

# Cosmo Energy Holdings Co., Ltd. Presentation on Results for Second Quarter of Fiscal 2019

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November 7, 2019

2Q FY2019 Review / Policy for 2nd Half of FY2019

P.2-6

Results for 2Q FY2019

P.7-13

- ✓ Ordinary profit (Inventory effects excluded) was ¥ 36.0 billion (down ¥20.5 billion year on year). Because of a minus time-lag impacting from decline of crude oil price and the deterioration of petrochemical market conditions.
- ✓ Compared to the initial forecast, despite a negative time lag effect reflecting the decline in crude oil prices and the deterioration of the petrochemical market, the existing oil fields maintained production better than expected in the oil E&P business and fell below the initial forecast by ¥9.6 billion.

## Second Quarter of Fiscal 2019 year on year

Unit: billion yen

No.		FY2019 (Apr.-Sep.) (A)	FY2018 (Apr.-Sep.) (B)	Changes (A) - (B)
1	Petroleum business	4.9	12.6	-7.7
2	Petrochemical business	6.6	12.0	-5.4
3	Oil E&P business	19.6	28.5	-8.9
4	Other	4.9	3.4	1.5
5	Ordinary profit excluding the impact of inventory valuation	36.0	56.5	-20.5
6	Impact of inventory valuation	-6.8	22.2	-29.0
7	Ordinary profit	29.2	78.7	-49.5

## Second Quarter of Fiscal 2019 compared to the initial forecast

Unit: billion yen

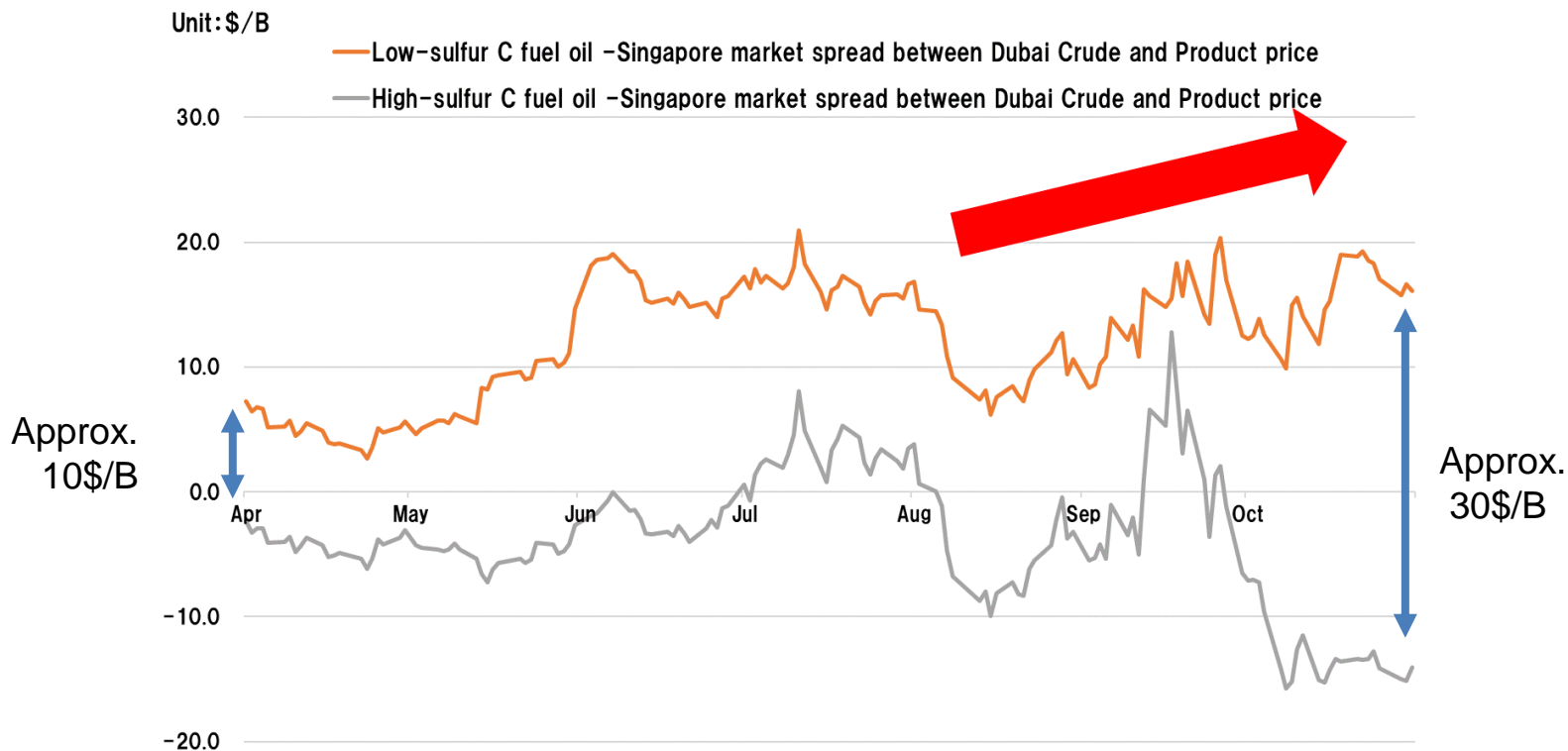
No.		FY2019 (Apr.-Sep.) (A)	Forecast FY2019 (Apr.-Sep.) (B)	Changes (A) - (B)
1	Petroleum business	4.9	14.7	-9.8
2	Petrochemical business	6.6	9.1	-2.5
3	Oil E&P business	19.6	16.0	3.6
4	Other	4.9	5.8	-0.9
5	Ordinary profit excluding the impact of inventory valuation	36.0	45.6	-9.6
6	Impact of inventory valuation	-6.8	5.0	-11.8
7	Ordinary profit	29.2	50.6	-21.4

Using Sakai Refinery's delayed coker, reinforce competitiveness of the petroleum business

## 【 Petroleum refining 】

- ✓ Delayed coker unit capacity enhancement at Sakai Refinery completed in October.
- ✓ Alongside increased operation of fuel oil Hydrodesulphurization Unit at Chiba Refinery, optimum sales of profitable products are to be made.
- ✓ For high sulfur C heavy oil production zero system.

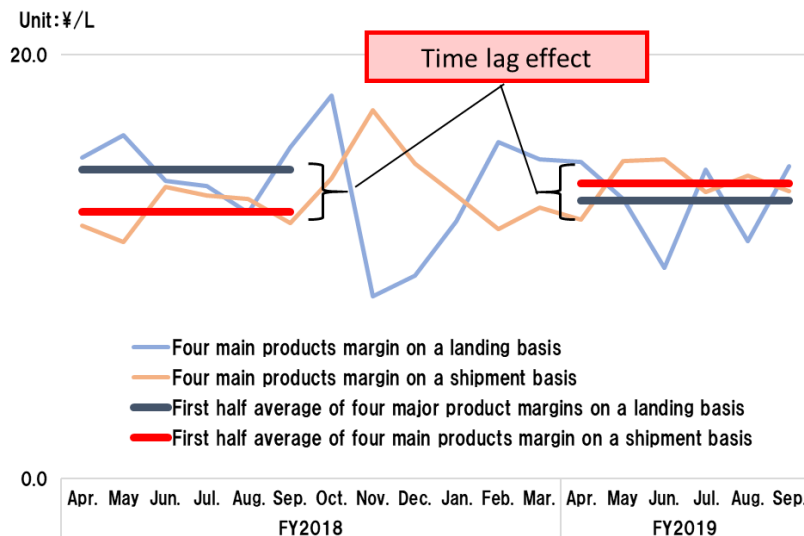
Low-sulfur C/ High-sulfur C fuel oil -Singapore market spread between Dubai Crude and Product price



## 【Petroleum sale】

- ✓ Despite a time lag effect reflecting the decline in crude oil prices, the actual business environment remains favorable.
- ✓ Steadily advance the supply of petroleum products to Kygnus Sekiyu K.K., which we began in July, and expand new sales channels of the Group.

### Time lag effect



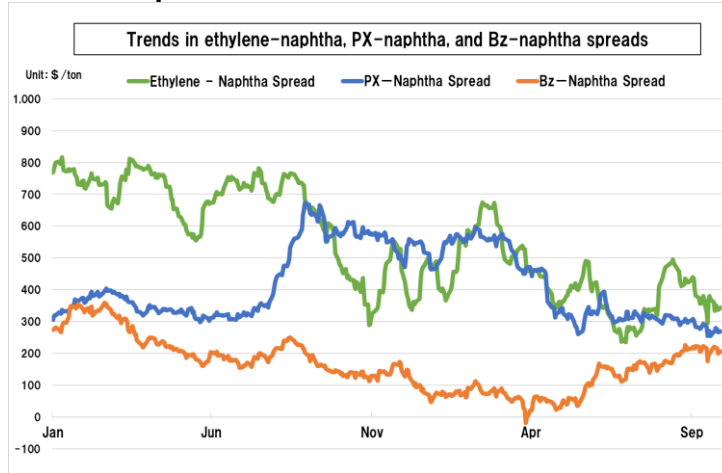
### Sales plan for the Second half of FY2019(Forecast)

Unit: thousand KL

No.		2nd Half of FY2019 (Forecast)	2nd Half of FY2018 (Results)	Changes
1	Selling volume in Japan	Gasoline	2,868	117.1%
2		Kerosene	1,357	116.4%
3		Diesel fuel	2,345	108.3%
4		Heavy fuel oil A	835	109.6%
5		Sub-Total	7,405	113.3%

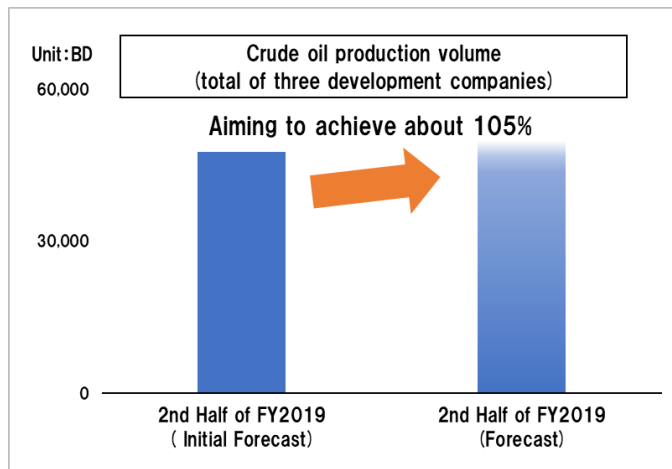
【 Petrochemical 】 ☁

✓ The petrochemical market is expected to deteriorate.



【 Oil E&P 】 ☀

✓ Despite reduced production volume at the Hail Old Field, maintain production better than the initial forecast at existing oil fields.



Crude oil prices and petrochemical market conditions fell below the initially announced forecast. However, in addition to an actual favorable petroleum business environment, from 2nd half, our measures will realize such as optimum sales of profitable products associated with the IMO regulations, expansion of new sales channels of the Group, including Kygnus, and an increase in production volume at the existing oil fields. Additionally the future trend of crude oil prices is uncertain, we do not revise the forecast at present.

Unit: billion yen

No.		Forecast※ FY2019
1	Petroleum business	37.0
2	Petrochemical business	18.0
3	Oil E&P business	40.0
4	Other	11.0
5	Ordinary profit excluding the impact of inventory valuation	106.0
6	Impact of inventory valuation	5.0
7	Ordinary profit	111.0
8	Profit attributable to owners of parent	60.0

※Announced on May 9,2019

# Results for Second Quarter of FY2019



- ✓ Ordinary profit (Inventory effects excluded) had declined, because of a minus time-lag impacting from decline of crude oil price and the deterioration of petrochemical market conditions.
- ✓ But the actual petroleum business environment has continued to improve.

### [Petroleum business]

- ✓ Although the actual business environment has continued to improve, a minus time-lag impacting from decline of crude oil price.(Last financial year had a plus time-lag)  
⇒ Ordinary profit excluding the impact of inventory was ¥ 4.9 billion. (down ¥7.7 billion year on year).

### [Petrochemical business]

- ✓ Although improvement effects are assisted by the elimination of the impact of regular maintenance in the previous fiscal year, petrochemical market conditions worsened.  
⇒ Ordinary profit was ¥ 6.6 billion (down ¥5.4 billion year on year).

### [Oil exploration and production business]

- ✓ Despite a recovery in the production volume of the existing oil fields, the volume decreased due to reduce production volume of the Hail Oil Field.  
⇒ Ordinary profit was ¥ 19.6 billion (down ¥ 8.9 billion year on year).

### [Key Points in Financial Results]

- ✓ Consolidated ordinary profit reached ¥ 29.2 billion(down ¥ 49.5 billion year on year).  
Consolidated ordinary profit excluding the impact of inventory valuation reached ¥ 36.0 billion (down ¥ 20.5 billion year on year).
- ✓ Profit attributable to owners of parent profit reached ¥ 14.9 billion(down ¥ 25.5 billion year on year).

