



Results for the Second Quarter of Fiscal 2023

November 8, 2023

Cosmo Energy Holdings, Co., Ltd.

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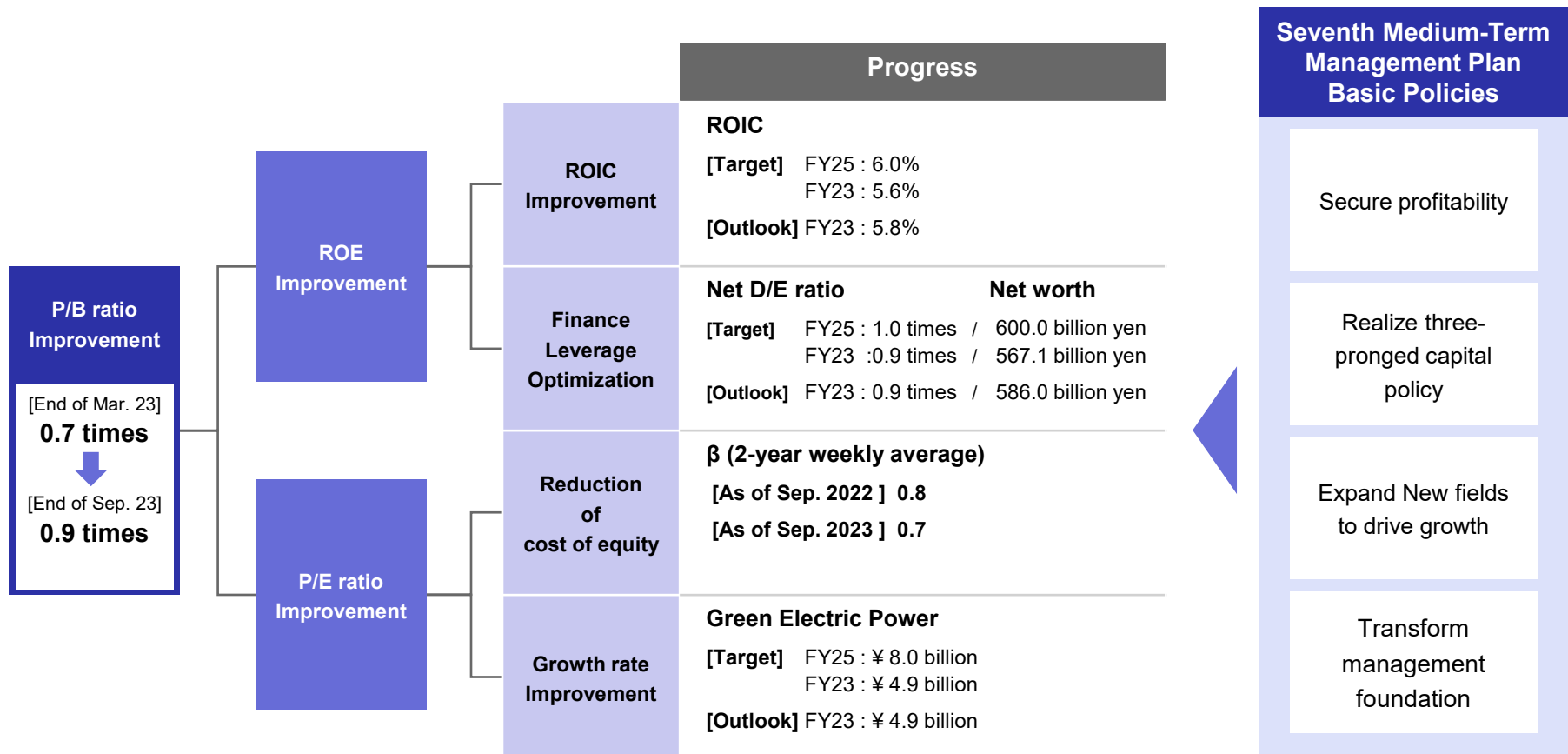
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Forecast for FY2023 Performance (Revisions of Forecast for FY2023)

Initiatives to Enhance Enterprise Value

Initiatives to Enhance Enterprise Value

- P/B ratio improved to around 0.9 times recently on the back of the progress of the measures in the 7th medium-term management plan in the first half FY2023.
- Aim to achieve P/B ratio 1.0 times at an early stage by achieving a total return ratio of 60% within the medium-term management plan and by working to build an internal control system to improve ROIC.



Revision of Dividend Forecast

Revision of Dividend Forecast

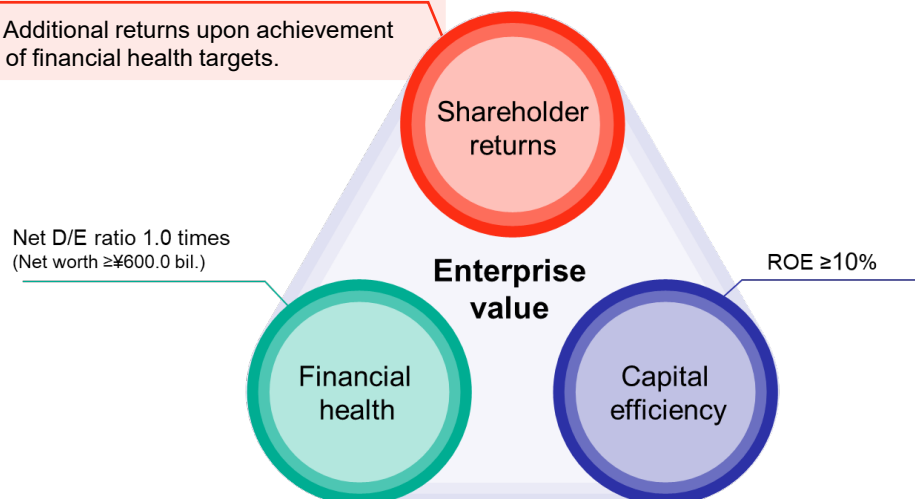
- FY2023 dividend will be ¥300 per share (planned) (interim ¥150, year-end ¥150) (up ¥150 from the previous year, and up ¥50 from the previous announcement)
The minimum dividend remain unchanged at ¥250 per share.

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

* Additional returns upon achievement of financial health targets.

Consider the amount of dividends after taking into account BPS (Net worth per share) and dividend yield.

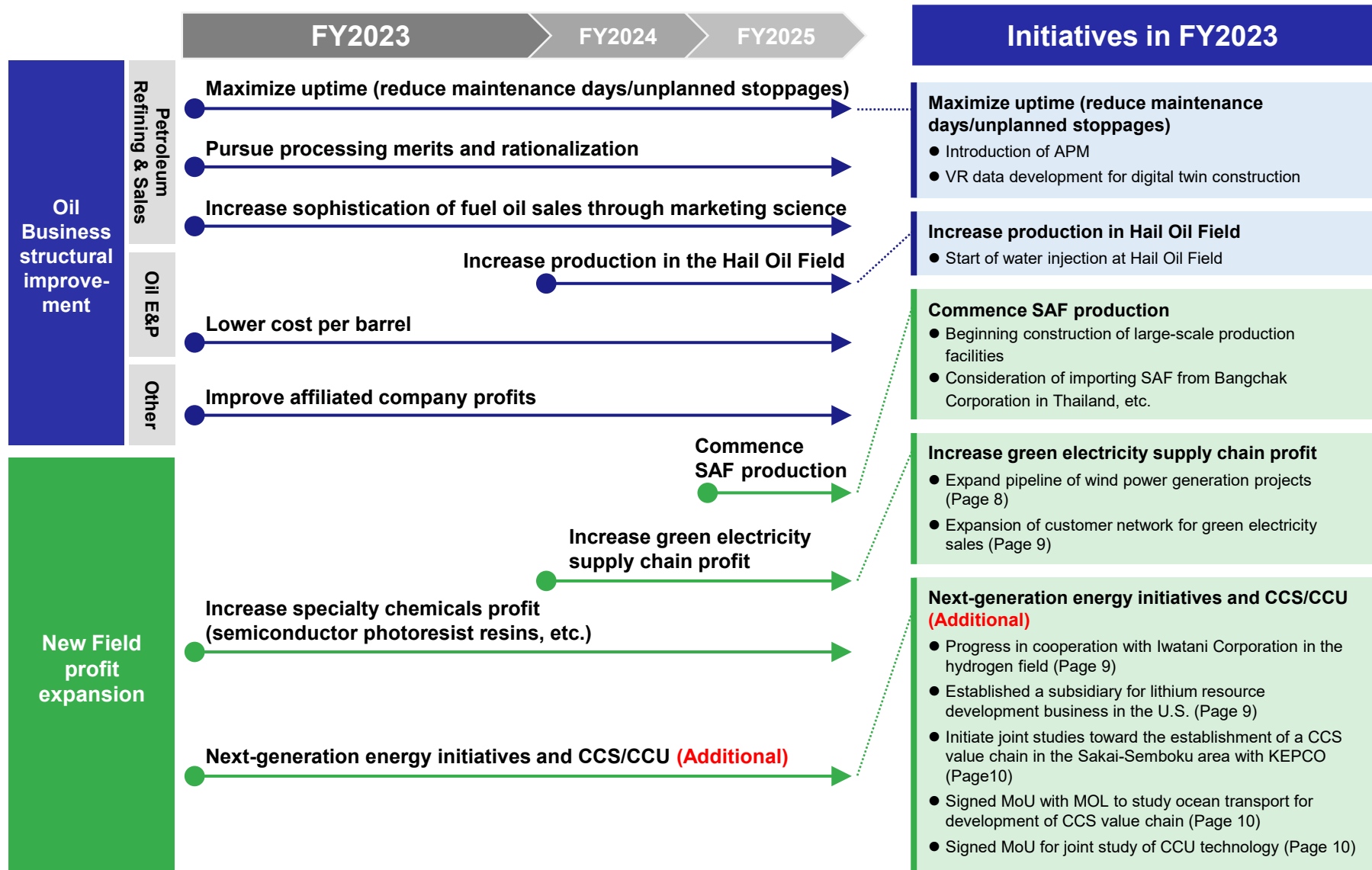
Aim for early achievement of P/B ratio 1.0 times and establishment of more than P/B ratio 1.0 times



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

Progress in the 7th Consolidated Medium-Term Management Plan
Oil & New ~Next Stage~

Progress in the 7th Consolidated Medium-Term Management Plan

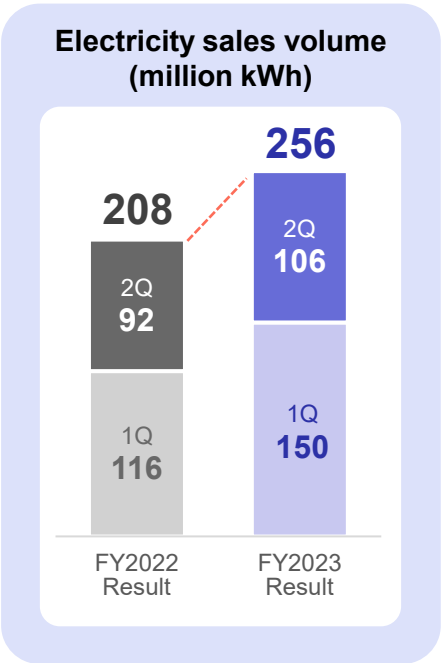


New Field profit expansion

Increase green electricity supply chain profit

- In the onshore wind power business, the start of operation of replacement projects, Shin-Mutsu-Ogawara and Shin-Iwaya, has been moved up to FY2024.
- Regarding offshore wind power generation, Offshore northwest of Aomori and Offshore near Yuza, Yamagata were designated as promotion areas.

