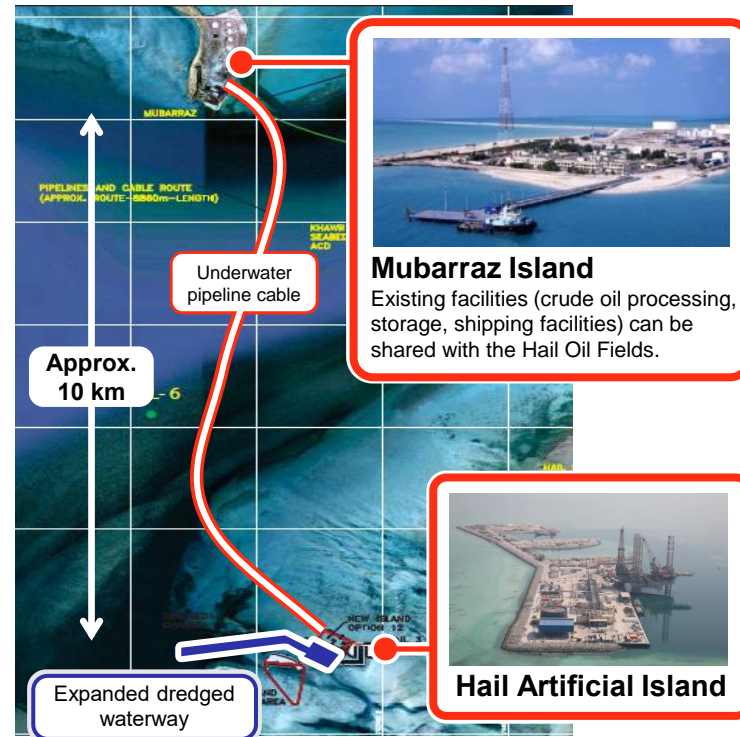
## [Oil E&P Business] Secondary recovery investment in the Hail Oil Field

- 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

### Water injection



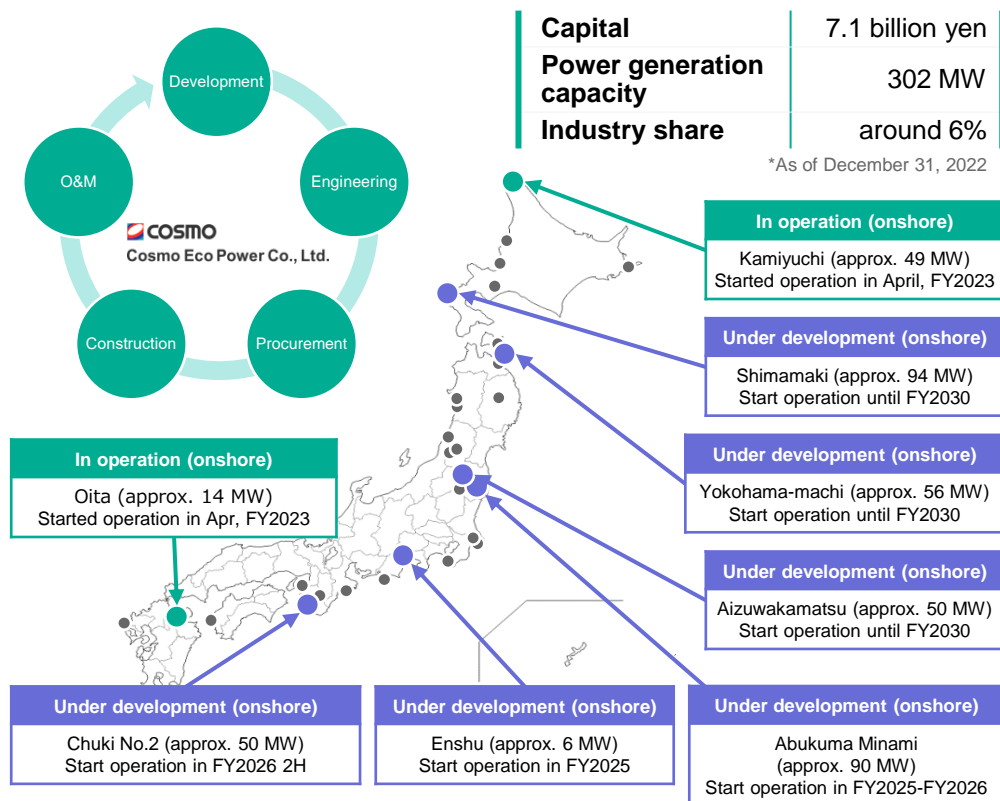
### The Hail Oil Field and existing shipping terminal (Mubarraz Island)



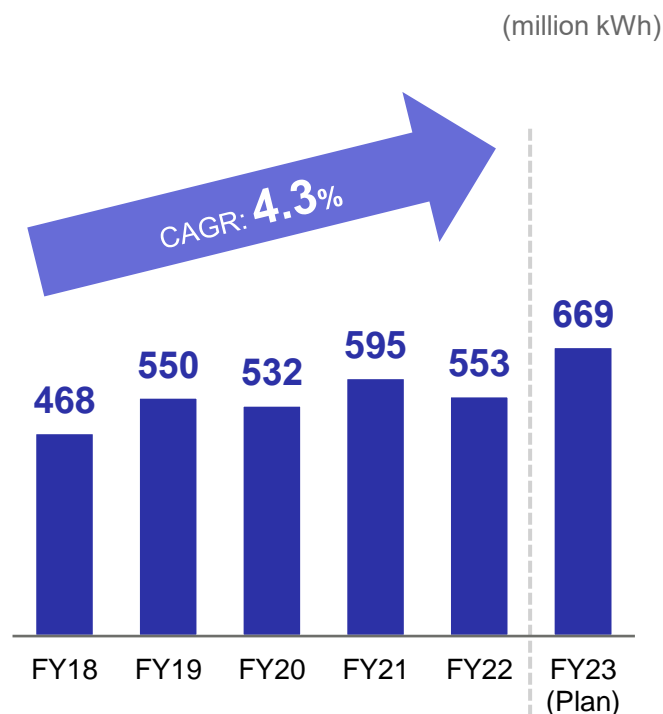
# [Renewable Energy Business] Overview

- 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

## Outline of Cosmo Eco Power Co., Ltd.



## Electricity sales volume



# Disclaimer FORWARD-LOOKING STATEMENTS

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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.