Unit: billion yen

No.	Item	FY2019 (Apr.-Sep.2019)	FY2018 (Apr.-Sep.2018)	Changes	(Rate of change)	(Ref) Forecast FY2019
1	Net sales	1,321.5	1,333.5	-12.0	-1%	2,913.0
2	Operating profit	26.2	79.1	-52.9	-67%	109.0
3	Non-operating income/expenses, net	3.0	-0.5	3.5		2.0
4	Ordinary profit	29.2	78.7	-49.5	-63%	111.0
5	Extraordinary income/losses, net	8.6	-1.3	9.9		3.0
6	Income taxes	18.2	28.8	-10.6		43.0
7	Profit attributable to non- controlling interests	4.7	8.1	-3.4		11.0
8	Profit attributable to owners of parent	14.9	40.4	-25.5	-63%	60.0
9	Impact of inventory valuation	-6.8	22.2	-29.0		5.0
10	Ordinary profit excluding the impact of inventory valuation	36.0	56.5	-20.5		106.0
11	Dubai crude oil price (USD/B) (Apr.-Sep.)	64	73	-9		65
12	JPY/USD exchange rate (yen/USD)(Apr.-Sep.)	109	110	-1		110
【Reference】						
13	Dubai crude oil price (USD/B) (Jan.-Jun.)	65	68	-3		65
14	JPY/USD exchange rate (yen/USD)(Jan.-Jun.)	110	109	1		110

**[2Q FY2019 Results] Outline of Consolidated Ordinary Profit by business segment  
— Changes from 2QFY2018**

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Unit : billion yen

No	FY2019 (Apr. – Sep. 2019)		FY2018 (Apr. – Sep. 2018)		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		29.2	36.0	78.7	56.5	-49.5	-20.5
2	(Each segment)	Petroleum business	-1.9	4.9	34.8	12.6	-36.7	-7.7
3		Petrochemical business	6.6		12.0		-5.4	
4		Oil E&P business (*1)	19.6		28.5		-8.9	
5		Other (*2)	4.9		3.4		1.5	

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

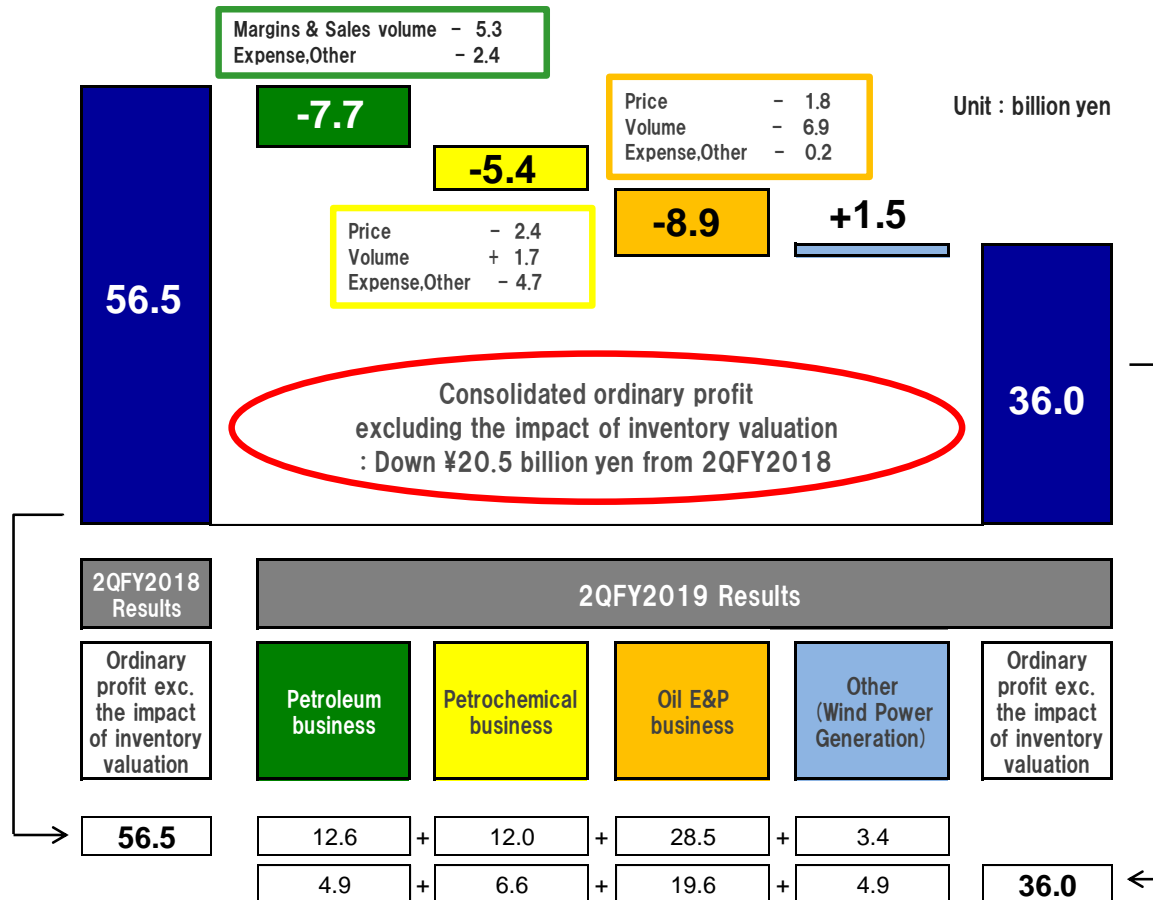
(\*2) Including consolidated adjustment

# [2Q FY2019 Results] Consolidated Ordinary Profit (Excluding the impact of inventory valuation)

## - Analysis of Changes from 2Q FY2018

Key variable factors

- Petroleum business** : Despite an improvement in the business environment and effects from the elimination of the impact of regular maintenance (Chiba) in the previous fiscal year, a negative time lag occurred, reflecting the decline in crude oil prices.
- Petrochemical business** : Despite improvement effects associated with an increase in sales volume due to the elimination of the impact of regular maintenance in the previous fiscal year, petrochemical market conditions deteriorated.
- Oil E&P business** : Despite a recovery in the production volume of the existing oil fields, the volume decreased due to reduce production volume of the Hail Oil Field.



## Consolidated Cash Flows

Unit: billion yen

No		FY 2019 (Apr.-Sep.2019)	FY 2018 (Apr.-Sep.2018)
1	Cash flows from operating activities	36.3	14.1
2	Cash flows from investing activities	-40.3	-42.0
3	Free cash flow (1+2)	-4.0	-27.9
4	Cash flows from financing activities	22.5	30.4
5	Cash and cash equivalents at end of the period	58.5	57.9

## Consolidated Balance Sheet

Unit: billion yen

No		FY2019 (As of Sep. 30, '19)	FY2018 (As of Mar. 31, '19)	Changes
1	Total Assets	1,688.8	1,702.3	-13.5
2	Net assets	407.5	401.9	5.6
3	Net worth	285.1	281.1	4.0
4	Net worth ratio	16.9%	16.5%	0.4%
5	Net interest-bearing debt *1	657.5	644.7	12.8
6	Net Debt Equity Ratio (times) (after partially accounting for Hybrid Loan) *2	1.99	1.98	Down 0.01points

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

\*2 Calculated on the basis that 50% of 60 billion yen Hybrid Loan made on 1st April 2015 is included into Equity

## Capital Expenditures, Depreciation, etc.

Unit: billion yen

No.		2QFY2019 Results	Change from 2QFY2018
1	Capital expenditures	31.2	-5.7
2	Depreciation expense amount, etc.	30.0	4.8

## Capital Expenditures by Business Segment

Unit: billion yen

No.		2QFY2019 Results	2QFY2018 Results	Change from 2QFY2018
1	Petroleum	13.6	13.0	0.6
2	Petrochemical	7.3	9.9	-2.6
3	Oil E&P	6.5	11.2	-4.7
4	Other	3.0	3.8	-0.8
5	Adjustment	0.8	-1.0	1.8
6	Total	31.2	36.9	-5.7
7	Investment securities, etc.*	1.9	0.5	1.4

(Reference)

Unit: billion yen

No.		FY2019 Forecast	FY2018 Results	Changes
1	Petroleum	57.4	33.3	24.1
2	Petrochemical	15.5	16.7	-1.2
3	Oil E&P	24.8	23.3	1.5
4	Other	7.8	9.0	-1.2
5	Adjustment	-2.0	-1.9	-0.1
6	Total	103.5	80.4	23.1
7	Investment securities, etc.*	14.6	5.1	9.5

\*Investment securities, etc. are included in the net investment amount of ¥ 360.0 billion in the 6th mid-term plan (from FY2018 to FY2022).

# Supplementary Information

## P.15-24 [2Q FY2019 Results] Supplementary Information

- Sales Volume, CDU Operating Ratios (2Q FY2019 results/FY2019 Forecast)
- Crude Oil Production Volume, Crude Reserves Estimate (Proved and Probable)
- Results by Business Segment - Changes from 2Q FY2019
- Main data of each business
- Historical Changes in Dubai Crude Oil Price
- Gasoline Export and Margin Environment
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- Market Condition of Benzene Products and Aromatic Products

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- Highlights of Consolidated Business Outlook (Changes from FY2018), Precondition and Business Sensitivity
- Consolidated Ordinary profit (Excluding the impact of inventory valuation)- Analysis of Changes from FY2018
- Outline of Consolidated Capital Expenditures
- Outlook by Business Segment, Changes from FY2018

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- Oil E&P Business , Petroleum Business, Petrochemical Business, Wind Power Generation Business

## P.41-55 The 6th Consolidated Medium-Term Management Plan (Announced on March 20,2018)

- Overview of The 6th Consolidated Medium-Term Management Plan
- Business Strategy

## P.56-59 Zero Coupon Convertible Bonds due 2022 (being bonds with stock acquisition rights) (Announced on December 20,2018)

**Supplementary Information of  
2Q FY2019 Results**



# [2Q FY2019 Results / FY2019 Forecast ] Sales Volume, CDU Operating Ratios 16

Unit: thousand KL

No.			2QFY2019 Results	2QFY2018 Results	Changes	FY2019 Forecast	FY2019 forecast changes from FY2018
1	Selling volume in Japan	Gasoline	3,022	2,775	108.9%	6,397	113.4%
2		Kerosene	487	379	128.5%	2,071	119.3%
3		Diesel fuel	2,431	2,183	111.4%	4,894	108.1%
4		Heavy fuel oil A	673	598	112.6%	1,546	108.0%
5		Sub-Total	6,613	5,935	111.4%	14,909	111.8%
6		Naphtha	3,013	2,728	110.4%	6,690	116.3%
7		Jet fuel	241	221	108.8%	473	101.7%
8		Heavy fuel oil C	410	513	79.9%	861	85.3%
9		inc. Heavy fuel oil C for electric power	42	96	43.3%	86	49.0%
10		Total	10,277	9,398	109.4%	22,934	111.5%
11	Export volume	Middle distillates (Jet, Kerosene/Diesel fuel)	198	-	-	650	189.2%
12		Bonded products and other	1,459	1,536	95.0%	2,965	92.4%
13		Sub-Total	1,656	1,536	107.9%	3,615	101.8%
14	Total		11,933	10,934	109.1%	26,549	110.1%

No.			2QFY2019 Results	2QFY2018 Results	Changes
1	CDU operating ratio	(Calendar Day basis) *1	89.2%	81.4%	7.8%
2		(Streaming Day basis) *1,2	96.3%	95.3%	0.9%

\*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.

# [2Q FY2019 Results] Crude Oil Production Volume, Crude Reserves Estimate (Proved and Probable)

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[1] Crude oil production volume				
	2QFY2019 Results	2QFY2018 Results	Changes	
Cosmo Energy Exploration & Production Co., Ltd. (B/D)	50,824	52,425	-1,601	96.9%

\*1) The production volume represents the total production volumes of the three major developers: Abu Dhabi Oil Co., Ltd., Qatar Petroleum Development Co., Ltd., and United Petroleum Development Co., Ltd.

\*2) The production period has calculated in the January-June, because that the three major developers of the accounting period is December.

\*3) The Cosmo Energy Group has a 51.5% stake in Abu Dhabi Oil Co., Ltd., a 75.0% stake in Qatar Petroleum Development Co., Ltd. and a 50.0% stake in United Petroleum Development Co., Ltd.

(As of Dec 31, 2018)

[2] Crude Reserves Estimate (working interest base) (*1)		
	mmbbls	
Total Proved (*2) and Probable Reserves (*3)	167.0	Note: The reserves include reserves of new concession area, the Hail Oil Field.
(Ref.: Reserves to Production Ratio of Total Proved and Probable Reserves )	about 18 years	Note: The daily average crude production based on working interest reached 25 thousands bpd for FY2018 (Jan-Dec).

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

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

## (\*2) Proved Reserves

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

## (\*3) Probable Reserves

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

# [2Q FY2019 Results] Results by Business Segment– Changes from 2QFY2018<sub>18</sub>

## 2Q FY2019 Results – Changes from 2Q FY2018

Unit: billion yen

No.		Net Sales		Operating Profit		Ordinary Profit		Ordinary Profit (excluding the impact of inventory valuation)	
			Changes from 2QFY2018		Changes from 2QFY2018		Changes from 2QFY2018		Changes from 2QFY2018
1	Petroleum business	1,210.7	-9.2	-0.9	-37.9	-1.9	-36.7	4.9	-7.7
2	Petrochemical business	206.4	-17.0	1.7	-7.4	6.6	-5.4	6.6	-5.4
3	Oil E&P business	44.2	-9.4	19.9	-9.0	19.6	-8.9	19.6	-8.9
4	Other	29.7	-1.8	2.1	-0.5	2.1	-0.4	2.1	-0.4
5	Adjustment	-169.5	25.4	3.4	1.9	2.8	1.9	2.8	1.9
6	Total	1,321.5	-12.0	26.2	-52.9	29.2	-49.5	36.0	-20.5

## 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., Sogo Energy 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., 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.
Other	Cosmo Engineering Co.,Ltd., Cosmo Trade & Services Co., Ltd., Cosmo Eco Power Co.,Ltd , etc.

## 1. Petroleum business

### (1) Refinery Operating Ratio

	FY2014	FY2015	FY2016	FY2017	FY2018	2Q FY2019
CDU operating ratio (Calendar Day basis) *1	84.0%	83.2%	88.3%	94.1%	86.1%	89.2%

### (2) Number of SSs by Operator Type

	FY2014	FY2015	FY2016	FY2017	FY2018	2Q FY2019
Subsidiary	881	920	895	885	855	846
Dealers	2,252	2,134	2,062	1,973	1,936	1,923
Total *2	3,133	3,054	2,957	2,858	2,791	2,769
Number of Self-Service SSs *2	1,031	1,036	1,038	1,034	1,048	1,057

### (3) "Cosmo The Card" – Number of credit cards in force & Accumulative number of contracted auto lease

	FY2014	FY2015	FY2016	FY2017	FY2018	2Q FY2019
Cosmo The Card (million cards) *2	4.31	4.39	4.44	4.44	4.33	4.26
Auto lease (Units) *2	19,040	27,401	37,077	47,602	60,579	66,576

## 2. Oil E&P business

### Crude oil production volume

	FY2014	FY2015	FY2016	FY2017	FY2018	2Q FY2019
Cosmo Energy E&P Co., Ltd. (B/D) *3	38,031	39,201	39,032	38,826	52,303	50,824

## 3. Wind power generation business

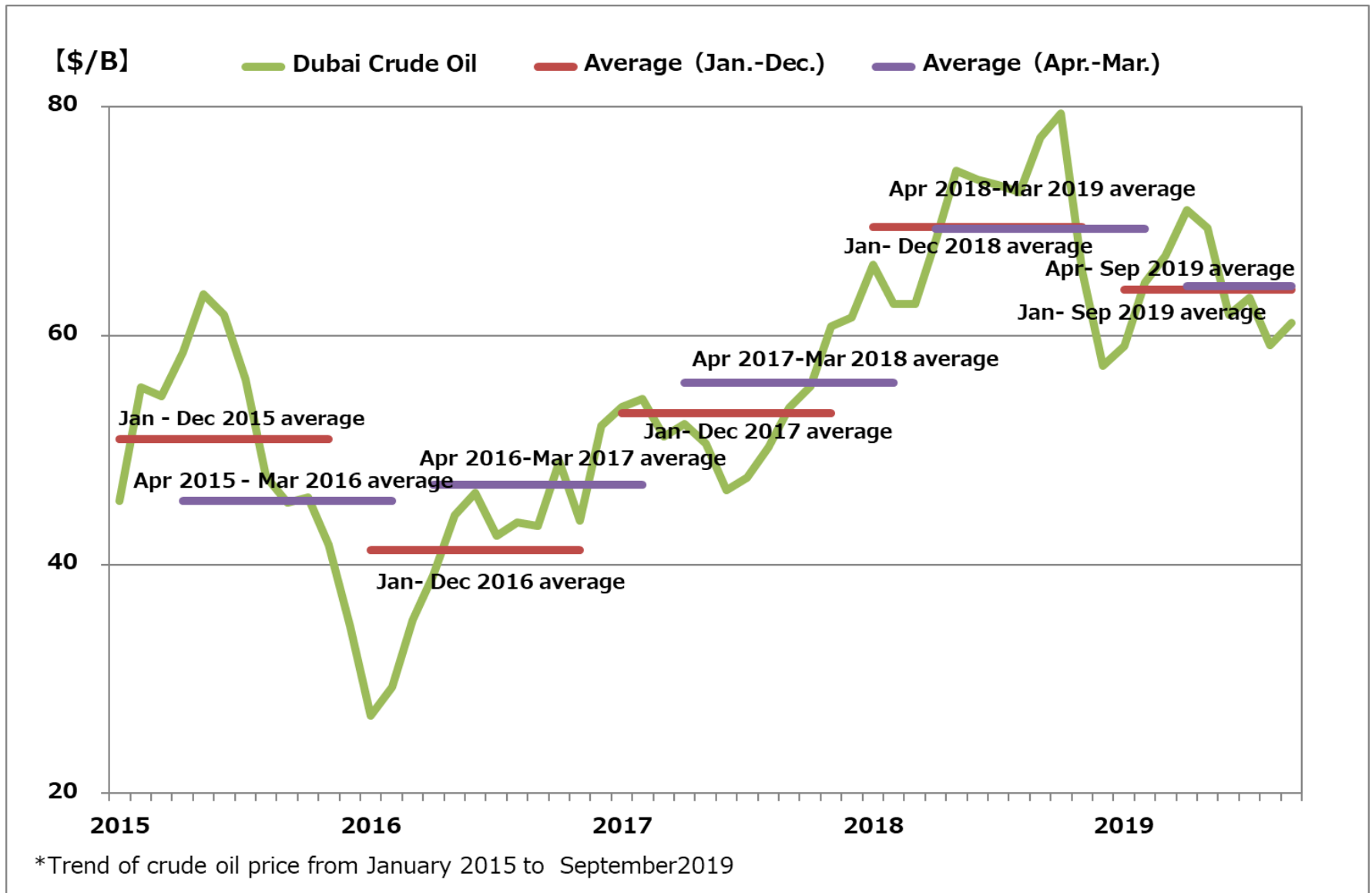
### Wind power generation capacity (ten thousand kW)