Status	Project	Facility capacity	
In operation	Kamiyuchi (Hokkaido)	Approx. 49MW	
In operation	Oita (Oita)	Approx. 14MW	
In operation	Onshore site	237MW	
Total in operation		Approx. 300MW	
Being developed	Shin-Mutsu-Ogawara (Aomori)	Approx. 33MW	Operations scheduled to start in FY2024
Being developed	Shin-Iwaya (Aomori)	Approx. 27MW	
Being developed	Enshu (Shizuoka)	Approx. 6MW	Operations scheduled to start in FY2025
Being developed	Abukuma-minami 1st (Fukushima)	Approx. 35MW ^{*1}	
Being developed	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	Shimamaki (Hokkaido)	Approx. 95MW	Operations scheduled to start until FY2030
Being developed	Yokohama machi (Aomori)	Approx. 56MW	
Being developed	Aizuwakamatsu (Fukushima)	Approx. 50MW	
Total under construction and being developed		Approx. 400MW	
Other projects in development		Approx. 200MW	
Total		Approx. 900MW^{*1}	



Status	Project	Facility capacity	Subject to the act on renewable energy sea area utilization	
In operation	Akita Port & Noshiro Port	Approx. 140MW ^{*1}	Harbor area ^{*3}	
Being developed	Akita (Offshore near Oga-shi, Katagami-shi, and Akita-shi, Akita)	Up to 500MW ^{*1,2}	Promotion area	
Being developed	Offshore north of Niigata (Offshore near Murakami-shi, Taira-shi, Niigata)	Up to 400MW ^{*1,2}	Promotion area	
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 500MW ^{*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 Hiyama, Hokkaido (Offshore near Shimamaki, Hokkaido)	Up to 1,000MW ^{*1,2}	High potential area	

~ FY2025 ~ FY2030 FY2030 ~

*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

New Field profit expansion

Increase green electricity supply chain profit / Next-generation energy initiatives and CCS/CCU

- Enhancing the value across entire supply chain through expansion of customer network for green electricity sales
- Collaboration with Iwatani Corporation in the engineering field following the hydrogen station for entry into the hydrogen supply chain



Increase green electricity supply chain profit

New!

Introduced Cosmo Denki Business Green in Kawasaki City, Yokosuka City, and Hayama Town in Kanagawa Prefecture

- Started supplying 100% renewable energy electricity to 207 facilities in Kawasaki City, including municipal schools and ward offices.
- Began supplying electricity from virtually all renewable energy sources to all 72 elementary and junior high schools in Yokosuka City
- Began supplying electricity from virtually all renewable energy sources to 15 public facilities in Hayama Town



Kawasaki Municipal Kawasaki Senior High School and Junior High School



Yokosuka City Oogusui junior high School



Next-generation energy initiatives

New!

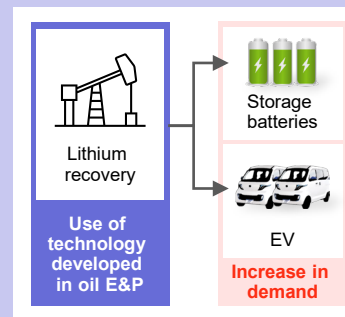
Established a joint venture with Iwatani Corporation to collaborate in the engineering business for hydrogen-related projects

- Aiming to win orders for large-scale hydrogen supply chain projects by leveraging Cosmo Engineering's technologies and capabilities and Iwatani Corporation's know-how in the hydrogen field.

New!

Establishment of a US subsidiary aiming to newly enter the lithium resource development business

- Demand for lithium is also expected to increase with the growth of EV storage batteries and storage batteries for balancing electricity supply and demand.
- Advancing studies for commercialization by utilizing our skilled operational technologies such as sub-surface evaluation or drilling developed over many years in the oil E&P business



New Field profit expansion

Next-generation energy initiatives and CCS/CCU

- To establish a CCS value chain for the low carbonization, in collaboration with companies with strengths in each area.
- Promoting consideration of effective utilization of CO₂ (CCU) beyond CCS.

CCS (Carbon dioxide Capture and Storage)

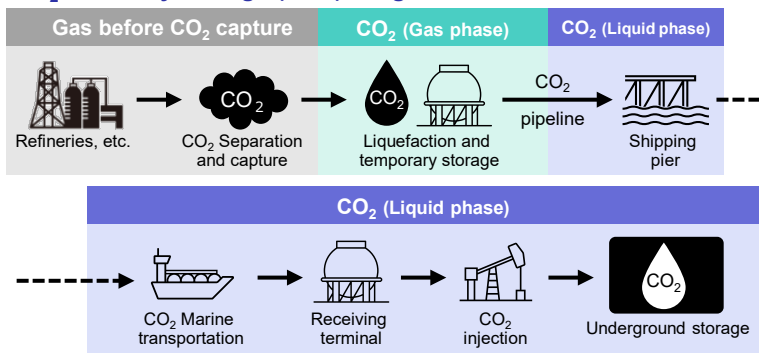
New! Started joint study with KEPCO to establish a CCS value chain in the Sakai-Semboku area

Joint study with Kansai Electric Power Co. (KEPCO) on liquefaction, storage, and shipping facilities, aiming to design larger-scale and more efficient facilities.

New! Signed MoU with MOL to study ocean transport for development of CCS value chain

Aiming to accumulate know-how such as specifications of liquefied CO₂ vessels and transport costs, concluded a MoU on marine transportation with Mitsui O.S.K. Lines (MOL).

CO₂ Recovery/Storage (CCS) image

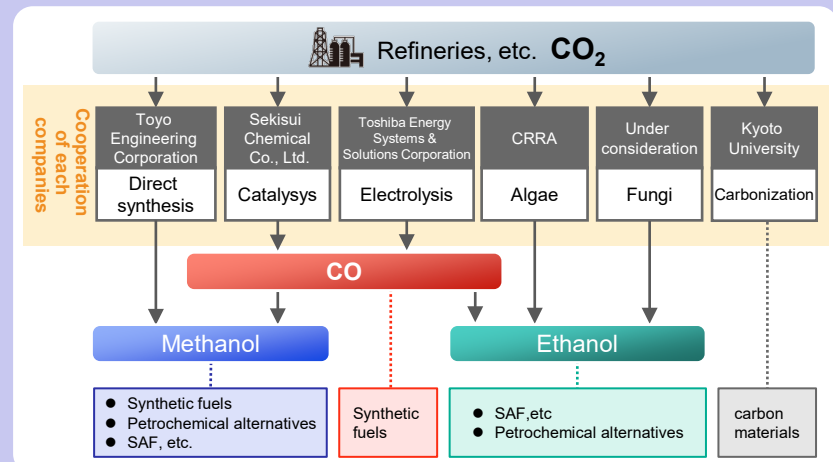


CCU (Carbon dioxide Capture and Utilization)

New! MOUs signed with four companies with CO₂ Conversion to Valuable Utilities (CCU) technology for joint studies

Technologies for producing methanol and ethanol from CO₂ and technologies for turning methanol and ethanol into end products, both of which are in the practical and development/demonstration stages.

Consideration will be carried out with the cooperation of each company on the progress of technological innovation, CO₂ reduction effects, investment profitability, etc.



Highlights of 2Q FY2023 Results and FY2023 Forecast

Highlights of 2Q FY2023 Results and FY2023 Forecast

Highlights of 2Q FY2023

- Ordinary profit was ¥83.1 billion and net profit was ¥36.1 billion.
- Ordinary profit excluding the impact of inventory valuation was ¥77.9 billion, and net income excluding the impact of inventory valuation was ¥32.5 billion.

Highlights of FY2023 Forecasts (Revisions to Forecasts)

- Ordinary profit and net income are expected to be ¥155.0 billion and ¥78.0 billion, respectively.
- Ordinary profit excluding the impact of inventory valuation is expected to be ¥132.0 billion, and net income excluding the impact of inventory valuation is expected to be ¥62.0 billion.

		Unit: billion yen			Unit: billion yen	
		2Q FY2023 Results	2Q FY2022 Results	Change	FY2023 Forecast	Change
1	Ordinary profit	83.1	173.8	-90.7	155.0	-9.5
2	(Impact of inventory valuation)	5.2	91.8	-86.6	23.0	1.4
3	Ordinary profit excluding the impact of inventory valuation	77.9	82.0	-4.1	132.0	-10.9
4	Profit attributable to owners of parent	36.1	94.9	-58.8	78.0	10.1
5	Profit attributable to owners of parent excluding the impact of inventory valuation	32.5	30.6	1.9	62.0	9.2
6	Dubai crude oil price (USD/B) (Apr.-Sep.)	82	102	-20	84	-9
7	JPY/USD exchange rate (yen/USD) (Apr.-Sep.)	141	134	7	143	8

		2Q FY2023 Results	FY2022 Results	Change	FY2023 Forecast	Change
8	Net worth	563.4	527.9	35.5	586.0	58.1
9	Net worth ratio	25.8%	24.9%	0.9%	27.4%	2.5%
10	Net Debt to Equity Ratio (times)	0.83	1.10	-0.27	0.93	-0.17
11	ROE	-	13.8%	-	14.0%	0.2%
12	ROE (excluding the impact of inventory valuation)	-	10.7%	-	11.1%	0.4%
13	ROIC (excluding the impact of inventory valuation)	-	6.1%	-	5.8%	-0.3%

2Q FY2023 Results

2Q FY2023 Review

- Consolidated ordinary profit excluding the impact of inventory valuation was ¥77.9 billion (Down ¥4.1 billion year on year).
- Due to the impact of inventory valuation of ¥5.2 billion, consolidated ordinary profit was ¥83.1 billion (Down ¥90.7 billion year on year).
- Net profit was ¥36.1 billion (Down ¥58.8 billion year on year).

Petroleum business

Ordinary profit excluding the impact of inventory valuation

¥43.5 billion

(Up ¥12.6 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

- 3.4 billion

(Down ¥11.2 billion year on year)



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

Oil development business

Ordinary profit

¥33.0 billion

(Down ¥8.1 billion year on year)



Profit decreased due to a temporary decline in the production volume caused by the impact of construction work in the Hail Oil Field.

Renewable Energy Business

Ordinary profit

¥0.1 billion

(Up ¥0.2 billion year on year)



Profit increased due to improved wind conditions.

[2Q FY2023 Results]

Consolidated profit Statements – Changes from 2Q FY2022

Unit: billion yen

		2Q FY2023 Results	2Q FY2022 Results	Changes	FY2023 Forecast
1	Net sales	1,308.5	1,371.6	-63.1	2,550.0
2	Operating profit	75.9	172.9	-97.0	146.0
3	Non-operating income/expenses, net	7.2	0.9	6.3	9.0
4	Ordinary profit	83.1	173.8	-90.7	155.0
5	Extraordinary income/losses, net	5.6	0.8	4.8	-3.1
6	Income taxes	47.9	73.3	-25.4	66.4
7	Profit attributable to non-controlling interests	4.6	6.4	-1.8	7.4
8	Profit attributable to owners of parent	36.1	94.9	-58.8	78.0
9	Impact of inventory valuation	5.2	91.8	-86.6	23.0
10	Ordinary profit excluding the impact of inventory valuation	77.9	82.0	-4.1	132.0
11	Dubai crude oil price (USD/B) (Apr.-Sep.)	82	102	-20	84
12	JPY/USD exchange rate (yen/USD) (Apr.-Sep.)	141	134	7	143
【Reference】					
13	Dubai crude oil price (USD/B) (Jan.-Jun.) (*1)	81	90	-9	82
14	JPY/USD exchange rate (yen/USD) (Jan.-Jun.)	135	123	12	140
15	CDU operating ratio (Calendar Day basis) (*2)	85.9%	95.7%	-9.8%	87.5%
16	CDU operating ratio (Streaming Day basis) (*2,3)	92.7%	97.7%	-5.0%	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.