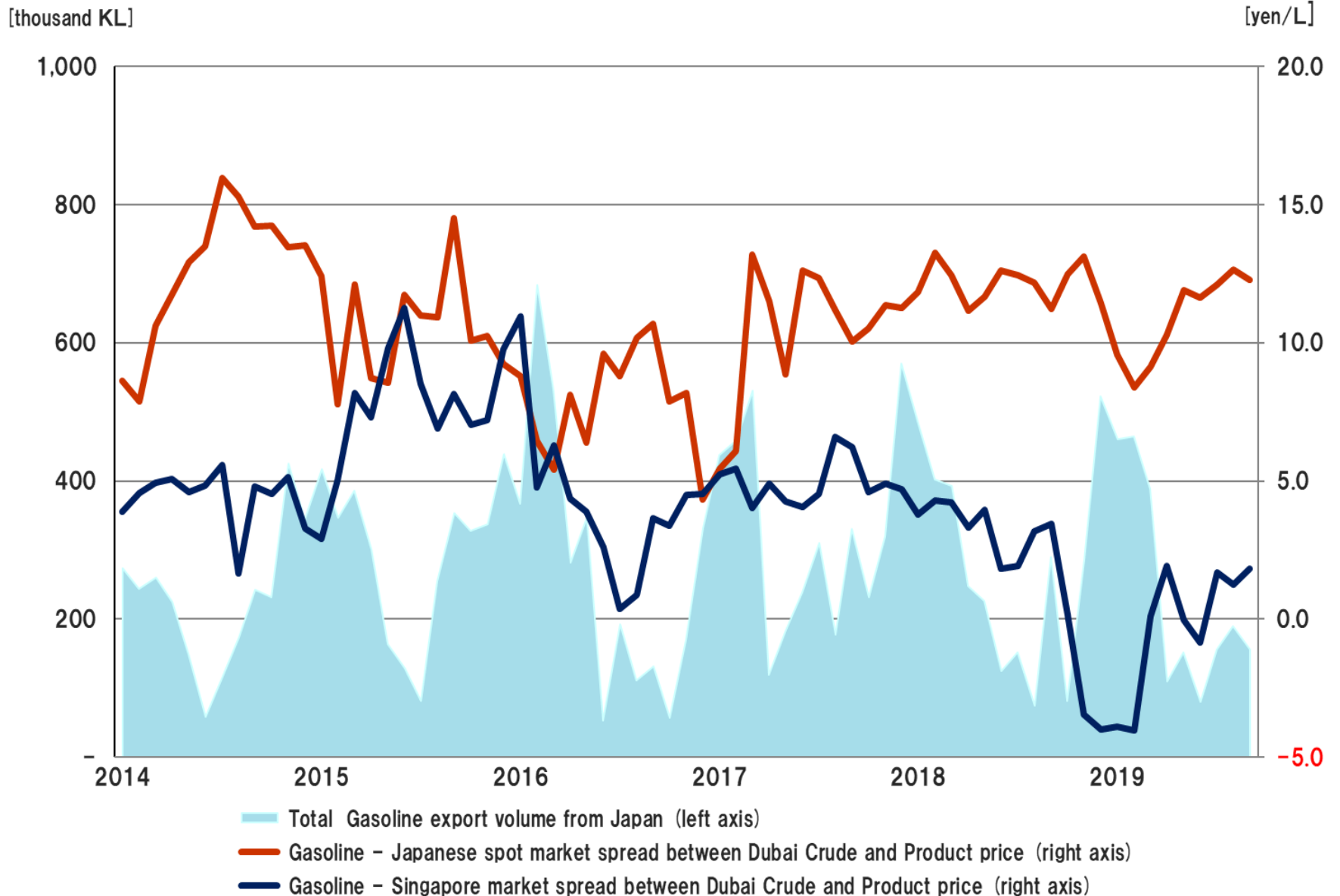
	FY2014	FY2015	FY2016	FY2017	FY2018	2Q FY2019
Power generation Capacity*2	18.3	18.4	21.1	22.7	22.7	26.6

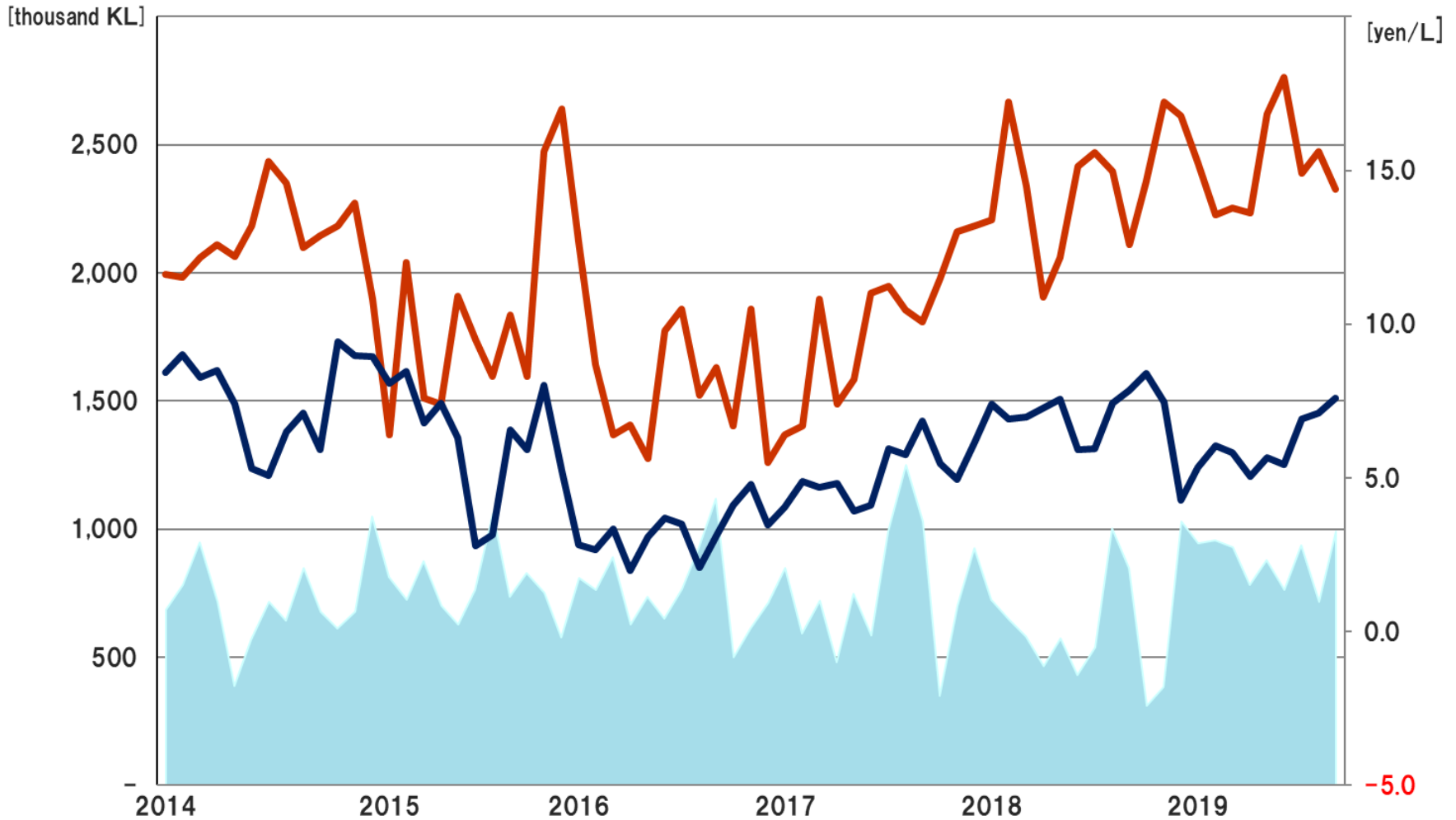
\*1) April–March results for each fiscal year \*2) At the end of March of each fiscal year

\*3) January–December results for each fiscal year

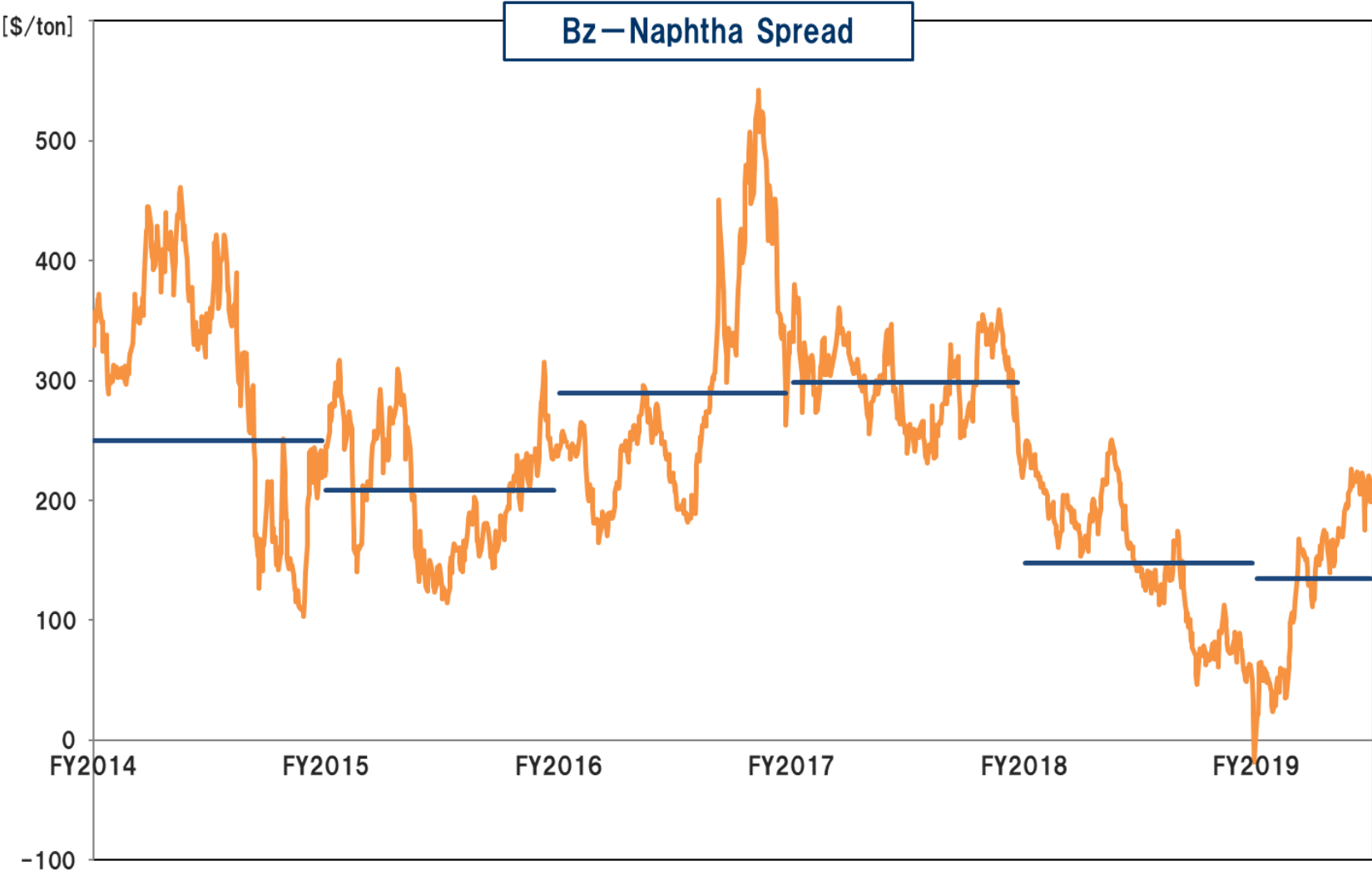
# Historical Changes in Dubai Crude Oil Price





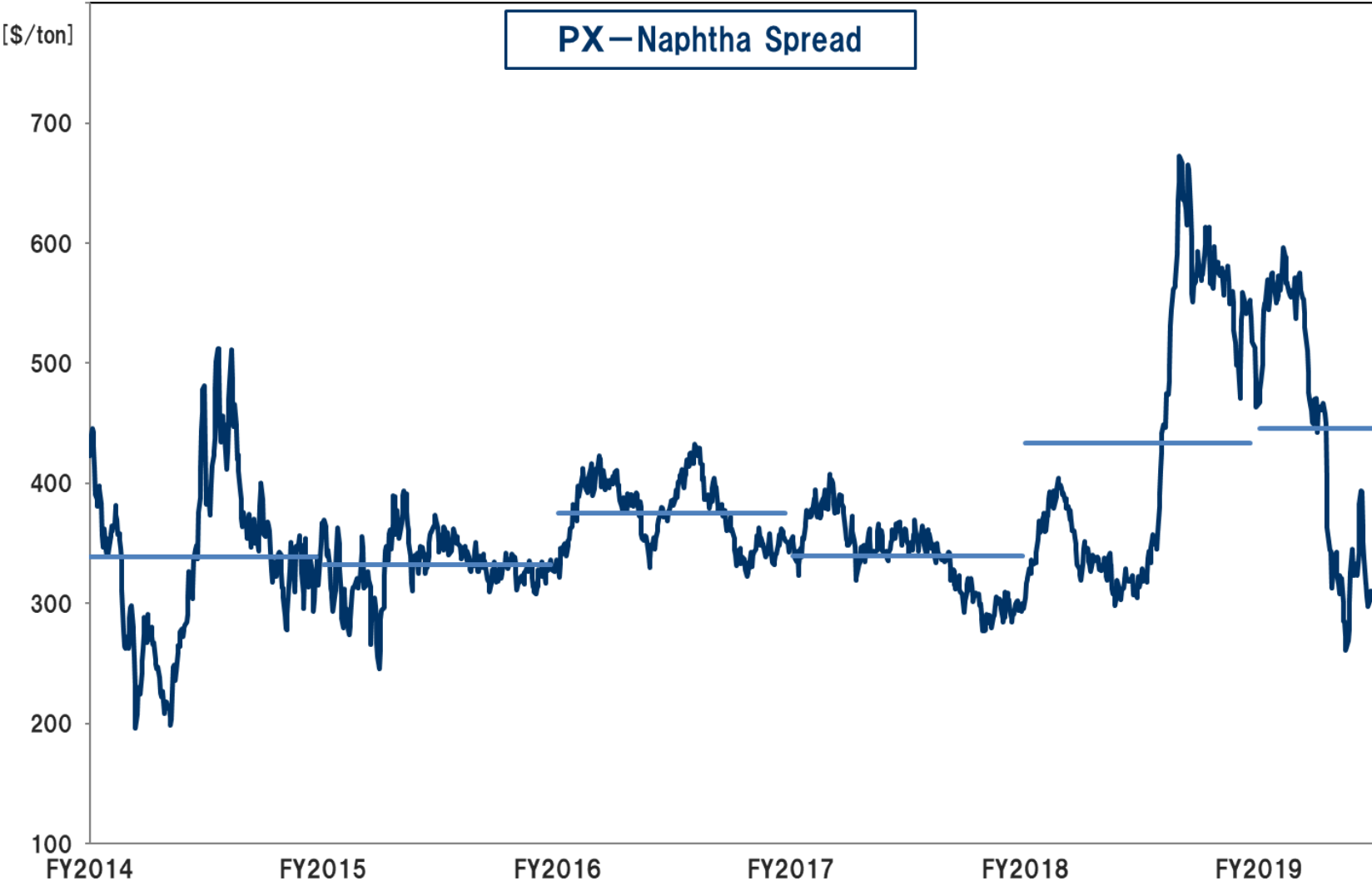


- Total diesel fuel export volume from Japan (left axis)
- Diesel fuel - Japanese spot market spread between Dubai Crude and Product price (right axis)
- Diesel fuel - Singapore market spread between Dubai Crude and Product price (right axis)



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





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

**Forecast for FY2019 Performance  
(Announced on May 9,2019)**

# [ FY2019 Forecast ] Highlights of Consolidated Business Outlook (Changes from FY2018) Precondition, and Business Sensitivity

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Unit : billion yen

No.		FY2019 Forecast		FY2018 Results		Changes		
		Ordinary income	Ordinary income exc. the Impact of Inventory valuation	Ordinary income	Ordinary income exc. the Impact of Inventory valuation	Ordinary income	Ordinary income exc. the Impact of Inventory valuation	
1	Total	111.0	106.0	96.7	107.4	14.3	-1.4	
2	(Each segment)	Petroleum business	42.0	37.0	14.2	24.9	27.8	12.1
3		Petrochemical business	18.0		15.3		2.7	
4		Oil E&P business (*1)	40.0		56.9		-16.9	
5		Other (*2)	11.0		10.3		0.7	

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

(\*2) Including consolidated adjustment

No.		FY2019 Forecast	FY2018 Results	Changes
6	Profit attributable to owners of parent	60.0	53.1	6.9
7	Dividend per Share (Plan)	¥80	¥80	-

## ■ Precondition

No.		FY2019 Forecast	FY2018 Results	Changes
8	Dubai crude oil price (USD/B) (Apr.-Mar.)	65	69	-4
9	JPY/USD exchange rate (Apr.-Mar.)	110	111	-1
10	Dubai crude oil price (USD/B) (Jan.-Dec.)	65	69	-4
11	JPY/USD exchange rate (Jan.-Dec.)	110	110	-

12	Spread between Ethylene-Naphtha (\$/ton) (Apr.-Mar.)	500	537	-37
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## ■ Sensitivity

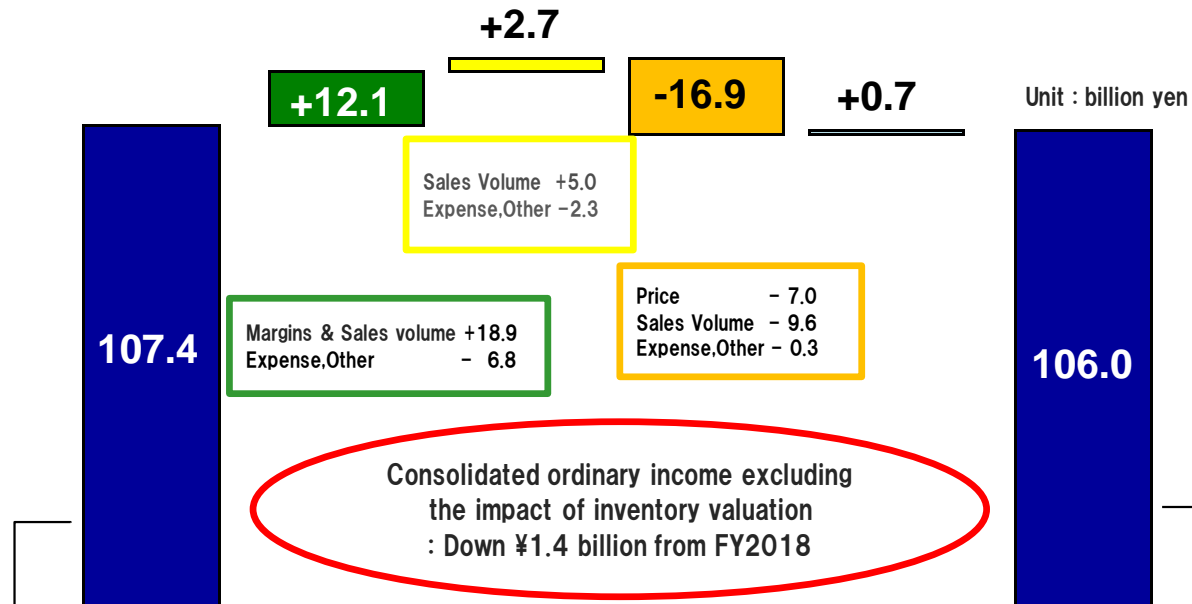
No.		Item	Crude oil (Dubai)	JPY/USD exchange rate
13	Petroleum Business	Inventory Impact	2.0 billion yen	1.2 billion yen
14		Refinery fuel cost etc.	-0.5 billion yen	-0.3 billion yen
15		Total	1.5 billion yen	0.9 billion yen
16	Oil E&P Business		0.9 billion yen	0.2 billion yen

\* Figures above refer to impacts by crude oil price (USD 1/bbl) and yen-dollar exchange rate (¥1/USD) fluctuations. A nine-month period of Apr.-Dec.2019 for the oil E&P business

# [FY2019 Forecast] Consolidated Ordinary Income (Excluding the impact of inventory valuation) - Analysis of Changes from FY2018

**Key variable factors**

- Petroleum business** : An increase in sales volume and eliminating the impact of partial trouble of equipment that occurred in the previous year.
- Petrochemical business** : A rise in the production volume at Maruzen Petrochemical Co., Ltd., assisted by the elimination of the impact of regular maintenance in the previous year.
- Oil E&P business** : A controlled decrease in the production volume at the Hail Oil Field to secure the production volume on a long-term basis.



FY2018 Results	FY2019 Forecast				Ordinary income exc. the impact of inventory valuation
Ordinary income exc. the impact of inventory valuation	Petroleum business	Petrochemical business	Oil E&P business	Other (Wind Power Generation)	Ordinary income exc. the impact of inventory valuation
<b>107.4</b>	24.9	15.3	56.9	10.3	
	37.0	18.0	40.0	11.0	<b>106.0</b>

## Capital Expenditures. Depreciation, etc.

Unit: billion yen

No.		FY2019 Forecast	Change from FY2018
1	Capital expenditures	103.5	23.1
2	Depreciation expense amount, etc	62.5	8.3

## Capital Expenditures by Business Segment

Unit: billion yen

No.		FY2019 Forecast	FY2018 Results	Changes
1	Petroleum	57.4	33.3	24.1
2	Petrochemical	15.5	16.7	-1.2
3	Oil E&P	24.8	23.3	1.5
4	Other	7.8	9.0	-1.2
5	Adjustment	-2.0	-1.9	-0.1
6	Total	103.5	80.4	23.1
7	Investment securities, etc*	14.6	5.1	9.5

\*Investment securities, etc. are included in the net investment amount of ¥ 360.0 billion in the 6th mid-term plan (from FY2018 to FY2022).

# [FY2019 Forecast] Outlook by Business Segment, Changes from FY2018 29

## FY2019 Forecast – Changes from FY2018

Unit: billion yen

No.		Net Sales		Operating Income		Ordinary Income		Ordinary Profit (excluding the impact of inventory valuation)	
			Changes from FY2018		Changes from FY2018		Changes from FY2018		Changes from FY2018
1	Petroleum business	2,605.0	78.1	43.5	26.0	42.0	27.8	37.0	12.1
2	Petrochemical business	517.0	58.4	10.5	3.4	18.0	2.7	18.0	2.7
3	Oil E&P business	91.0	-20.7	41.5	-16.7	40.0	-16.9	40.0	-16.9
4	Other	78.0	17.8	8.0	1.6	8.0	1.9	8.0	1.9
5	Adjustment	-378.0	9.0	5.5	-	3.0	-1.2	3.0	-1.2
6	Total	2,913.0	142.6	109.0	14.3	111.0	14.3	106.0	-1.4

## 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., Sogo Energy 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., 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.
Other	Cosmo Engineering Co.,Ltd., Cosmo Trade & Services Co., Ltd., Cosmo Eco Power Co.,Ltd , etc.

# **Business Outline**

# Cosmo Energy Group Business Overview

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Each segment	Oil E&P business	Petroleum business	Petrochemical business	Other (Wind Power Generation)	Total <sup>*2</sup>
Net sales <sup>*1</sup>	91.0billion yen	2,605.0billion yen	517.0billion yen	78.0billion yen	2,913.0billion yen
Ordinary profit <sup>*1</sup>	40.0billion yen	42.0billion yen	18.0billion yen	11.0billion yen <sup>*2</sup>	111.0billion yen
Ordinary profit excluding <sup>*1</sup> impact of inventory valuation	40.0billion yen	37.0billion yen	18.0billion yen	11.0billion yen <sup>*2</sup>	106.0billion yen

<b>Major assets</b>	<p>■ Partnerships Solid relationship of trust with oil producing countries for about 50 years</p>	<p>■ CDU capacity <sup>*5,*6</sup> 400,000 BD (Domestic market share: Approx. 11.4%)</p>	<p>■ Olefinic production capacity <sup>*5</sup> Ethylene 1.29 mil tons/year (Domestic market share: Approx. 19%)</p>	<p>■ Wind power generation <sup>*5</sup> 227,000 kW (No. 3 in Japan and a 6% domestic share)</p>	<p>■ Corporate brand awareness</p>  98.4% <p>※Survey of 1,239 customers (men and women, 18-64 years old) who used a service station in the past one month (as of October 30, 2017)</p>
	<p>■ Operatorship (self-operation) We produces the largest volume of crude oil in the Middle East region for a Japanese operator.</p>	<p>■ Domestic Sales Volume <sup>*1</sup> 20,566thousand KL</p>	<p>■ Aromatic production capacity <sup>*5</sup> Para-xylene 1.180 mil tons/year Benzene 0.735 mil tons/year Mixed-xylene 0.618 mil tons/year</p>	<p>■ Solar power generation <sup>*5</sup> 24,000 kw</p>	
	<p>■ Crude Oil Production <sup>*3</sup> Approx. 52 thousand B/D (Comparison with refining capacity: Approx. 13%)</p>	<p>■ Number of Service station <sup>*5</sup> 2,791</p>			
	<p>■ Crude Oil Reserves (Proved and Probable) <sup>*4</sup> 167.0 million barrels (Equivalent to approx. 18 years of supply)</p>	<p>■ Number of the “Cosmo the Card” Holders <sup>*5</sup> 4.33million cards</p>	<p>■ Car leasing business for <sup>*5</sup> individuals Cumulative total 60,579cars</p>		

<b>Major business companies related companies</b>	<ul style="list-style-type: none"> <li>• Cosmo Energy Exploration &amp; Production</li> <li>• Abu Dhabi Oil (UAE)</li> <li>• Qatar Petroleum Development (Qatar)</li> <li>• United Petroleum Development (UAE/Qatar)</li> </ul>	<ul style="list-style-type: none"> <li>• Cosmo Oil</li> <li>• Cosmo Oil Lubricants</li> <li>• Gyxis(LPG)</li> <li>• Cosmo Oil Marketing</li> <li>• Cosmo Oil Sales</li> <li>• Sogo Energy</li> </ul>	<ul style="list-style-type: none"> <li>• Maruzen Petrochemical (Chiba/Yokkaichi)</li> <li>• Cosmo Matsuyama Oil</li> <li>• CM Aromatics (Chiba)</li> <li>• Hyundai Cosmo Petrochemical (Korea)</li> </ul>	<ul style="list-style-type: none"> <li>• Cosmo Eco Power (Wind power generation)</li> <li>• Cosmo Engineering</li> <li>• Cosmo Trade and Service</li> </ul>	—
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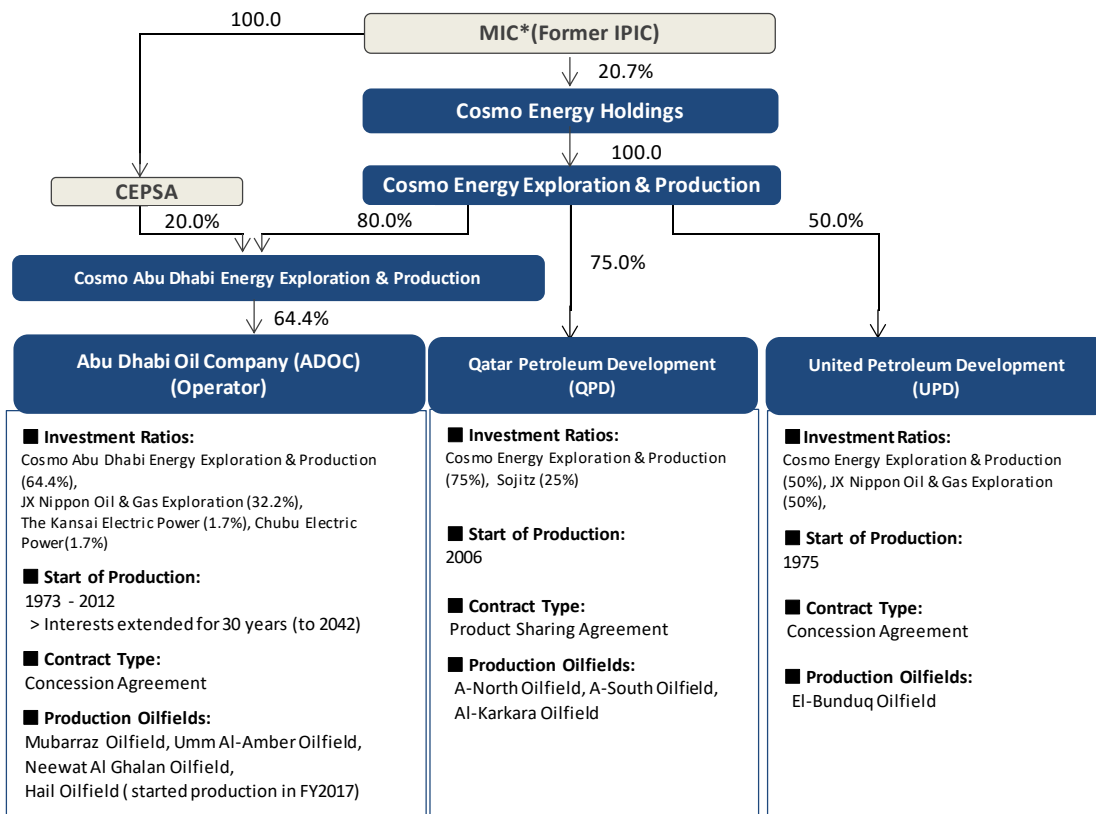
(<sup>\*1</sup>)FY2019 Forecast, (<sup>\*2</sup>) Including consolidated adjustment, (<sup>\*3</sup>)FY2018 Results, (<sup>\*4</sup>)As of Dec. 31, 2018, (<sup>\*5</sup>)As of Mar. 31, 2019

(<sup>\*6</sup>)Including the supply of the petroleum product/semi product (37,000 bbls/day equivalent) from Idemitsu Showa Shell Group with the business alliance.