[2Q FY2023 Results]

Outline of Consolidated Profit by Segment – Changes from 2Q FY2022

Unit : billion yen

		2Q FY2023 Results		2Q FY2022 Results		Changes	
		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	83.1	77.9	173.8	82.0	-90.7	-4.1
2	Petroleum business	48.7	43.5	122.7	30.9	-74.0	12.6
3	Petrochemical business	-3.4		7.8		-11.2	
4	Oil E&P business (*1)	33.0		41.1		-8.1	
5	Renewable energy business	0.1		-0.1		0.2	
6	Other (*2)	4.7		2.3		2.4	

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

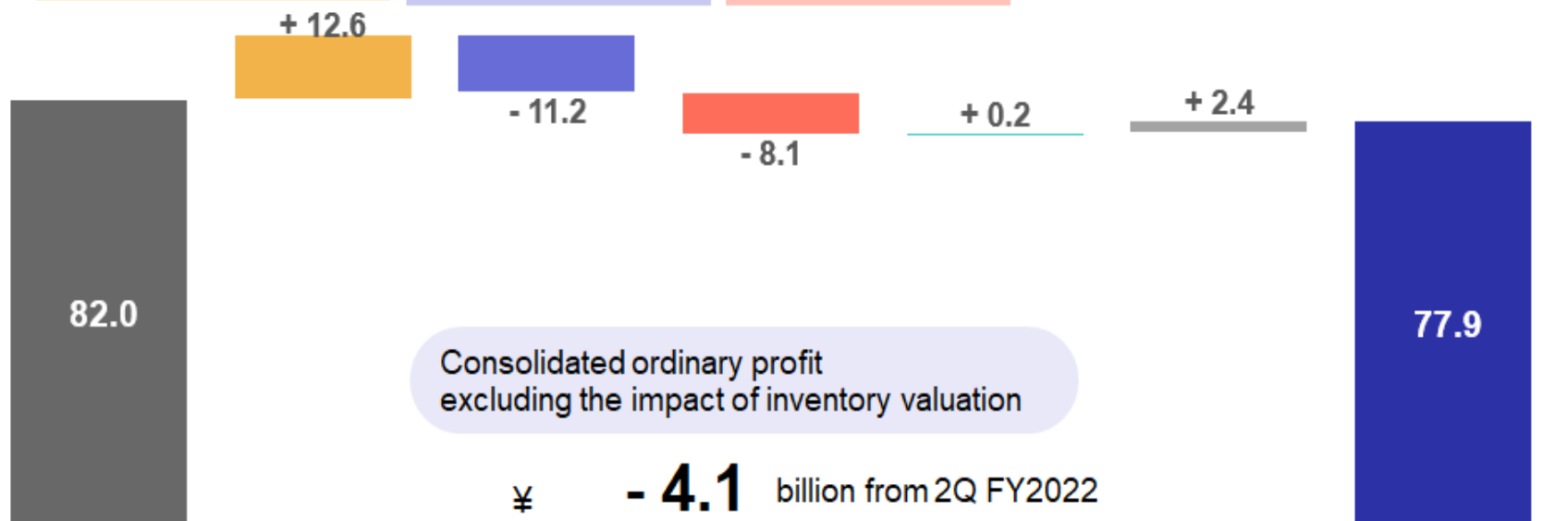
(*2) Including consolidated adjustment.

[2Q FY2023 Results]

Consolidated Ordinary Profit (excluding the impact of inventory valuation) - Changes from 2Q FY2022

Unit : billion yen

Margins & Sales volume	- 2.0	Price	- 8.3	Price	+ 0.8
Expense, other	+ 11.2	Volume	- 0.7	Volume	- 5.1
Refinery trouble	+ 3.4	Expense, other	- 2.2	Expense, other	- 3.8



2Q FY2022 Results	2Q FY2023 Results					
Ordinary profit excl. the impact of inventory valuation	Petroleum business	Petrochemical business	Oil E&P business	Renewable energy business	Other	Ordinary profit excl. the impact of inventory valuation
82.0	30.9	7.8	41.1	-0.1	2.3	77.9
	43.5	-3.4	33.0	0.1	4.7	

[FY2023 2Q Results]

Outline of Consolidated Cash Flows and Consolidated Balance Sheets

Consolidated Cash Flows

		Unit: billion yen	
		FY 2023 (Apr.-Sep.2023)	FY 2022 (Apr.-Sep.2022)
1	Cash flows from operating activities	165.3	-57.7
2	Cash flows from investing activities	-18.7	-41.2
3	Free cash flow (1+2)	146.6	-98.9
4	Cash flows from financing activities	-124.6	110.1
5	Cash and cash equivalents at end of the period	88.1	67.9

Consolidated Balance Sheets

		Unit: billion yen		
		FY2023 (As of Sep.30, '23)	FY2022 (As of Mar. 31, '23)	Changes
1	Total Assets	2,180.0	2,120.8	59.2
2	Net assets	687.7	663.4	24.3
3	Net worth	563.4	527.9	35.5
4	Net worth ratio	25.8%	24.9%	0.9%
5	Net interest-bearing debt ^{*1}	467.3	581.9	-114.6
6	Net Debt Equity Ratio (times)	0.83	1.10	-0.27

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

[FY2023 2Q Results] Overview of Consolidated Capital Expenditures

Capital Expenditures & Depreciations, etc.

		Unit: billion yen	
		2Q FY2023 Results	Changes
1	Capital expenditures	31.6	1.8
2	Depreciation expense amount, etc	27.1	-1.8

Capital Expenditures by Segment

		Unit: billion yen		
		2Q FY2023 Results	2Q FY2022 Results	Changes
1	Petroleum	15.1	8.1	7.0
2	Petrochemical	3.8	6.8	-3.0
3	Oil E&P	8.7	5.8	2.9
4	Renewable energy	3.9	8.5	-4.6
5	Other, adjustment	0.1	0.6	-0.5
6	Total	31.6	29.8	1.8
7	Investment securities, etc*	16.3	0.7	15.6

* 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).

Forecast for FY2023 Performance (Revision of Forecast for FY2023)

[FY2023 Forecast] Outlook (Changes from the Previous Announcement), Assumptions and Sensitivities

- Consolidated ordinary profit is expected to be ¥155.0 billion (up ¥30.0 billion from the previous announcement), consolidated ordinary profit excluding the impact of inventory valuation to be ¥132.0 billion (up ¥7.0 billion from the previous announcement), and net income to be ¥78.0 billion (up ¥23.0 billion from the previous from the previous announcement)
- We revise FY2023 forecasts upward as the consolidated ordinary profit and net income are all expected to exceed the previously announced figures, and earnings forecasts are revised upward.

Unit : billion yen

		FY2023 Forecast		FY2023 Previous Announcement (May 2023)		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	125.0	125.0	30.0	7.0
2	Petroleum business	87.0	64.0	56.0	56.0	31.0	8.0
3	Petrochemical business	-7.0		2.0		-9.0	
4	Oil E&P business *1	64.0		55.0		9.0	
5	Renewable energy business	2.0		2.0		0.0	
6	Other *2	9.0		10.0		-1.0	
7	Impact of inventory valuation	23.0		0.0		23.0	
8	Profit attributable to owners of parent	78.0		55.0		23.0	
9	Profit attributable to owners of parent excluding the impact of inventory valuation *3	62.0		55.0		7.0	

*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	FY2023 Previous Announcement (August 2023)	Changes	
10	Dividend per Share (Plan) (yen)	¥300	¥250	¥50

		FY2023 Forecast	FY2023 Previous Announcement (May 2023)	Changes
■ Precondition				
11	Dubai crude oil price (USD/B) (Apr.-Mar.)	84	85	-1
12	JPY/USD exchange rate (Apr.-Mar.) *	143	130	13
13	Dubai crude oil price (USD/B) (Jan.-Dec.)	82	83	-1
14	JPY/USD exchange rate (Jan.-Dec.)	140	131	9
15	Dubai crude oil price (USD/B) (Oct. 2023- Mar. 2024)	85	85	0
16	JPY/USD exchange rate (Oct. 2023- Mar. 2024)	145	130	15

(*) 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.

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

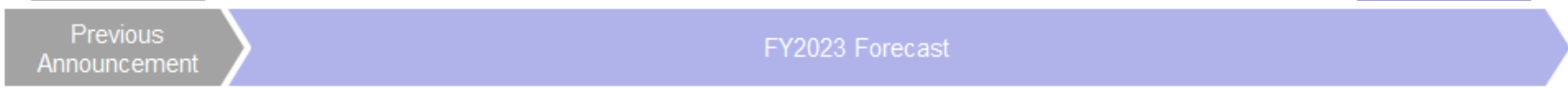
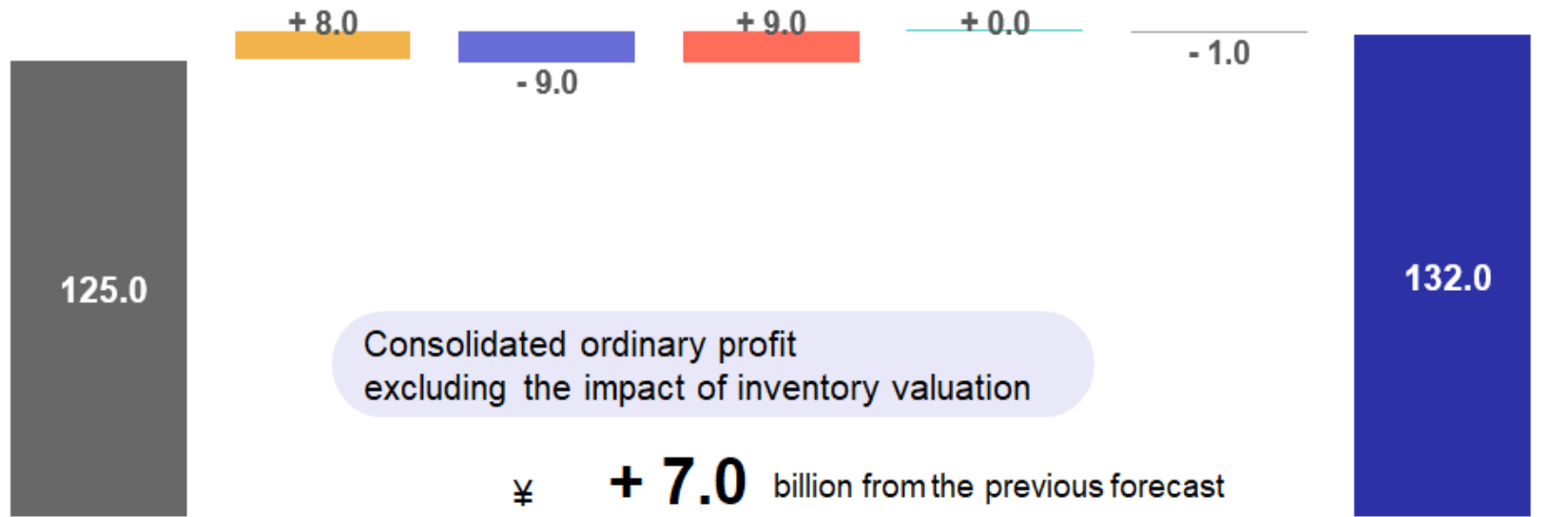
* Figures above refer to impacts by crude oil price (US\$1/bbl) and yen-dollar exchange rate (¥1/USD). Sensitivity is calculated based on the assumption that crude oil prices and foreign exchange rates remain constant throughout the period. E&P business are estimated for 12 months for crude oil prices and foreign exchange.

[FY2023 Forecast]

Consolidated Ordinary Profit (Excluding the impact of inventory valuation)
- Changes from the Previous Announcement

Unit : billion yen

Margins & Sales volume	+ 30.4	Price	- 4.9	Price	+ 5.6
Expense, other	- 3.7	Volume	- 8.4	Volume	+ 1.5
Refinery trouble	- 18.7	Expense, other	+ 4.3	Expense, other	+ 1.9



Previous Announcement	FY2023 Forecast					
Ordinary profit excl. the impact of inventory valuation	Petroleum business	Petrochemical business	Oil E&P business	Renewable energy business	Other	Ordinary profit excl. the impact of inventory valuation
125.0	56.0	2.0	55.0	2.0	10.0	132.0
	64.0	▲ 7.0	64.0	2.0	9.0	

[FY2023 Forecast]

Outlook for Consolidated Cash Flows and Financial Index

Consolidated cash flows

		Unit: billion yen	
		FY 2023 Forecast (Apr.-Mar.2024)	FY 2022 (Apr.-Mar.2023)
1	Cash flows from operating activities	173.3	8.1
2	Cash flows from investing activities	-98.3	-81.2
3	Free cash flow (1+2)	75.0	-73.1

Financial Index

		Unit: billion yen		
		FY 2023 Forecast (As of Mar.31, '24)	FY 2022 (As of Mar.31, '23)	Changes
1	Net worth	586.0	527.9	58.1
2	Net worth ratio	27.4%	24.9%	2.5%
3	Net Debt to Equity Ratio (times)	0.93	1.10	-0.17

[FY2023 Forecast]

Outline of Consolidated Capital Expenditures from the Previous Announcement

Capital Expenditures & Depreciations, etc.