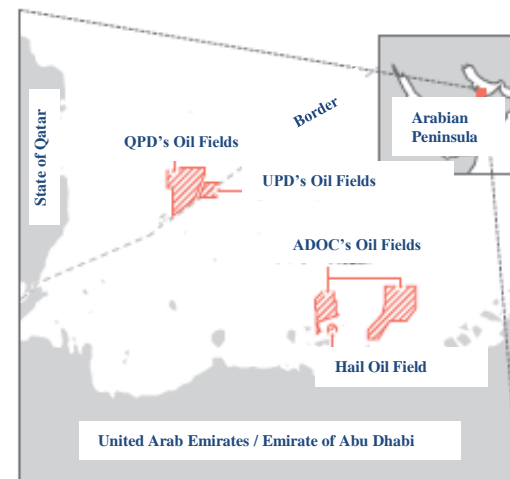


- ✓ Based on a strong relationship of trust with Emirate of Abu Dhabi in the Middle East developed almost five decades, we have achieved low-risk, low-cost development.
- ✓ Abu Dhabi Oil Company extended concessions (30 years) in 2012 and obtained new concessions area, the Hail Oil Field is projected to the same production volume as its three existing oilfields.
- ✓ Started production from the Hail Oil Field in FY 2017 with production ramping up to full-scale in January 2018.

## ■ Cosmo Energy Group Oil E&P Division



## ■ Cosmo Energy Group's oil fields



(\*) MIC (Mubadala Investment Company) in which The Emirate of Abu Dhabi has a 100% stake, has been established as a holding company in association with the business combination of IPIC (International Petroleum Investment Company), and MDC (Mubadala Development Company).

- ✓ Risk Tolerance : Low oil price risk, exploration risk, funding risk
- ✓ Growth Strategy (Production Increase) : The Hail Oil Field development, Consideration of joint development with Cepsa
- ✓ Long-term Stable Production : Solid trust relationships with oil producing countries, High quality oil fields and oil recovery technologies

## ■ Risk Tolerance ■

- Earning power under low oil prices → For FY2016 Q1 (January to March), we maintained profitability under conditions where Dubai crude was priced at \$30 per barrel.
- Achieving low-cost development through discovered and undeveloped oilfields (including the Hail oilfield)
- Loans provided by Japanese public institutions (JBIC) with credit of the operator (ADOC)

## ■ Growth Strategy ■

- At peak production, production capacity of the Hail Oil Field is equivalent to the three existing oilfields of ADOC
- Strategic comprehensive alliance with MIC(former IPIC)-owned Cepsa, deliberating new oilfield development with Abu Dhabi National Oil Company and CEPSPA

## ■ Long-term Stable Production ■

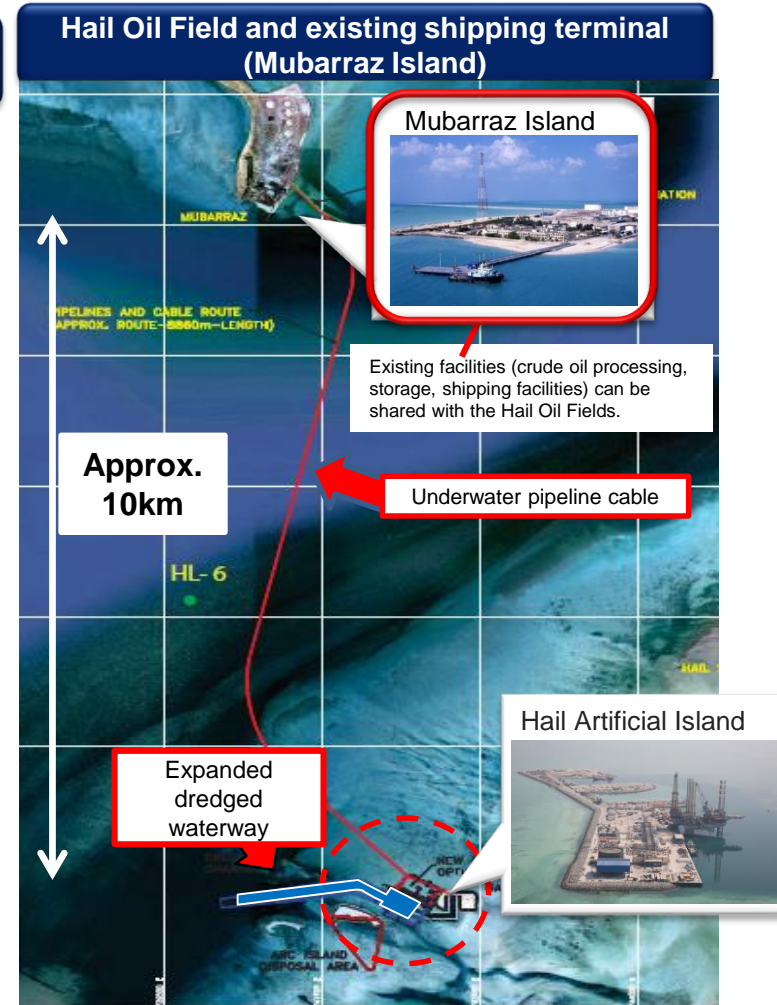
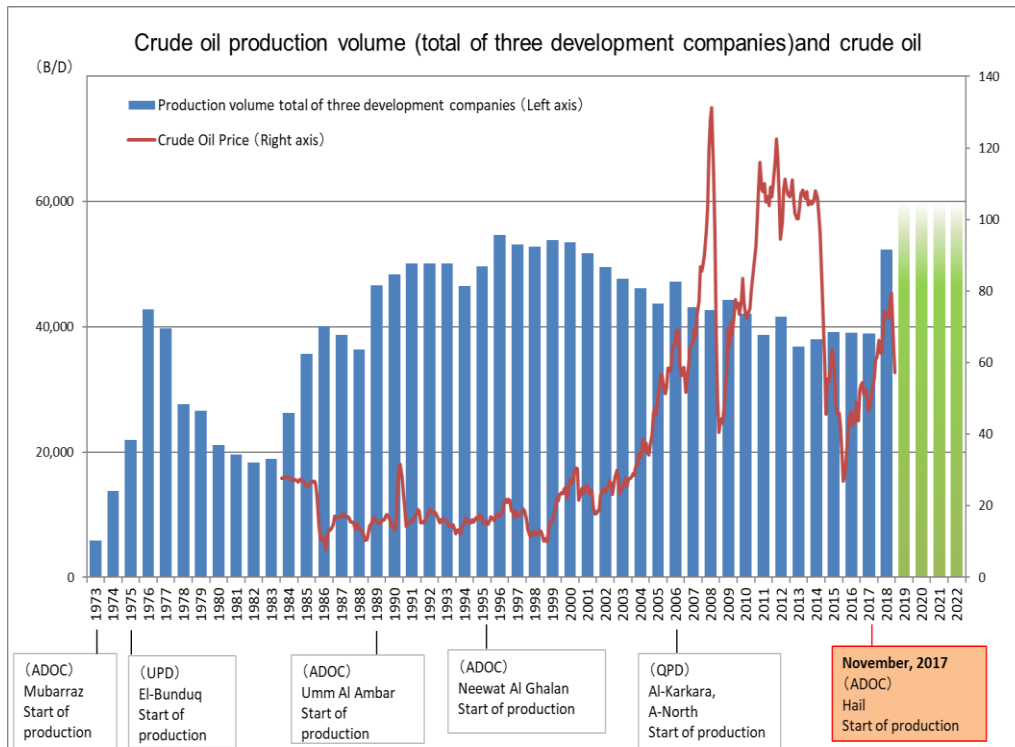
- Obtained interests before founding of UAE, with safe operation and stable production for almost five decades
- Long-term, stable purchase of crude oil from UAE (Abu Dhabi) and Qatar
- Contributions to both countries in terms of culture(Japanese language education, etc.) and the environment (zero flaring, etc.)

### Business Environment in the Middle East Region (UAE / QATAR)

- The Arabian Gulf has many reserves and a lot of exploratory data has been accumulated (which translates into low oil exploration costs)
- Shallow water depth (relatively lower exploration, development and operating costs)

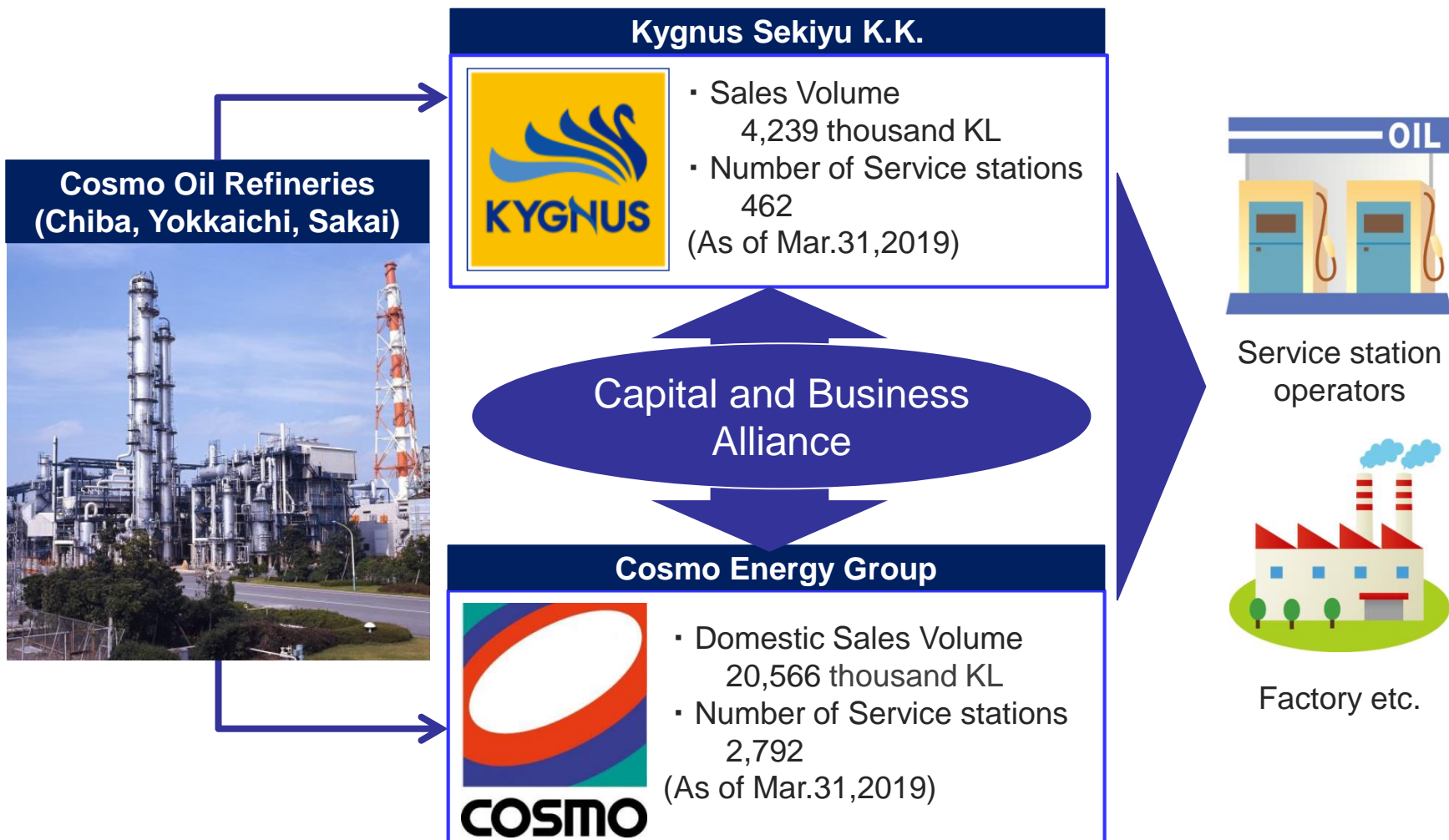
- ✓ The Hail Oil Field started production in November 2017. (interest period – through year 2042)
- ✓ The Hail Oil Filed investment has been curbed with the shared use of existing oil processing, storage and shipping facilities (Estimated savings of 300-400 million dollars), and after the start of production, per unit operating costs are expected to decline for the increment of production volume.

## Prolonged stable oil production



\*1) ADOC : Abu Dhabi Oil Company, UPD : United Petroleum Development, QPD : Qatar Petroleum Development  
 \*2) Production volume of three development companies are per year (annual average of January to December each year)  
 \*3) Crude oil prices (Platt's Dubai crude) are average monthly  
 \*4) The production volume of three development companies after fiscal 2018 is prospective volume.

- ✓ Conclude a capital and business alliance with Kygnus Sekiyu K.K. and acquired 20% of common shares.
- ✓ Begin supplying petroleum products to Kygnus Sekiyu K.K. around CY2020.
- ✓ Advance discussion and consideration with a view to a business alliance, in addition to the supply of petroleum products.

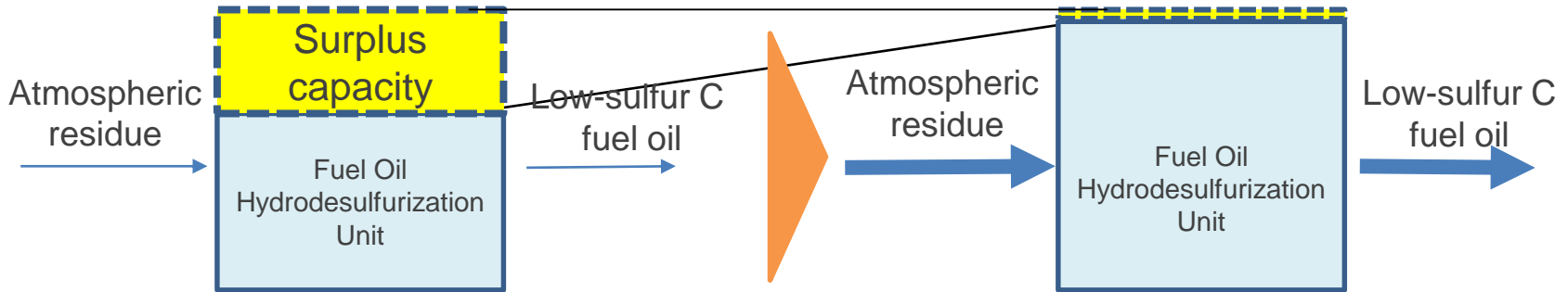


✓ International Maritime Organization (IMO) is to strengthen its regulation in 2020 by setting the upper limit of sulfur content from 3.5% down to 0.5 and the shipping fuel will be switched from high sulfur C heavy fuel to conforming low sulfur C heavy fuel.

**Before** **After**

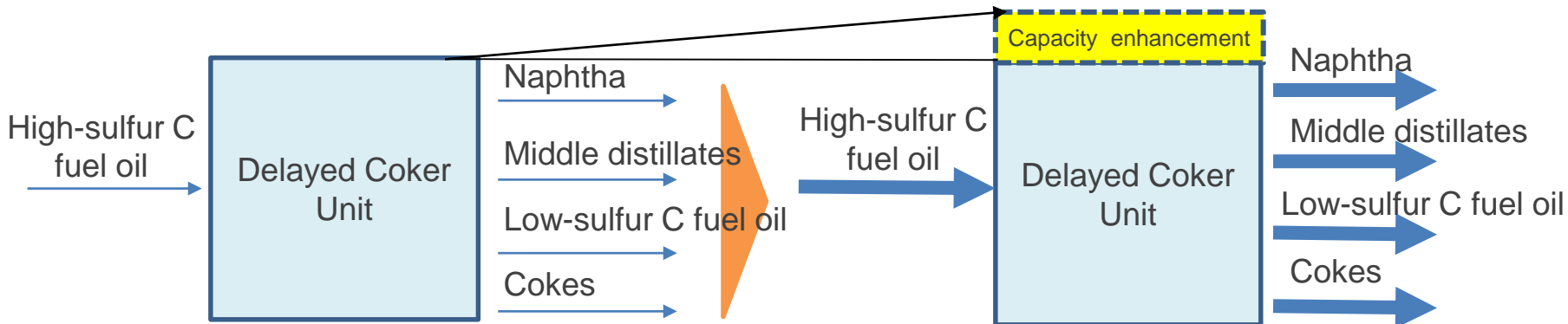
**Chiba Refinery**

To increase production of low sulfur C heavy oil by utilizing Chiba Refinery's DDS(direct desulfurization)



**Sakai Refinery**

Enhance Sakai Refinery's Delayed coker capacity and turn high sulfur C heavy oil into high value added products



# [Petroleum Business] Strengthening the Retail Business (Individual Car Leasing Business)

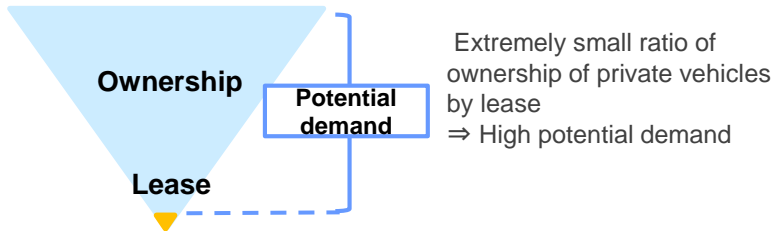
## Low-risk Business Model that Takes Advantage of Strengths of SS

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- ✓ Market : Enter the niche market of auto-leases for individuals that leasing companies could not serve
- ✓ Strategy : Acquire customers using the strengths of SS (frequent contacts of individual customers, etc.)
- ✓ Risk : Low risk due to the absence of car inventory and credit risk
- ✓ Business model: All parties, including customers, leasing companies, Cosmo, and dealerships, win.

### Characteristics

#### ■ Entry to the market with high potential demand



#### ■ Using the strengths of SS

- Frequent contact with individual Customers  
(500,000 units/day) (\*1)  
(\*1) The number of cars of customers visiting Cosmo SS (estimated by Cosmo)
- Acquire customers using membership cards  
("Cosmo The Card": effective number of members  
4.33 mil cards) (\*2) (\*2) As of March 31, 2019
- Fuel oil discount system (patented business model)

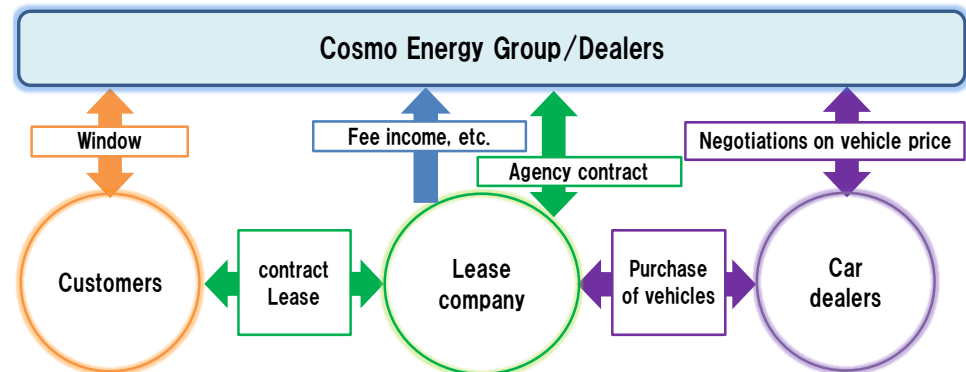
#### ■ Low risk

- Because the SS play the role of dealerships, there is no credit risk or risk of keeping vehicle inventory.

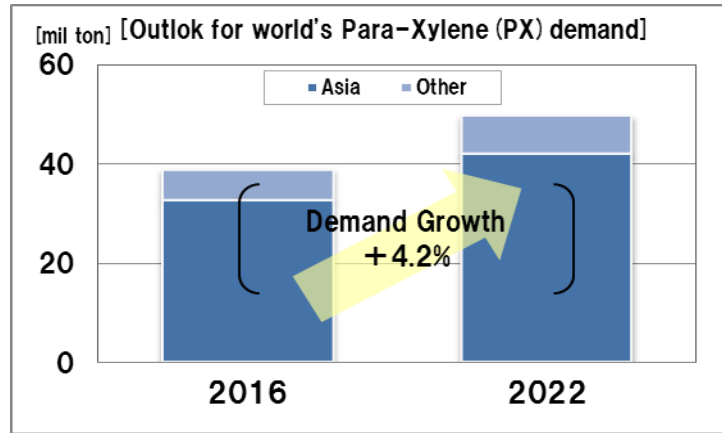
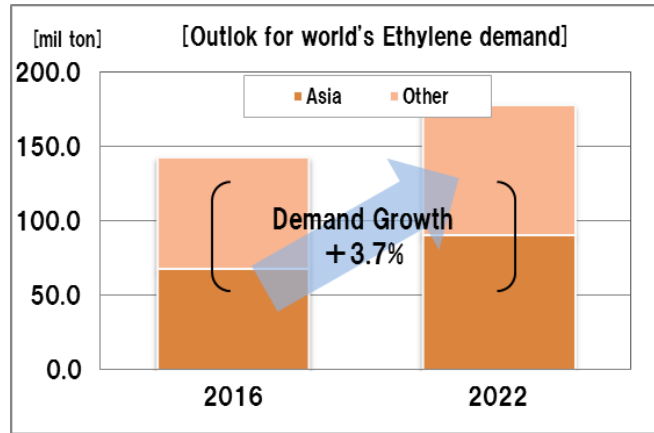
### Win-win business model

Customers : - Being able to drive new cars of any maker and model for a price lower than purchasing  
- No complicated procedures  
e.g. Simplified expenses for using a car (monthly flat rate that includes safety inspections, taxes, insurance, etc.)

Lease companies : Capture new customers  
Cosmo, dealerships : Secure revenue sources that are not solely dependent on fuel oil

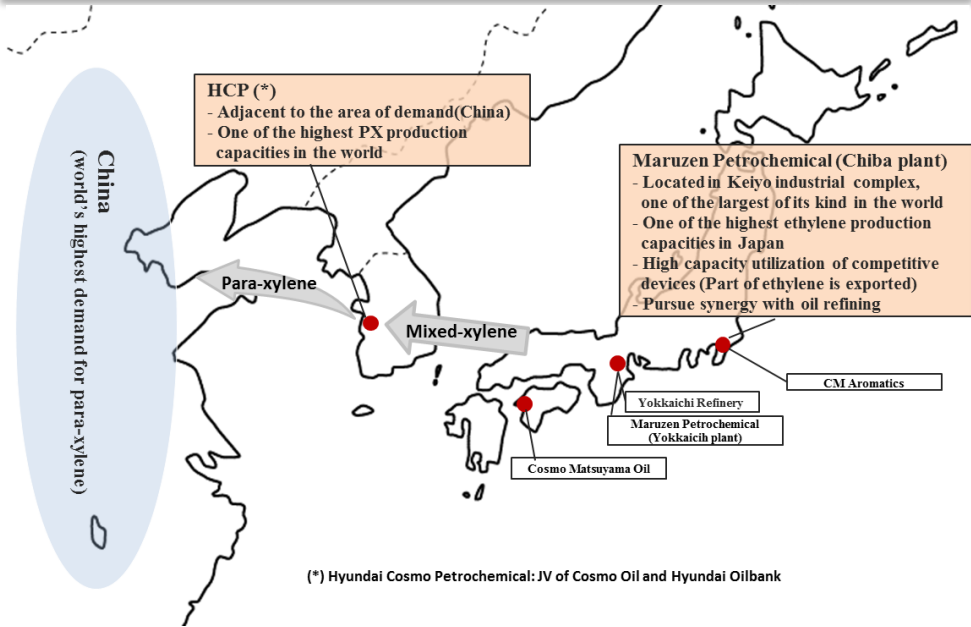


Expected global demand for petrochemical products



Source: Global Demand Trends for Petrochemical Products of the Ministry of Economy, Trade and Industry (2016-2022)

Strengths of Cosmo Energy Group



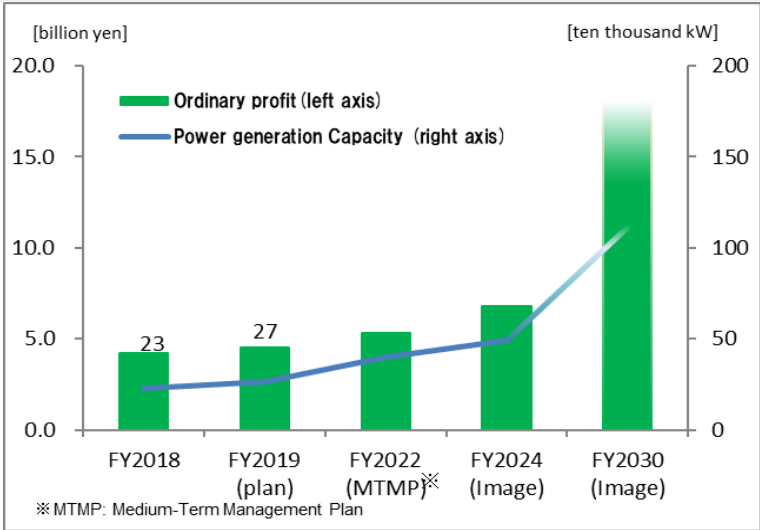
(\*) Hyundai Cosmo Petrochemical: JV of Cosmo Oil and Hyundai Oilbank

Production capacity

Product		Manufacture	Production capacity
Olefin-based	Ethylene	Maruzen Petrochemical	* 1.290 mil t/year
Aroma-based	Para-xylene	Hyundai Cosmo PetroChemical	1.180 mil t/year
		Maruzen Petrochemical	0.395 mil t/year
	Benzene	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 (Yokkaichi Refinery)	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			2.533 mil t/year

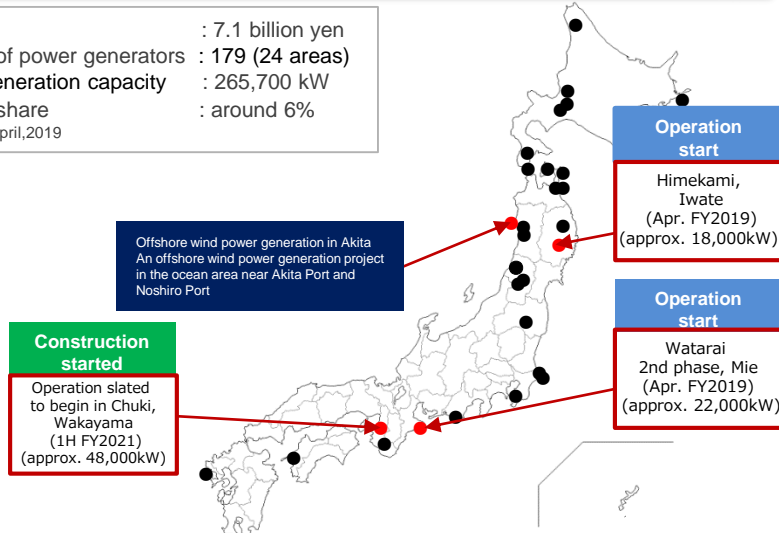
\* Includes production capacity of Keiyo Ethylene (55% owned, consolidated subsidiary of Maruzen Petrochemical)

## Changes in wind power generation capacity



## Overview of Cosmo Eco Power

Capital : 7.1 billion yen  
 Number of power generators : 179 (24 areas)  
 Power generation capacity : 265,700 kW  
 Industry share : around 6%  
\*As of 30 April, 2019



## Characteristics (strengths) of the Group

- ✓ Making Eco Power Co., Ltd., a pioneer in the wind power generation business (founded in 1997), a Group company in 2010.
- ✓ Achieving high on-wind availability (90% or more) through development, construction, operation, and maintenance within the Group.
- ✓ Reducing risks of changes in wind conditions in each region and securing stable profit by placing wind power plants across the nation.
- ✓ Aiming to expand the business in the long term by expanding sites on land and participating in an offshore wind farm project.