		Unit: billion yen	
		FY2023 Forecast	Changes
1	Capital expenditures	102.6	-2.6
2	Depreciation expense amount, etc	55.4	-1.5

Capital Expenditures by Segment

		Unit: billion yen		
		FY2023 Forecast	Previous Announcement (May 2023)	Changes
1	Petroleum	53.7	41.0	12.7
2	Petrochemical	5.7	6.3	-0.6
3	Oil E&P	23.0	28.1	-5.1
4	Renewable energy	17.2	22.9	-5.7
5	Other, adjustment	3.0	6.9	-3.9
6	Total	102.6	105.2	-2.6
7	Investment securities, etc*	21.0	21.2	-0.2

* 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

[2Q 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
- 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] (Revision of Forecasts)

- Highlights of Consolidated Business Outlook (Changes from FY2022),
Precondition and Business Sensitivities
- Consolidated Ordinary Profit (excluding the impact of inventory valuation)
Changes from FY2022
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- 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 2Q FY2023 Results

[FY2023 2Q Results] Sales volume, CDU operating ratios

Unit: thousand KL

		2Q FY2023 Results	2Q FY2022 Results	Changes	FY2023 Forecast	FY2023 forecast changes from FY2022	
1	Selling volume in Japan	Gasoline	3,682	3,607	102.1%	7,236	100.4%
2		Kerosene	485	515	94.2%	2,032	97.8%
3		Diesel fuel	2,795	2,816	99.2%	5,664	99.3%
4		Heavy fuel oil A	743	741	100.2%	1,615	97.2%
5		Four-Total	7,704	7,679	100.3%	16,547	99.4%
6		Naphtha	2,314	2,625	88.2%	5,253	100.9%
7		Jet fuel	191	292	65.5%	464	91.3%
8		Heavy fuel oil C	384	374	102.7%	750	97.3%
9		Sub-Total	10,594	10,971	96.6%	23,015	99.5%
10	Export volume	Middle distillates Export	-	338	0.0%	250	52.0%
11		Bonded products and other	1,570	1,373	114.4%	2,844	107.6%
12		incl. Jet fuel	1,018	721	141.1%	1,826	117.2%
13		incl. Low-sulfur C fuel oil	224	500	44.9%	504	60.1%
14		Sub-Total	1,570	1,711	91.8%	3,094	99.0%
15	Total	12,164	12,681	95.9%	26,109	99.4%	

		2Q FY2023 Results	2Q FY2022 Results	Changes	
16	CDU operating ratio	(Calendar Day basis) ^{*1}	85.9%	95.7%	-9.8%
17		(Streaming Day basis) ^{*1,2}	92.7%	97.7%	-5.0%

*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 2Q Results]

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

1 Crude oil production volume

	2Q FY2023 Results	2Q FY2022 Results	Changes	
Cosmo Energy Exploration & Production Co., Ltd. (B/D)	35,418	43,080	-7,662	82.2%

* 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 Dec 31, 2022)

	mmbbls
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) 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 2Q Results] Results by Segment - Changes from 2Q FY2022

FY2023 2Q Results - Changes from 2Q FY2022

Unit: billion yen

		Net sales		Operating profit		Ordinary profit		Ordinary profit (excluding the impact of inventory valuation)	
		Results	Changes from 2Q FY2022	Results	Changes from 2Q FY2022	Results	Changes from 2Q FY2022	Results	Changes from 2Q FY2022
1	Petroleum business	1,174.3	-32.8	45.3	-81.4	48.7	-74.0	43.5	12.6
2	Petrochemical business	170.0	-68.1	-2.2	-10.3	-3.4	-11.2	-3.4	-11.2
3	Oil E&P business	56.5	-4.0	28.3	-7.0	33.0	-8.1	33.0	-8.1
4	Renewable energy business	5.7	1.0	-0.1	0.3	0.1	0.2	0.1	0.2
5	Other, adjustment	-98.0	40.8	4.6	1.4	4.7	2.4	4.7	2.4
6	Total	1,308.5	-63.1	75.9	-97.0	83.1	-90.7	77.9	-4.1

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 2Q Results] Major data of each business

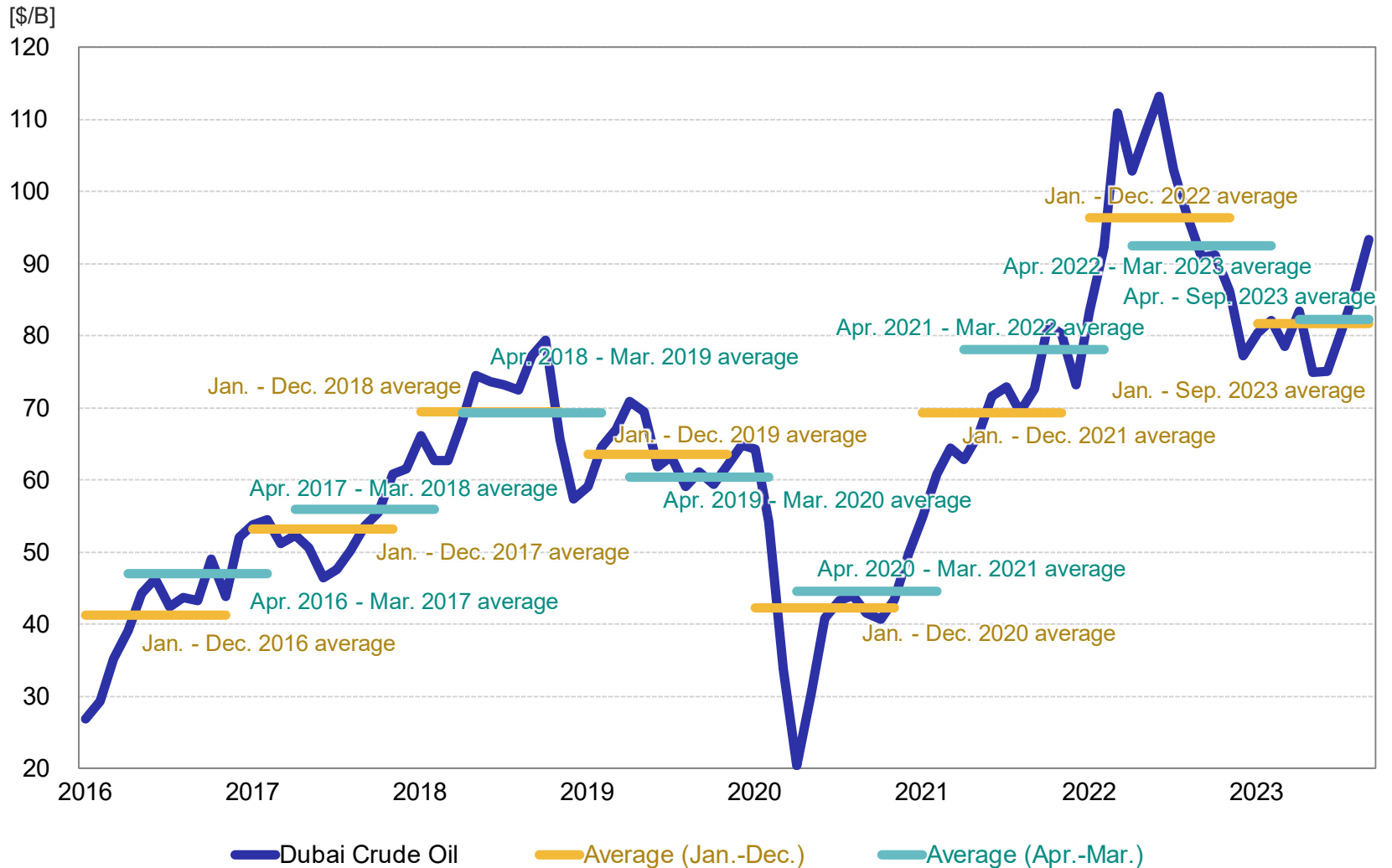
1	Petroleum business	(1) Refinery Operating Ratio						
			FY2018	FY2019	FY2020	FY2021	FY2022	2Q FY2023
		CDU operating ratio (Calendar Day basis) ^{*1}	86.1%	87.9%	84.3%	95.4%	97.8%	85.9%
		(2) Number of SSs by Operator Type						
			FY2018	FY2019	FY2020	FY2021	FY2022	2Q FY2023
		Subsidiary ^{*2}	888	876	877	872	880	877
		Dealers	1,903	1,879	1,852	1,823	1,769	1,749
		Total ^{*3}	2,791	2,755	2,729	2,695	2,649	2,626
		Number of Self-Service SSs ^{*3}	1,048	1,072	1,099	1,112	1,121	1,125
		(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	2Q FY2023		
Cosmo The Card (million cards) ^{*3}	4.33	4.21	4.12	4.03	3.84	3.72		
My car lease (Units) ^{*3}	60,579	73,634	85,126	96,214	108,104	113,336		
Carlife Square (million downloads) ^{*3}		2.02	3.44	4.72	5.95	6.58		
2	Oil E&P business	Crude oil production volume						
			FY2018	FY2019	FY2020	FY2021	FY2022	2Q FY2023
		Cosmo Energy E&P Co., Ltd. (B/D) ^{*4}	52,303	50,773	49,208	45,157	42,430	35,418
3	Renewable energy business	Wind power plant capacity(ten thousand kW)						
			FY2018	FY2019	FY2020	FY2021	FY2022	2Q FY2023
		Plant Capacity (MW) ^{*3}	227	266	261	300	247	312
		Electricity sales volume (million kWh)	468	550	532	595	553	256

^{*1} April-March results for each fiscal year, ^{*2} Directly operated SS and our wholly owned subsidiaries' dealer SS,

^{*3} At the end of March of each fiscal year, ^{*4} January-December results for each fiscal year