## Business environment in Japan

- ✓ The ratio of wind power generation to total power generation in Japan in 2030 is expected to be around three times greater (10 million kW) than the 2017 level (\*2).
- ✓ The FIT scheme was introduced in 2012, and the acquisition price is fixed for 20 years.
- ✓ Entry into the market is not easy because advanced expertise is required in the identification of suitable sites and environmental assessment. (\*3)

(\*2) Source: "The current situation of renewable energy and Calculation Committee for Procurement Price, etc. of this year" Agency for Natural Resources and Energy, September 2017  
 (\*3) Identification of suitable sites (2 to 3 years) → Environmental assessment (4 to 5 years) → Construction work (1 to 2 years) → Start of operation

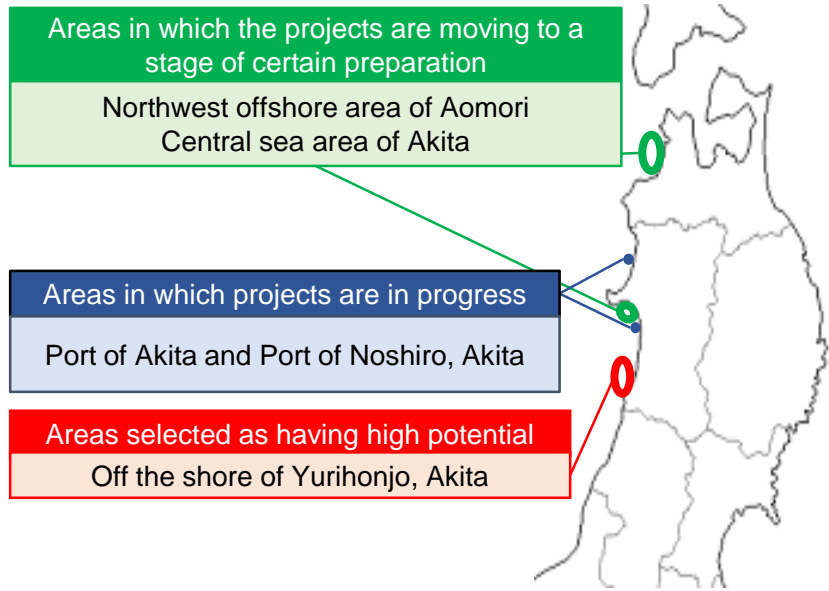


## Efforts in Wind Power Generation

- ✓ Expanding wind power generation is inevitable to achieve 22-24% target in implementing renewable energy under the 2030 Energy Mix.
- ✓ Aiming to expand long term business by entering into projects with expertise of onshore wind power in addition to knowledge accumulated through knowhows in oil and oil development businesses.
- ✓ Waiting for government application process to begin and steadily progressing in negotiations with local municipalities and fishery associations and rights to use power systems.

### Ongoing Wind Power Generation Projects

One business project in Aomori and three in Akita are under consideration.



### Selection Process of Wind Power Generation

Promotion area designation process	at earliest
①Collect informaiton from prefectures	3 months
②Areas selected as having high potential selection	1 month
③Detailed research	3 months
④Promotion area plan decided	1 month
⑤Promotion area plan notification	2 months

Business operator selection process	at earliest
① Public offering policy decided	2 months
② Public offering start, public offering plan submitted by bidders	basically 6 months
③ Review of public offering plans	2 months
④ Evaluation of public offering plans Selection of business operator → expected to be decided Jan-Feb., 2021 at earliest	3 months

# **The 6th Consolidated Medium-Term Management Plan (Announced on March 20,2018)**

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

➔ **Strengthen financial condition based on earning power.**

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

➔ **Contribute to the achievement of SDGs through business activities.**

## Secure profitability to enable reinvestment

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

## Expand growth driver toward the future

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

## Improve financial condition

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

## Strengthen Group management foundation

- ✓ Implement CSR management.
  - Pursue the sustainability of society and the Group.
  - Improve ESG key factors.  
➔ Develop and implement the medium-term CSR management plan (FY2018 – FY2022).
- ✓ Increase productivity through work-style and operational innovation
  - Promote diversity.
  - RPA(Robotic process automation), Thoroughly increased operation efficiency using AI.

**Increase earning power and improve the financial position to achieve a goal of Net worth and DER of 1.0-1.5 times that can withstand changes in the market environment at an early stage.**

**【Management Goals (FY2022)】**

(Unit: billion yen)

1	<b>Ordinary profit</b> (excluding impact of inventory valuation)	<b>Over 120.0</b>
2	<b>Profit attributable to owners of parent</b>	<b>Over 50.0</b>
3	<b>Free cash flow</b> (FY 2018 - FY 2022 Five years total)	<b>Over 150.0</b>
4	<b>Net worth</b> ( Net worth ratio )	<b>Over 400.0</b> (Over 20%)
5	<b>Net Debt Equity Ratio*</b>	<b>1.0~1.5 times</b>
6	<b>ROE</b>	<b>Over 10%</b>

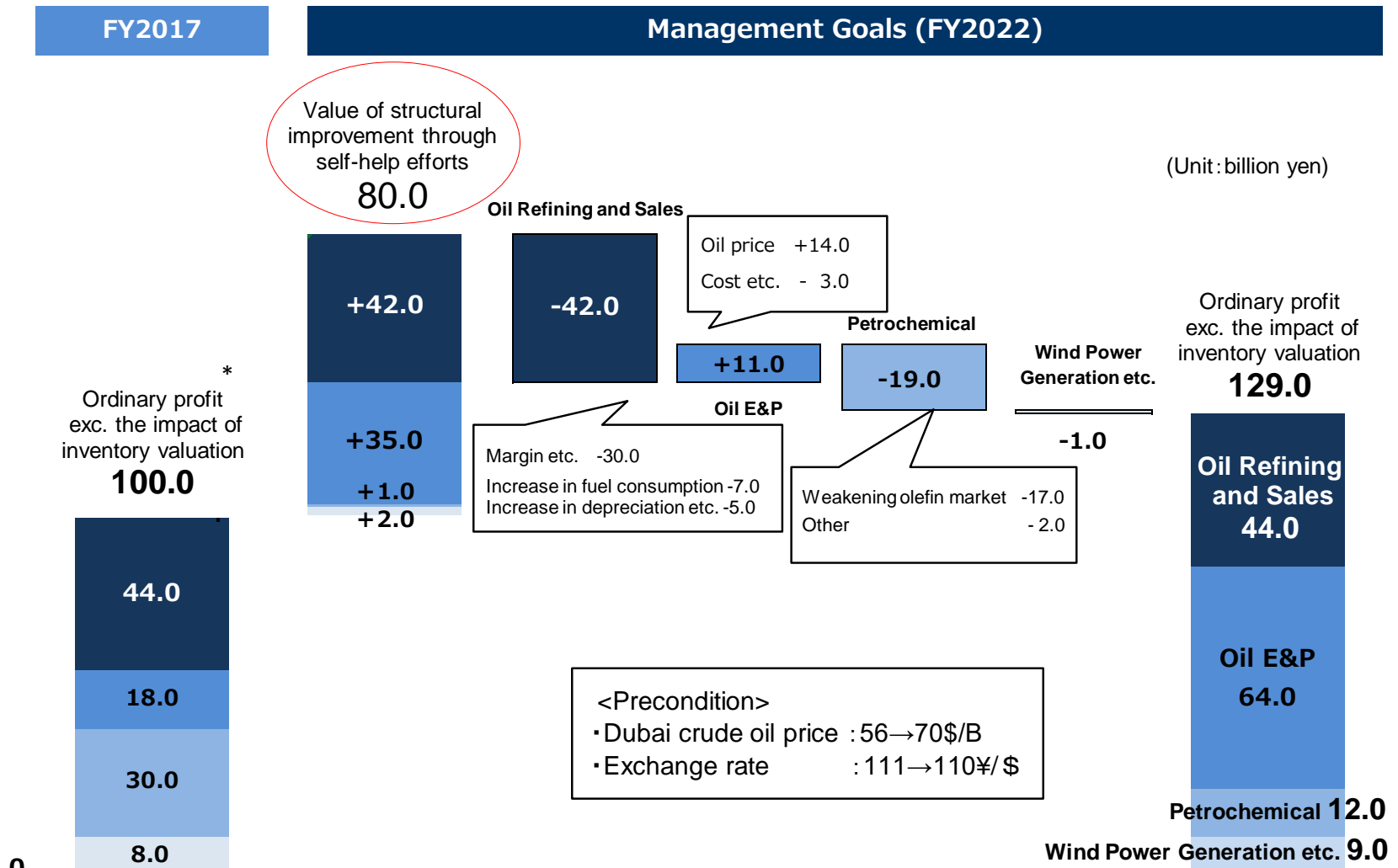
**【 Precondition 】**

**Dubai crude oil price (USD/B) : 70**

**Exchange rate (yen/USD) : 110**

\*Calculated on the basis that 50% of ¥60 billion Hybrid Loan made on April 1, 2015 is included in Equity.

✓ Ordinary profit excluding the impact of inventory valuation is expected to be 129.0 billion yen in FY2022 despite an increase of 80.0 billion yen from FY2017, taking into account the assumptions such as crude oil prices.



\* Above is the forecast at the time when the new consolidated medium-term management plan was developed. Actual ordinary profit (excluding the impact of inventory valuation) was 95.9 billion yen.

An increase of 80.0 billion yen to be achieved, largely through changes such as increasing profitable products composition in oil refining and sales and production of the Hail Oil Field.

						(Unit:billion yen)
	FY2018	FY2019	FY2020	FY2021	FY2022	Im provem ent
Improvement in FY2022 vs 2017 (excl. impact of market condition)						<b>80.0+α</b>
Oil Refining and Sales	Utilizing Chiba Refinery Pipeline					42.0
	Safe and stable operation,Improve utilization rate (Regular maintenance reduction・Chiba Refinery 4 year's operation) ,Synergy creation with petrochemical					
	Achieve no heavy fuel oil production (response to IMO)					
	Start Supply to Kygnus Sekiyu K.K.					
Expansion of vehicle life business						
Oil E&P	Stable production in existing and the Hail Oil Fields ・ OPEX reduction					35.0
Petrochemical	Enhance competitiveness of basic petrochemical product , Pursue synergy with refinery					1.0
	Start C9 petroleum resin business					Cash Flow:8.0 <sup>※</sup>
Wind Power Generation	Expand onshore wind firms (Power generation capacity 230,000kW→400,000kW) (see page 25)					2.0
	Develop offshore wind farms Start offshore wind power site project					
New area	Deepen alliances with MIC, Hyundai Oilbank, and CEPESA					+α
	Sow the seed to new business					

※ Cash Flow: Ordinary profit + Increase in depreciation

**Carry out growth investment and shareholder returns while considering balance with the financial position.**

(Unit: billion yen)

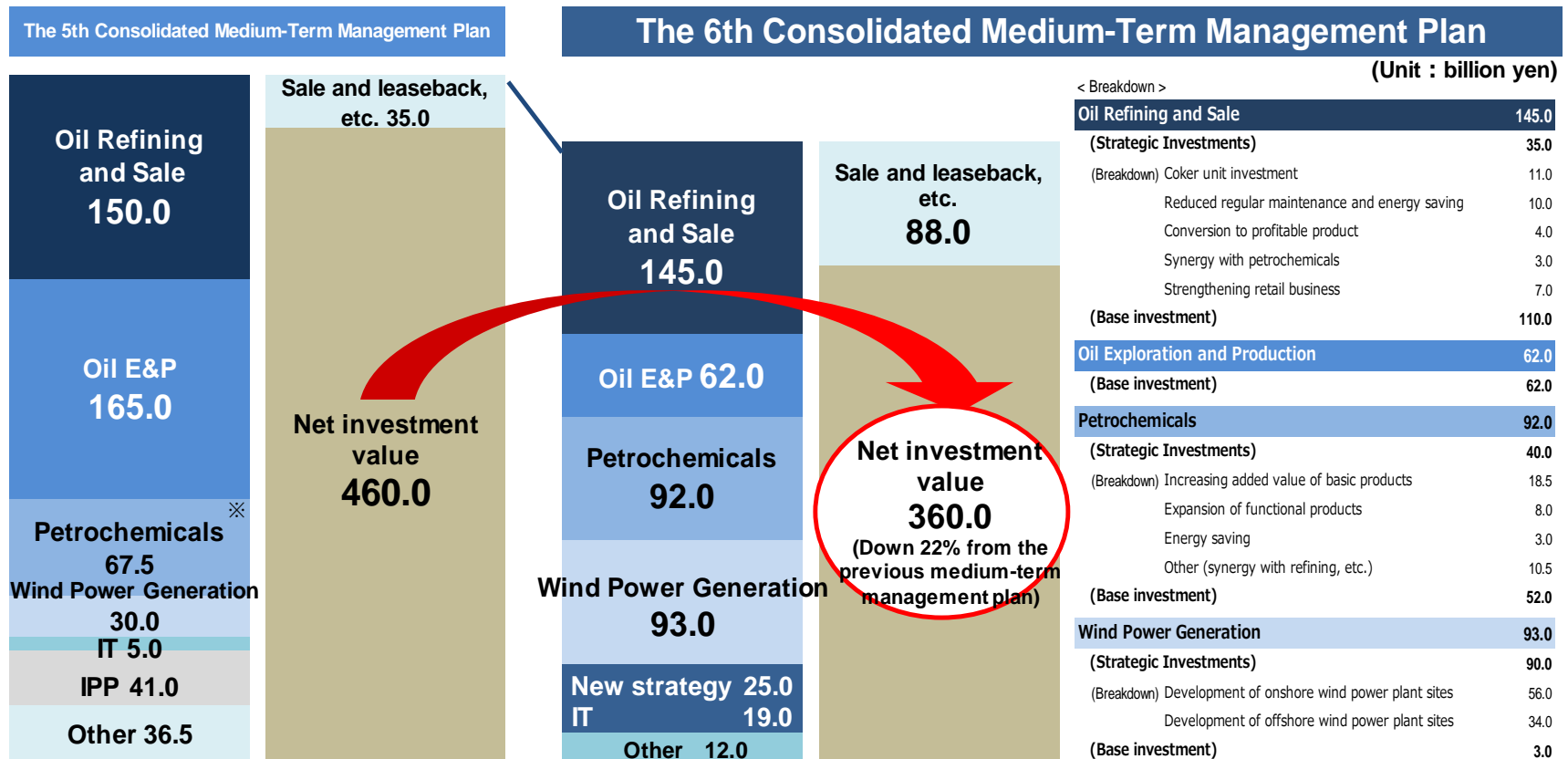
Incoming Cash	Outgoing Cash
<b>535.0</b>	<b>360.0</b>
Net profit <b>225.0</b> → Increase shareholders 'equity	Investment ※ <b>360.0</b>
Depreciation etc. <b>310.0</b>	Free Cash Flow <b>175.0</b> → Decrease in debt with interest → Dividend

## Shareholder Return Policy

- ✓ Recognize shareholder returns as an important business task
- ✓ With the principle of stable dividend payment, aim for further returns to shareholders while considering the balance between achievement toward management goals and growth investment.

\*Strategic investment is net amount reflecting operating lease etc.

- ✓ **Strategic investment: Actively use approx. 40% of the total investment for an increase in competitiveness and growth investment.**
  - ➔ **Oil refining and sale** : Increase delayed coker unit capacity.
  - ➔ **Petrochemical** : Increase added value of basic products.
  - ➔ **Wind power generation** : Develop offshore wind power sites.
  - ➔ **New businesses** : Discover businesses that will lead the next growth stage.
- ✓ **Reduce cash-out using sale and leaseback, etc.**



\* Calculated by assuming that Maruzen Petrochemical had become a consolidated subsidiary at the beginning of the 5th medium-term plan.