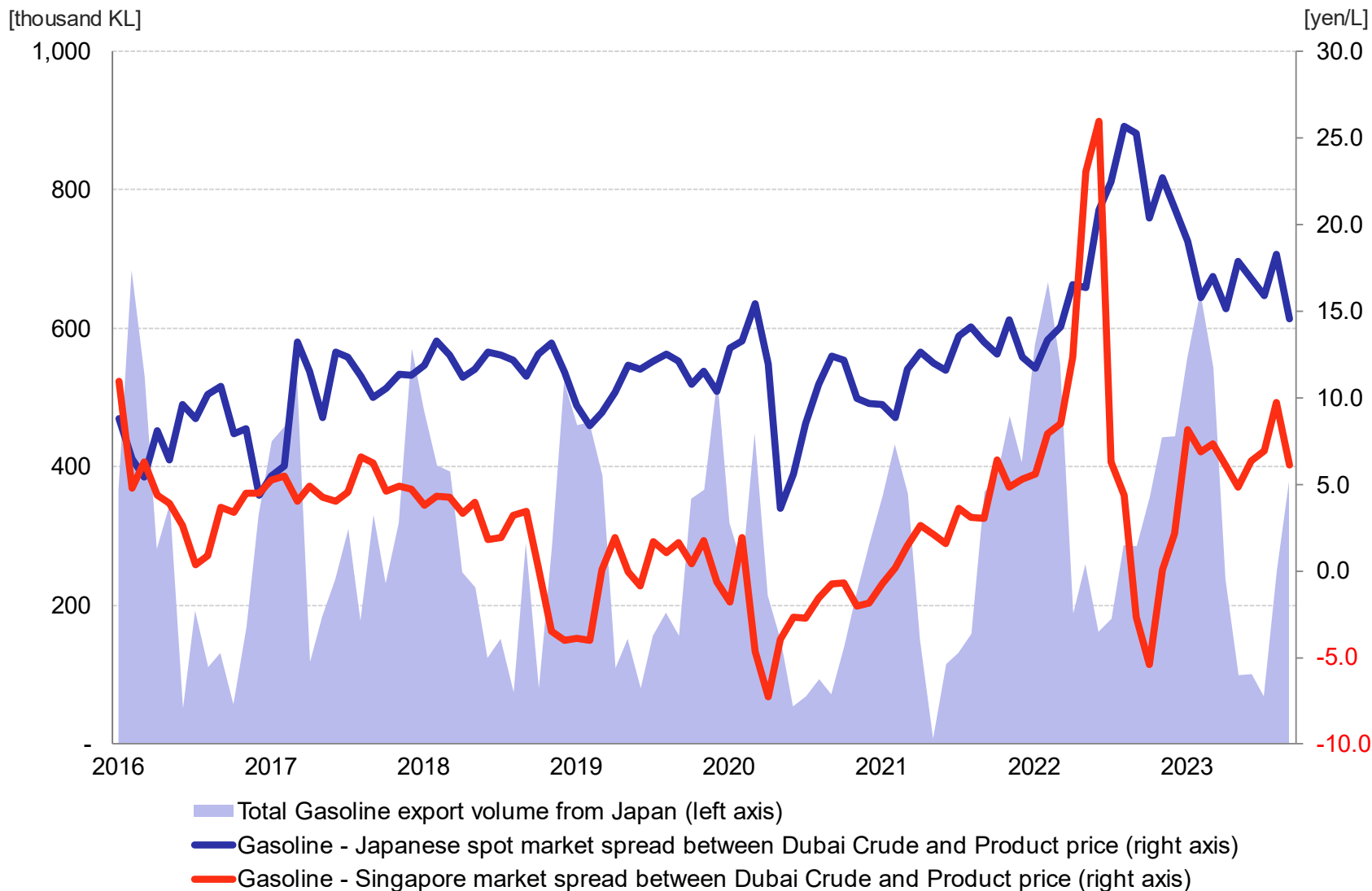
^{*5} From FY2018 to FY2022 :Total production volume of Abu Dhabi Oil Co., Ltd., Qatar Petroleum Development Co., Ltd.and United Petroleum Development Co., Ltd.
From FY2023:Total production volume of Abu Dhabi Oil Co., Ltd., and United Petroleum Development Co., Ltd.

Historical changes in Dubai crude oil price

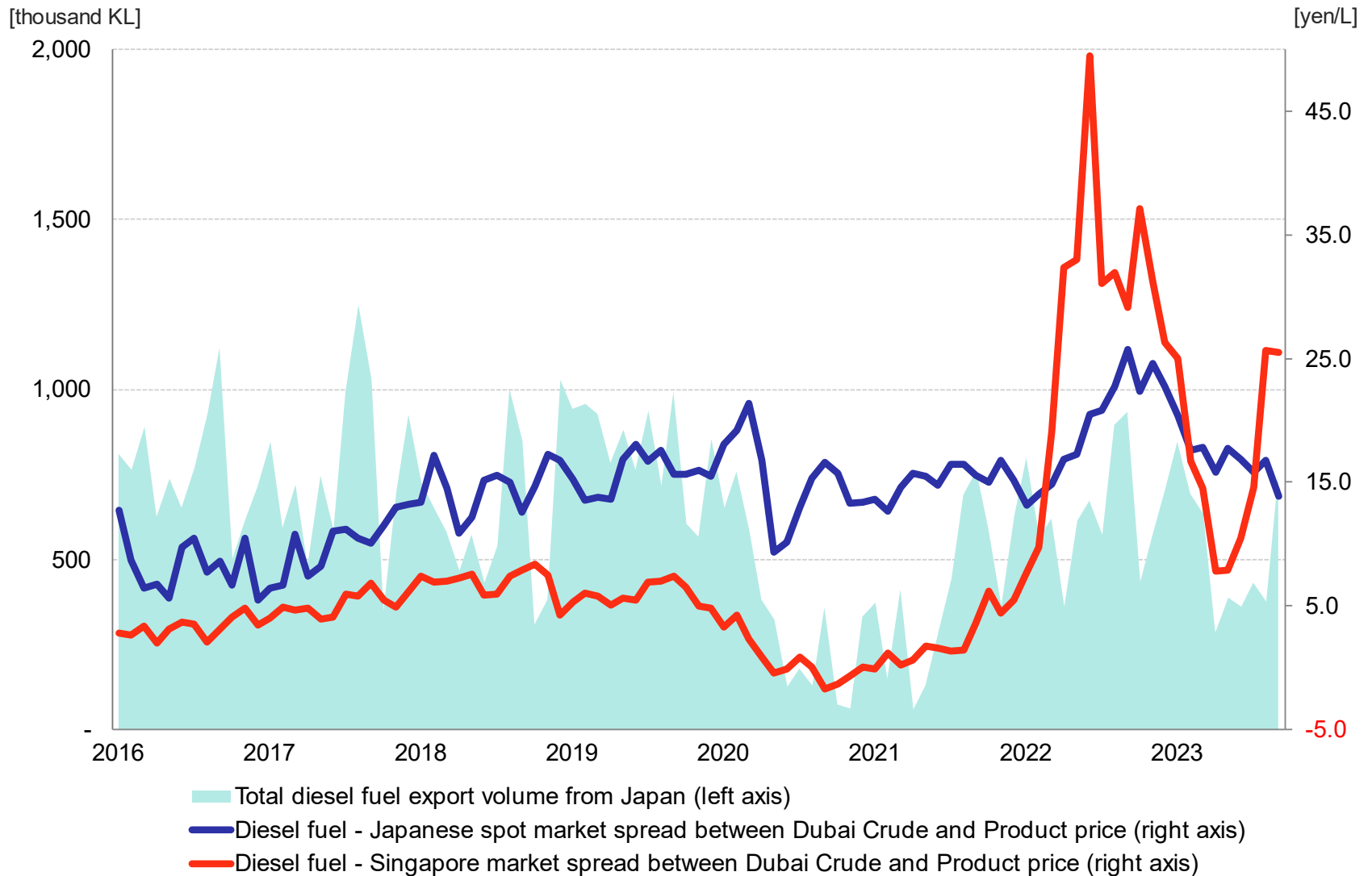


*Trend of crude oil price from January 2016 to September 2023

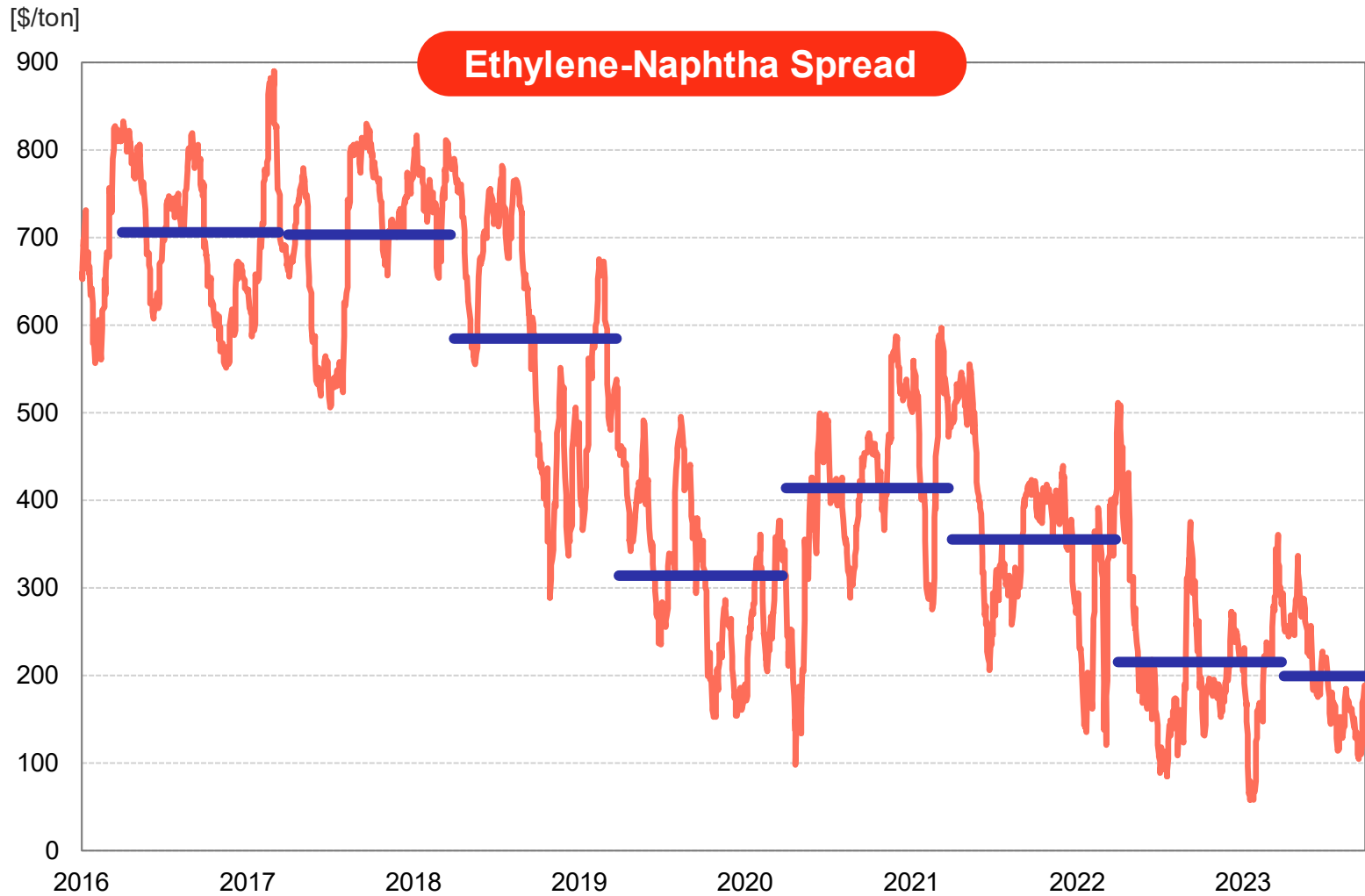
Historical changes of gasoline export and margin (Domestic and Overseas)



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

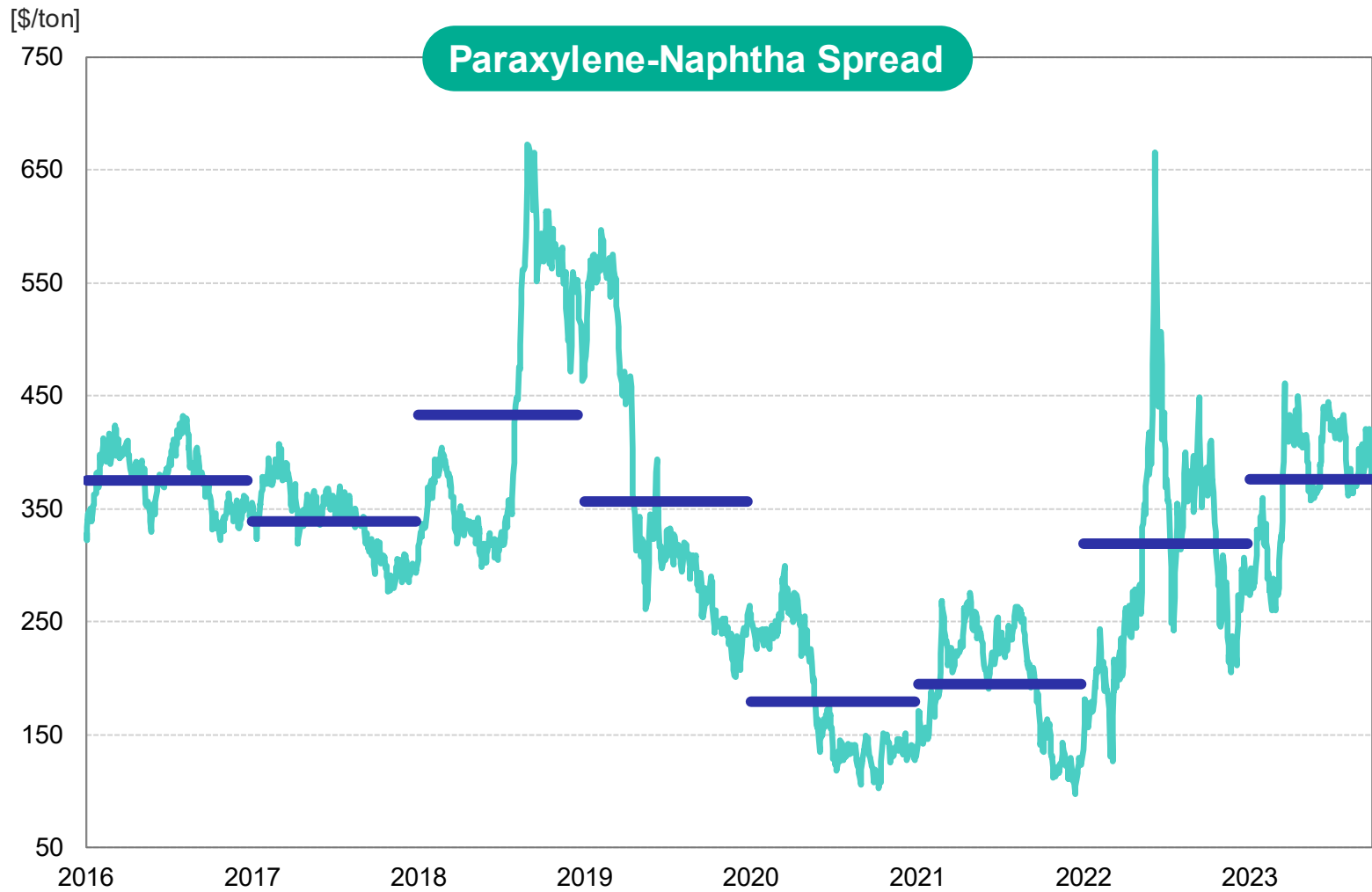


Market conditions for Ethylene



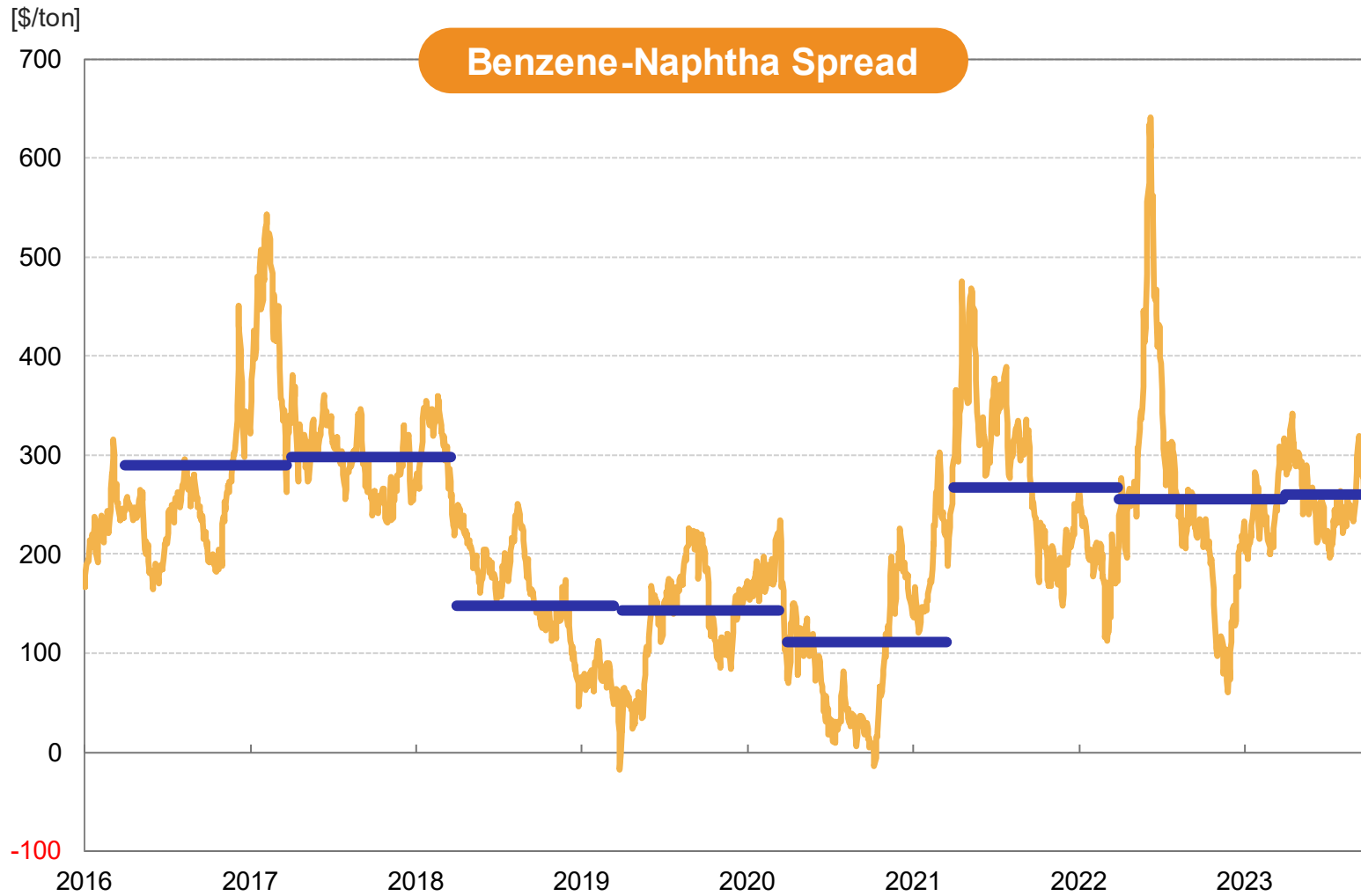
*Horizontal line indicates the average of each calendar year (Apr.-Mar.).

Market conditions for Paraxylene



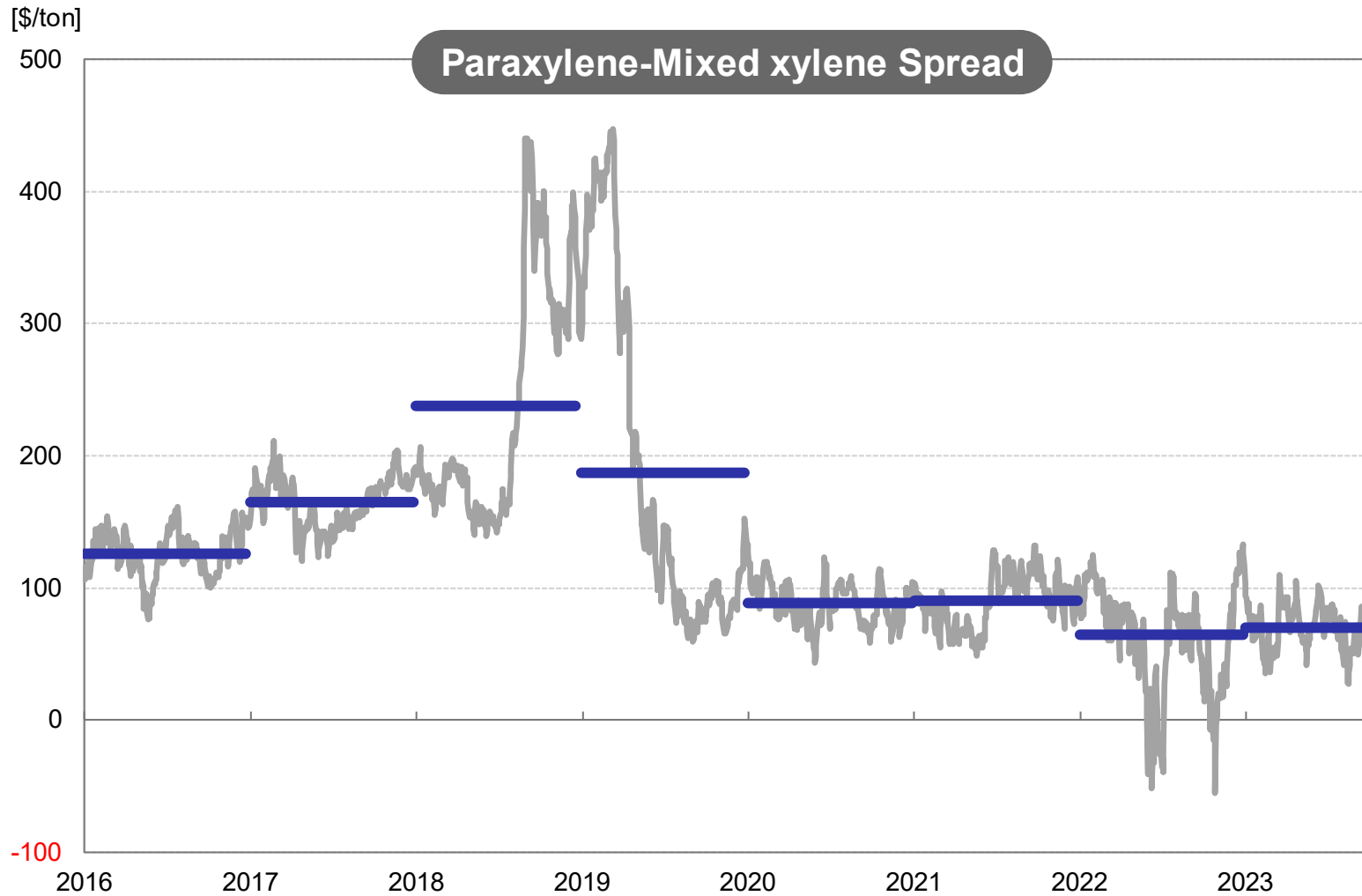
*Horizontal line indicates the average of each calendar year (Jan.-Dec.).

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 (Revision of Forecast)

[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 ^{*1}	64.0		84.5		-20.5	
5	Renewable energy business	2.0		2.6		-0.6	
6	Other ^{*2}	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 ^{*3}	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

(*) 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.

■ 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	—	—	

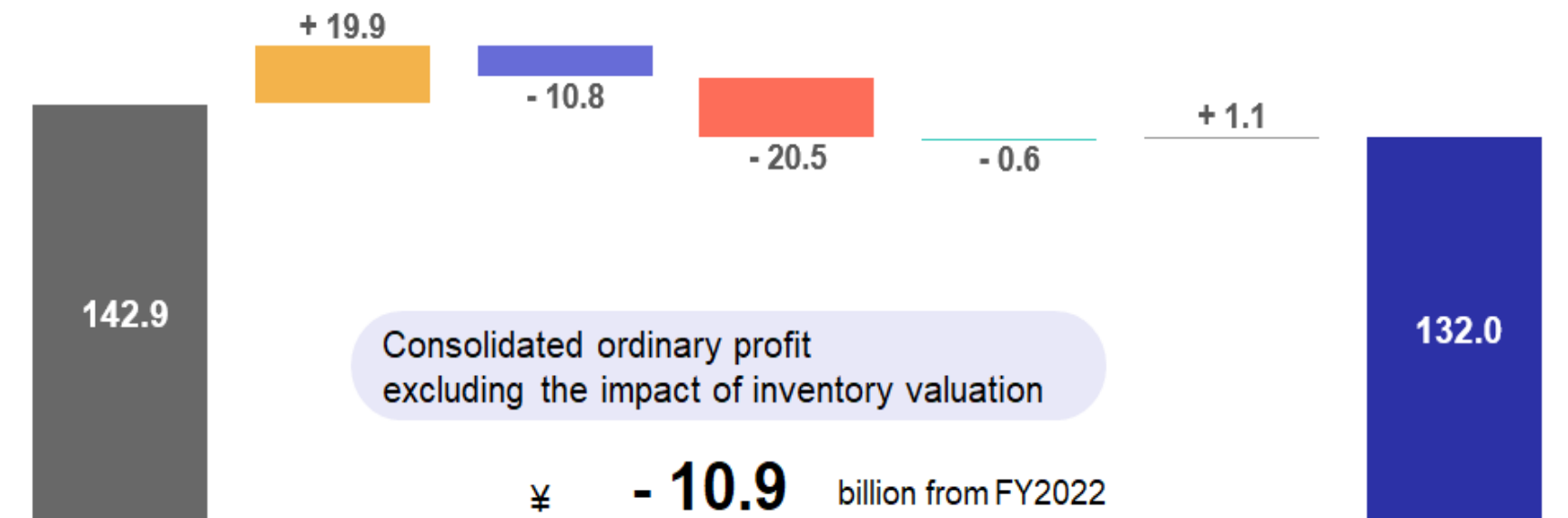
* Figures above refer to impacts by crude oil price (US\$1/bbl) and yen-dollar exchange rate (¥1/USD)

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] Consolidated Ordinary Profit (excluding inventory impact of inventory valuation) – Changes from FY2022

Unit : billion yen

Margins & Sales volume	+ 28.3	Price	- 7.1	Price	- 12.2
Expense, other	- 3.2	Volume	- 1.4	Volume	+ 2.0
Refinery trouble	- 5.2	Expense, other	- 2.3	Expense, other	- 10.3



FY2022 Results	FY2023 Forecast					
Ordinary profit excl. the impact of inventory valuation	Petroleum business	Petrochemical business	Oil E&P business	Renewable energy business	Other	Ordinary profit excl. the impact of inventory valuation
142.9	44.1	3.8	84.5	2.6	7.9	
	64.0	- 7.0	64.0	2.0	9.0	132.0

[FY2023 Forecast]

Outline of Consolidated Capital Expenditures – Changes from FY2022

Capital Expenditures & Depreciations, etc.

		Unit: billion yen	
		FY2023 Forecast	Changes
1	Capital expenditures	102.6	30.7
2	Depreciation expense amount, etc	55.4	-2.8

Capital Expenditures by Segment

		Unit: billion yen		
		FY2023 Forecast	FY2022 Results	Changes
1	Petroleum	53.7	19.8	33.9
2	Petrochemical	5.7	9.6	-3.9
3	Oil E&P	23.0	22.4	0.6
4	Renewable energy	17.2	19.4	-2.2
5	Other, adjustment	3.0	0.7	2.3
6	Total	102.6	71.9	30.7
7	Investment securities, etc*	21.0	9.1	11.9

*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).

[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 ²
Net sales¹	¥2,257.0 billion	¥336.0 billion	¥125.0 billion	¥15.0 billion	¥-183.0 billion	¥2,550.0 billion
Ordinary profit¹	¥87.0 billion	¥-7.0 billion	¥64.0 billion	¥2.0 billion	¥9.0 billion	¥155.0 billion
Ordinary profit excluding ¹ impact of inventory valuation	¥64.0 billion	¥-7.0 billion	¥64.0 billion	¥2.0 billion	¥9.0 billion	¥132.0 billion
Major assets	<ul style="list-style-type: none"> 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 style="list-style-type: none"> Olefinic production capacity ^{*5} Ethylene 1.29 mil tons/year Aromatic production capacity ^{*5} Para-xylene 1.360 mil tons/year Benzene 0.735 mil tons/year Mixed-xylene 0.618 mil tons/year 	<ul style="list-style-type: none"> 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 ^{*3} Approx. 42 thousand B/D (Comparison with refining capacity: Approx. 11%) Crude Oil Reserves (Proved and Probable) ^{*4} 133.0 million barrels (Equivalent to approx. 17 years of supply) 	<ul style="list-style-type: none"> Wind power plant capacity ^{*4} 302 MW (No. 3 in Japan and a 6% domestic share) Solar power generation ^{*5} capacity 24 MW 	<ul style="list-style-type: none"> Corporate brand awareness 96%  <p>* Survey of 2,000 person aged 16-69 nationwide by an outside research firm (as of August 2022)</p>	
Major business companies related companies	<ul style="list-style-type: none"> Cosmo Oil Cosmo Oil Lubricants Gyxis (LPG) Cosmo Oil Marketing Cosmo Oil Sales Cosmo Energy Solutions 	<ul style="list-style-type: none"> Maruzen Petrochemical (Chiba/Yokkaichi) Cosmo Matsuyama Oil CM Aromatics (Chiba) HD Hyundai Cosmo Petrochemical (Korea) 	<ul style="list-style-type: none"> Cosmo Energy Exploration & Production Abu Dhabi Oil (UAE) Qatar Petroleum Development (Qatar) United Petroleum Development (UAE/Qatar) Cosmo E&P Albahriya (UAE) 	<ul style="list-style-type: none"> Cosmo Eco Power (Wind power generation) CSD solar (Solar power generation) 	<ul style="list-style-type: none"> Cosmo Engineering Cosmo Trade and Service 	

*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

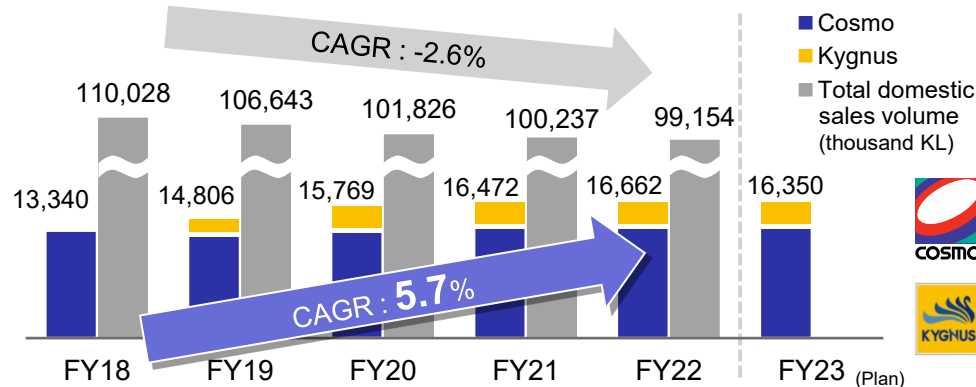
Strengthen competitiveness through secondary equipment investment

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

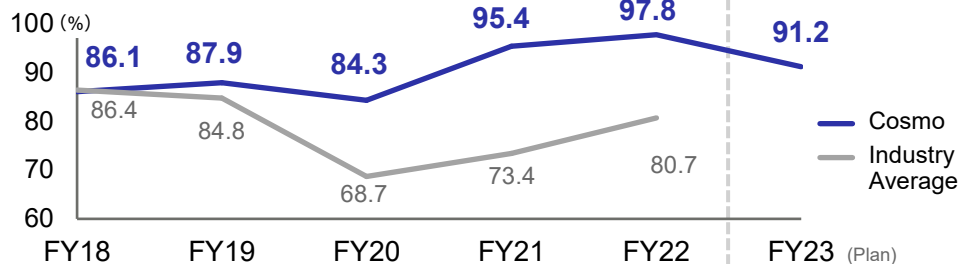
Coker capacity increased for IMO regulation (October 2019)

29,000 → **31,000 B/D**

Trends in petroleum product demand and Cosmo sales volume



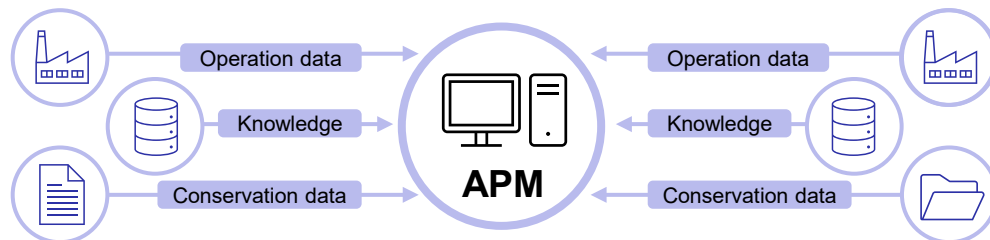
Maintain high utilization of refinery



[Petroleum Business] Efforts to Achieve High utilization rate and Efficient Operations at the refineries

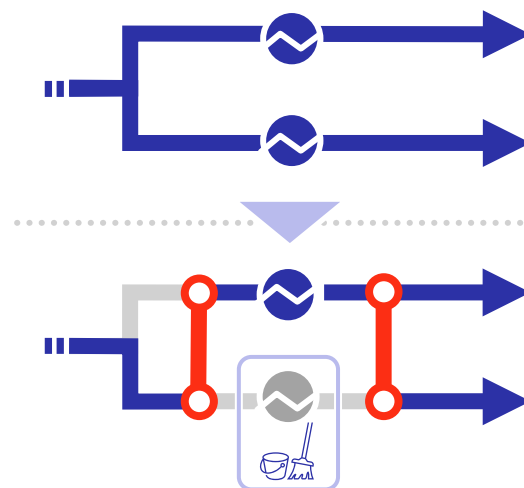
- The source of cash generation is high utilization rate of the refineries. Profitability has grown dramatically as a result of high refinery utilization in the 6th Medium-term Management Plan.
- Started to (i.) reduce unplanned outages (troubles) and (ii.) shorten planned outages (scheduled turnaround) 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



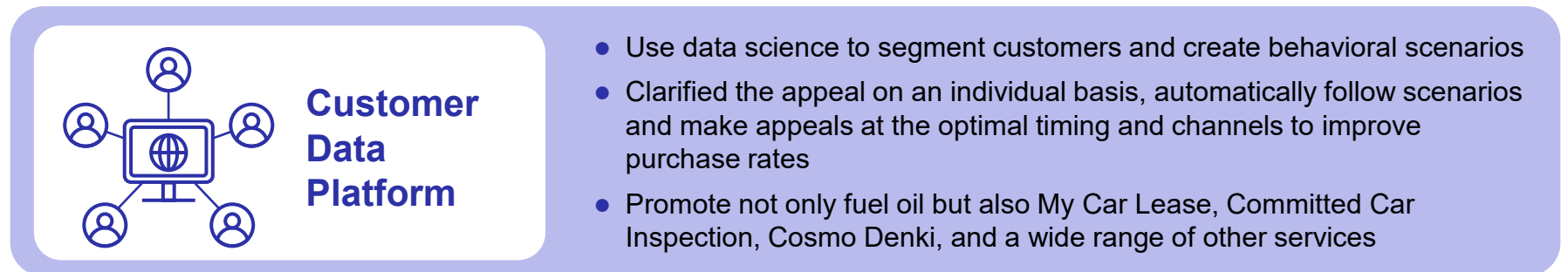
Investment in crude oil heat exchangers is planned, with the aim of reducing the days of scheduled turnaround. The conventional method of cleaning the heat exchanger required the equipment to be shut down, but by adding valves and bypass lines, cleaning can be performed while running.

[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



[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

China

World's largest demand area for paraxylene

Mixed-xylene

CM Aromatics

- Produces mixed xylene

Cosmo Matsuyama Oil

- Manufacture of benzene, toluene, xylene, etc.

Yokkaichi Refinery

Maruzen Petrochemical (Yokkaichi Plant)

Production capacity

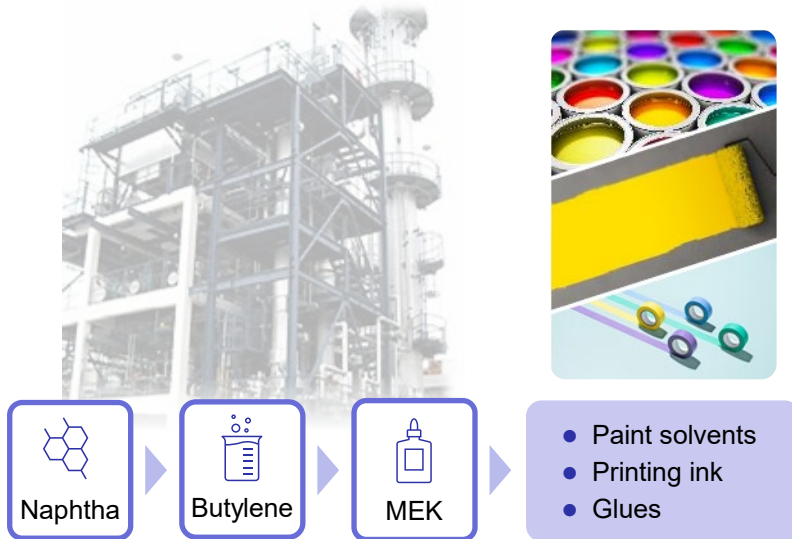
		Company	Production capacity
Olefin-based	Ethylene	Maruzen Petrochemical	*1.290 mil t/year
	Para-xylene	HD Hyundai Cosmo Petrochemical	1.360 mil t/year
Aroma-based	Benzene	Maruzen Petrochemical	0.395 mil t/year
		HD Hyundai Cosmo Petrochemical	0.250 mil t/year
		Cosmo Matsuyama Oil	0.090 mil t/year
	Total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

* 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)

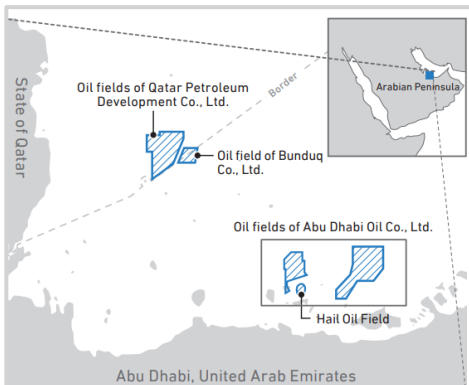
[Oil E&P Business] Overview

- 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

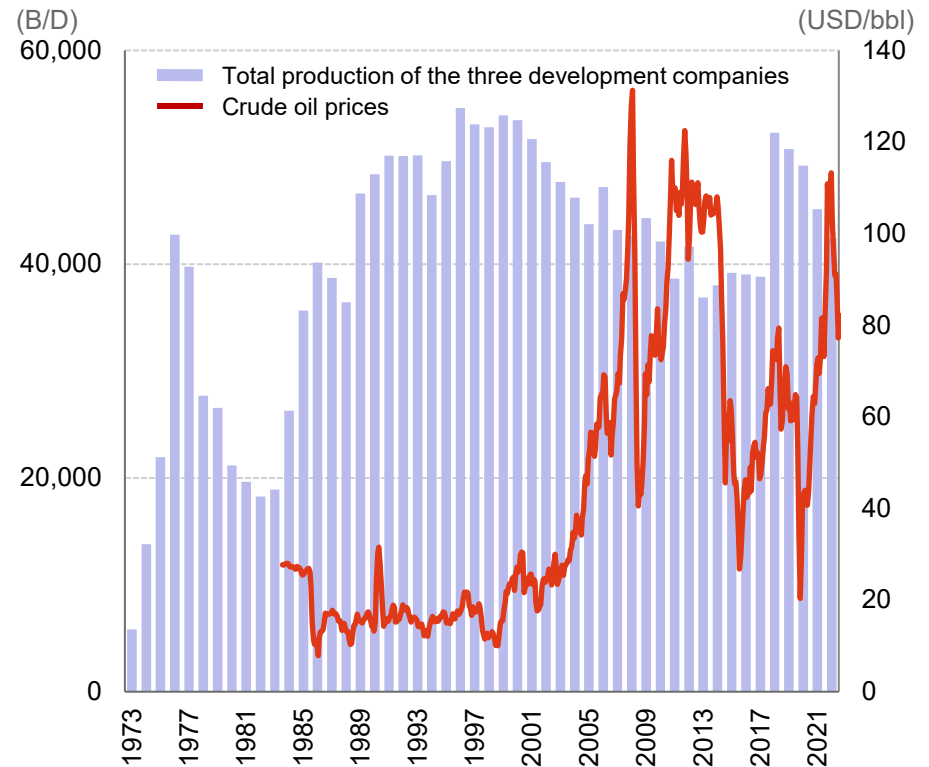
Cosmo Energy Group Oil E&P Division

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

Blocks of the Cosmo Energy Group



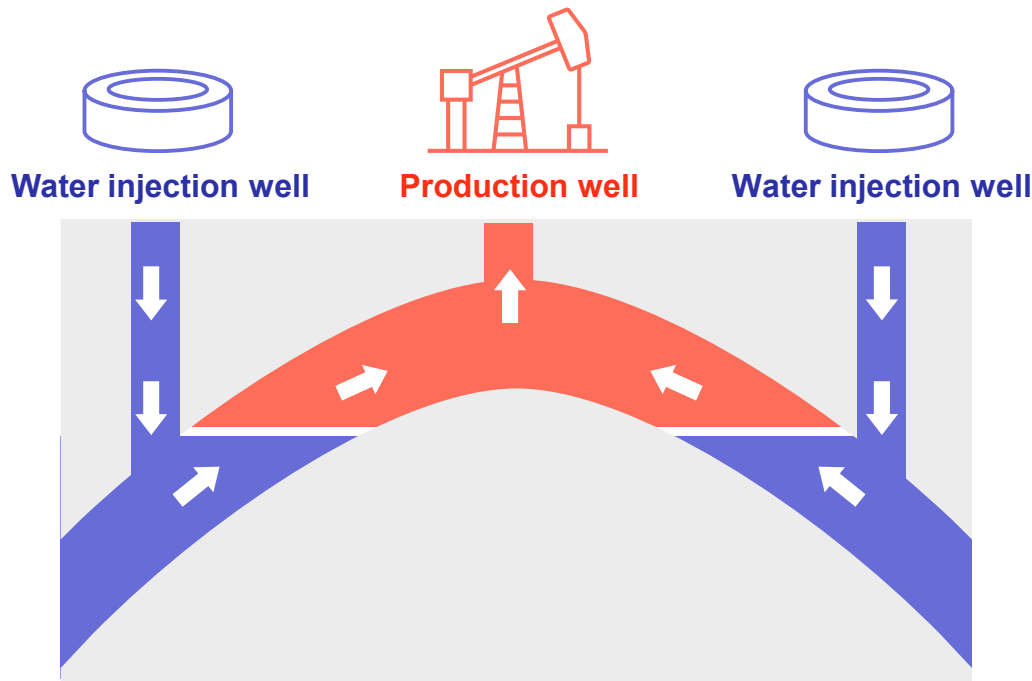
Cosmo Energy Group Crude Oil Production



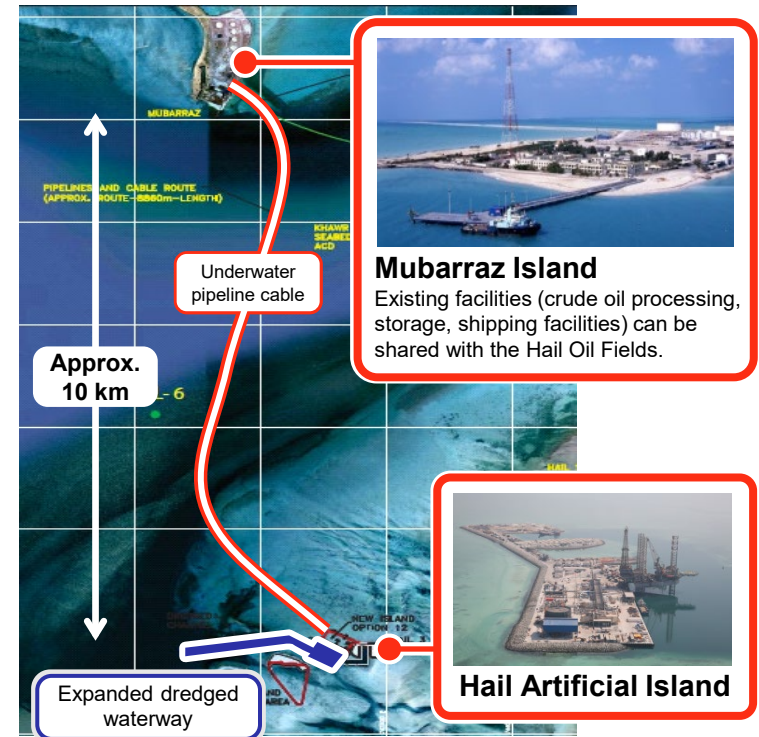
[Oil E&P Business] Secondary recovery investment in the Hail Oil Field

- 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



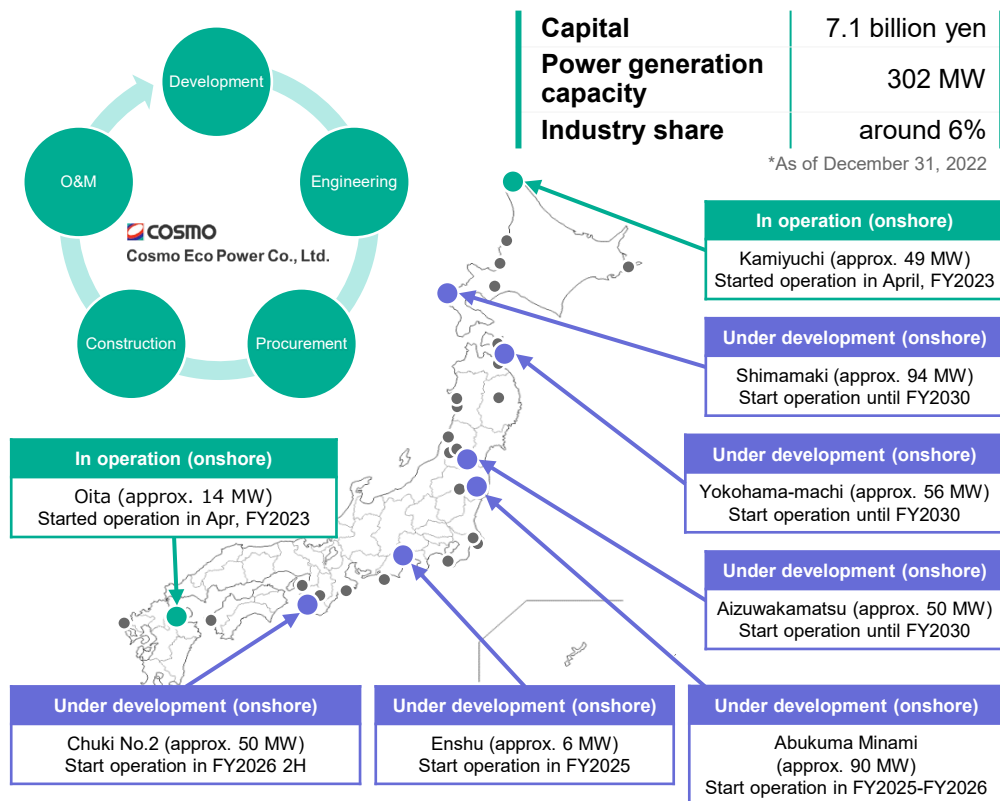
The Hail Oil Field and existing shipping terminal (Mubarraz Island)



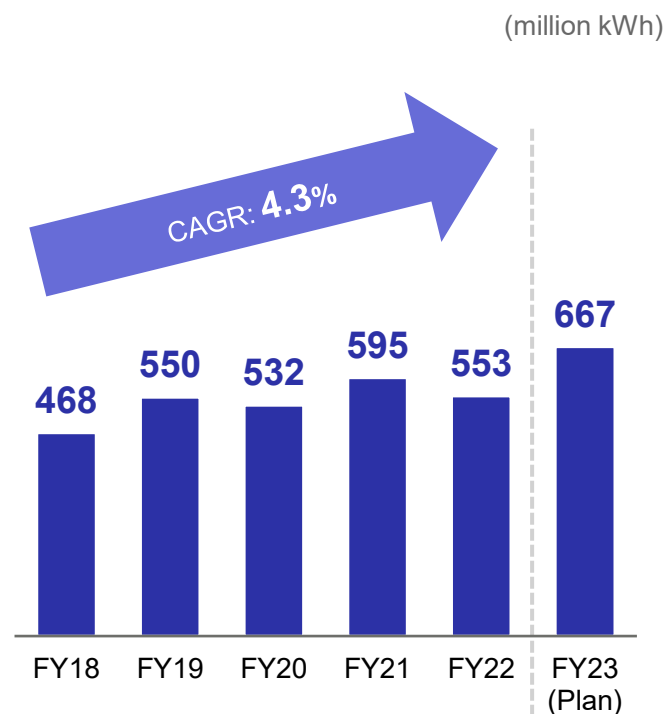
[Renewable Energy Business] Overview

- 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

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.