# Overview of Consolidated Medium-Term CSR Management Plan

## ~ Contribution to Achievement of SDGs ~

- ✓ Develop a medium-term CSR management plan for activities that contribute to the sustainable development of both society and the Cosmo Energy Group.
- ✓ Promote activities based on the perspective of ESG throughout the supply chains, including group companies and business partners.

### **E** Promoting environmental measures



### **S** Enhancing human rights & social contribution measures



- ✓ **Reduction of greenhouse gas emissions**  
【2030 targets】  
CO2 emissions Down26% [from FY2013]  
(Down 2 million tons)  
【2022 targets】  
CO2 emissions Down16% [from FY2013]  
(Down 1.2 million tons)
- ✓ Reduction of pollutants
- ✓ Resource circulation

- ✓ Occupational safety & health
- ✓ Diversity
- ✓ Human resources development
- ✓ Customer satisfaction
  - ➔Improve service level
  - ➔Enhancing Eco Card Fund initiatives

### **G** Ensuring safety measures



### Strengthening corporate governance structure



- ✓ Safe operations and stable supply
  - ➔Preventing work-related accidents, Preventing major accidents
- ✓ Improvement of quality assurance system

- ✓ Thorough implementation of risk management and compliance system
- ✓ Development of CSR procurement policy
- ✓ Responses to ESG evaluation (improvement of information disclosure)
  - ➔ Improve ESG ratings

# Business Strategy

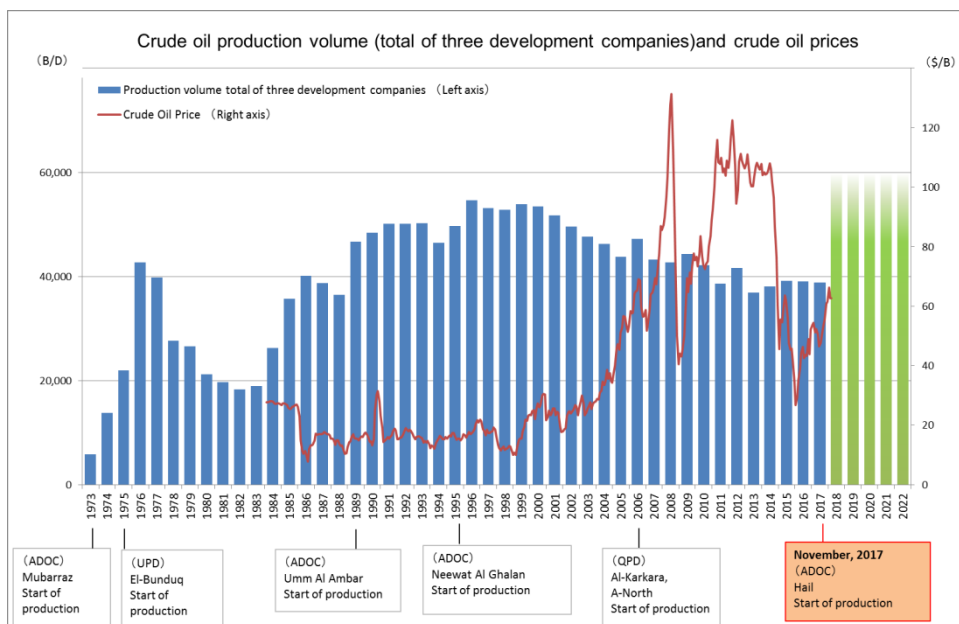
## Long-term business strategy based on strengths

- ✓ Strong relationships of trust built through stable production for around 50 years at the Abu Dhabi offshore oil field.
- ✓ In-house operation (operatorship)

➔ Seek added value projects utilizing the Company's strengths.

## Policies and measures in the 6th medium-term management plan

- ✓ Continue full production at the Hail Oil Field.
- ✓ Reduce operation cost (at least 30% per unit).
- ✓ Examine new investments for the next phase.



Value of improvement in FY2022 (from FY2017)  
**35.0 billion yen**

※1) ADOC : Abu Dhabi Oil Company, UPD : United Petroleum Development, QPD : Qatar Petroleum Development  
 ※2) Production of three development companies per year (monthly average of 1-12 each year)  
 ※3) Crude oil prices (Platt's Dubai crude) average monthly  
 ※4) The production volume of three development companies in fiscal 2018 is planned value

## Long-term environmental awareness and business strategy

### Environmental awareness

- ✓ A certain level of demand for petroleum products remains, despite a decline due to the increased use of EVs by consumers.
- ✓ Initiatives using IoT are increasingly active.

### Business strategy

- ✓ Shift from fuel oil to petrochemical materials.
- ✓ Promote IT conversion of refineries

## Policies in the 6th medium-term management plan

- ✓ Increase profitable products by increasing delayed coker unit capacity promoted by the IMO regulations and maintain high capacity utilization to establish refinery competitiveness exceeding the global standard.
- ✓ Grow the recipients of products and use alliances with other companies to increase competitiveness.
- ✓ Create synergy with the petrochemical business.

## Measures in the 6th medium-term management plan

(billion yen)

Activity Measures		Value of Improvement
1. Increase degradation capacity, etc.	Increase delayed coker unit capacity at Sakai Refinery, etc. Use of Chiba Refinery pipeline ➔Focus on profitable products	24.0
2. Increase capacity utilization	Reduce unplanned suspensions Reduce regular maintenance periods at refineries	6.0
3. Achieve synergy with the petrochemical business.	Use of unused distillates ➔Increase business opportunities	3.0
4. Cost reduction	Energy-efficient operation of facilities Strategic purchasing, rationalized distribution	6.0

Value of improvement in FY2022  
(from FY2017)

**39.0 billion yen**

## Long-term business strategy

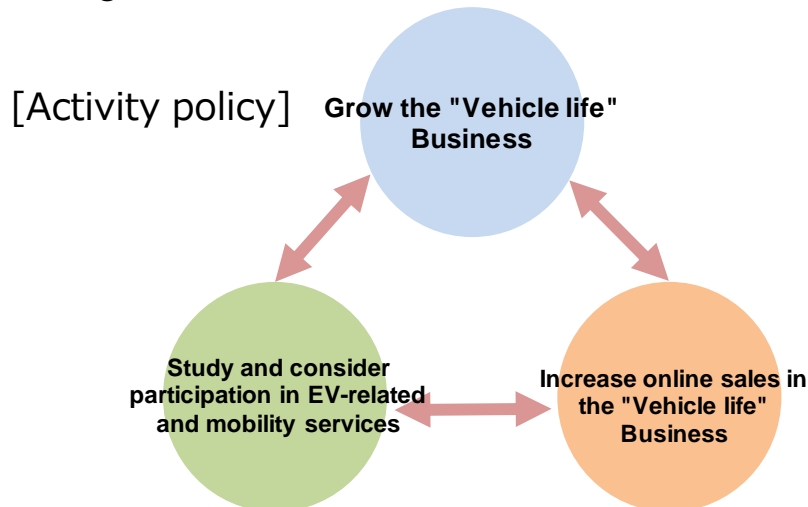
- ✓ Acquire business areas based on a business model reform corresponding to a shift to EVs and changes in consumers’ use of automobiles.
- ✓ Acquire total competitiveness together with oil refining business

## Policies in the 6th medium-term management plan

- ✓ Determine new business models that take the long-term business environment into consideration while seeking the growth of the “Vehicle life” Business

## Measures in the 6th medium-term management plan

- ✓ Increase sales of lease and car care products.
  - ➔ Collaborate with other companies in other industries to achieve total support (from obtaining a driver’s license to the sale of a car) for car owners.
  - ➔ Develop new products and provide services to meet customer demand.
  - ➔ Increase online sales.



Value of improvement in FY2022 (from FY2017)

**3.0 billion yen**

## Long-term environmental awareness and business strategy

### Environmental awareness

- ✓ International markets are growing based on an increase in the global population.
- ✓ Supply is increasing due to the construction of new highly competitive ethane crackers in North America and Naphtha crackers in China.
- ✓ A production shift from oil refining is possible.

### Business strategy

- ✓ Maximize the use of the competitive advantage in ethylene and Paraxylene production.
- ✓ Shift from petroleum fuel oil to petrochemical materials.

## Policies in the 6th medium-term management plan

- ✓ Enjoy and improve the synergy of oil refining and petrochemicals (exploitation of unused distillates, etc.).
- ✓ Increase the competitiveness of basic products and grow a new business of specialty products that are not vulnerable to environmental changes.

## Measures in the 6th medium-term management plan

Improve profitability in the functional product area.

- ➔ Start hydrogenated petroleum resin business with Arakawa Chemical Industries.

Investment in increasing competitiveness for the future

- ➔ Increase the added value of basic chemical products.
- ➔ Increase and add new capabilities of specialty products.

**Value of improvement in FY2022  
(from FY2017)**

**1.0 billion yen**

**Cash Flow\*8.0  
billion yen**

※Cash Flow: Ordinary profit + Increase in depreciation



# Business Strategy:

## Wind power generation Business (6th Medium-Term Management Plan) 55

### Policies in the 6th medium-term management plan

#### Onshore

- ✓ Steadily implement development projects that can secure the FIT unit price of 22 yen/kWh and aim to reach 500,000 kW at an early stage.
- ✓ Seek projects that contribute to new development.

#### Offshore

- ✓ As the land for power plant development is increasingly filled, use O&M\* skills, the company's conventional strengths, and enter the offshore wind power at an early stage.  
(\* operation and maintenance)
- ➔ Invest in this business to make it the foundation for the next growth stage.

### Measures in the 6th medium-term management plan

- ✓ Reach a 500,000 kW at an early stage.
  - ➔ Development of Himekami (18,000 kW) in Iwate Prefecture, Watarai 2nd phase (22,000 kW) in Mie prefecture, etc.
  - ➔ Expect to achieve power generation capacity of 400,000 kW at the end of FY2022
- ✓ Development of a business plan, environmental assessment, construction, etc. to launch the operation of an offshore wind power plants.

Value of improvement in FY2022  
(from FY2017)

**2.0 billion yen**

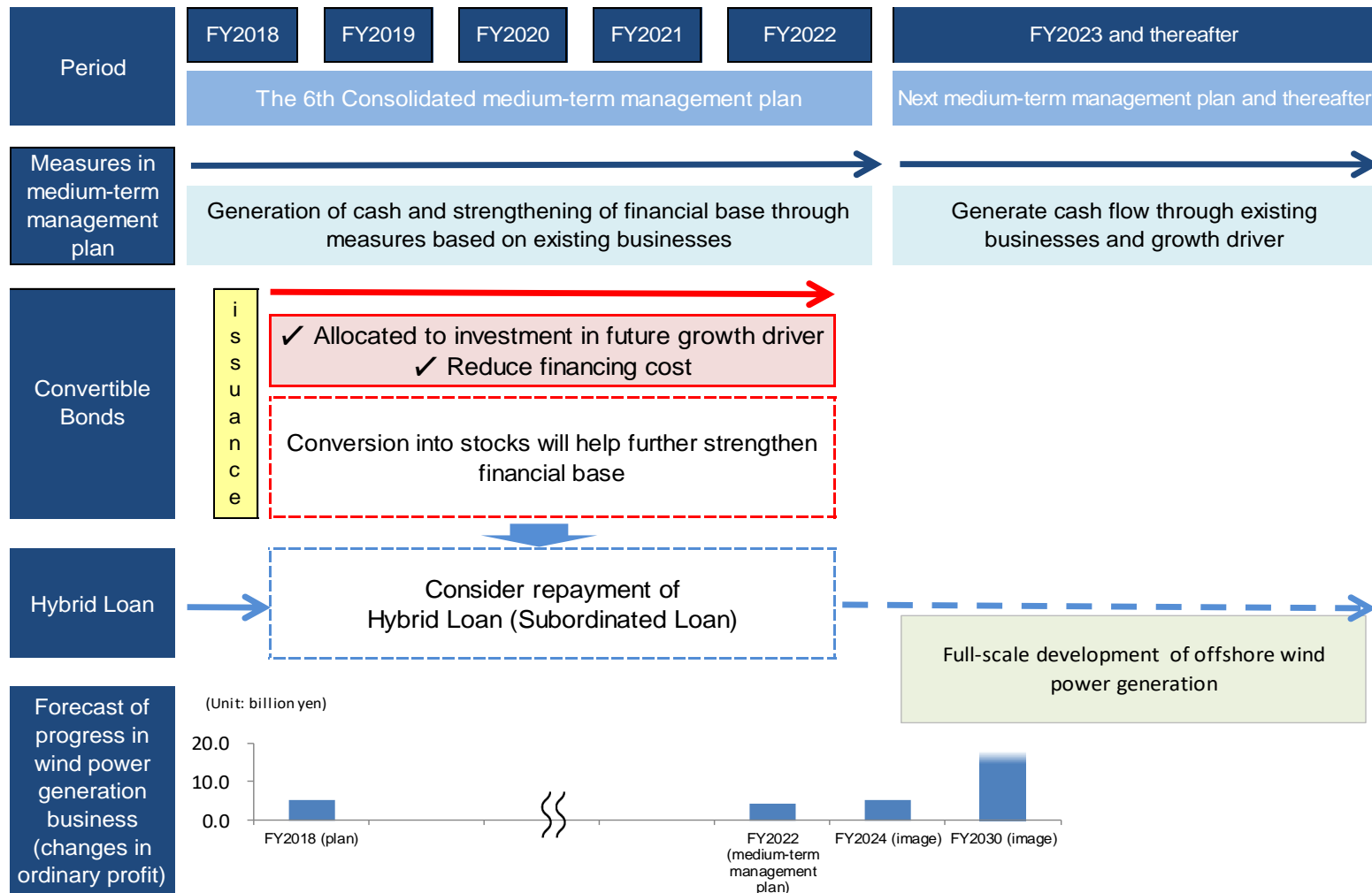


**Zero Coupon Convertible Bonds due 2022  
(being bonds with stock acquisition rights)  
(Announced on December 20,2018)**

Item	Overview
Title	The ¥60,000,000,000 Zero Coupon Convertible Bonds due 2022 (being bonds with stock acquisition rights)
Total amount of bonds	¥60,000,000,000
Bond interest rate	Interest will not be attached to these bonds.
Date of payment and issuance	December 5,2018
Maturity date	December 5,2022
Benefits	<ol style="list-style-type: none"> <li>1 Financing cost can be reduced by issuing bonds without attaching interest (zero coupon).</li> <li>2 The bonds will be offered primarily to investors in overseas markets, which, therefore, will contribute to the diversification of financing methods and can be expected to increase the flexibility of the company's future financing strategies.</li> <li>3 A rider will be attached to promote the conversion into stocks, and converted stocks will contribute to further strengthening and improvement of the company's financial base in the future.</li> <li>4 Since the conversion price will be set to exceed the bonds' market value, the bonds are expected to be converted into stocks mainly when shareholder value grows, such as a future increase in stock price, which will help control the dilution of per-share value resulting from the conversion.</li> </ol>
Uses of funds	<ol style="list-style-type: none"> <li>1 Allocate approx. 11 billion yen by March 2021 as funds for investment and loans for a subsidiary in petrochemical business in order to, increase competitiveness through means such as reduction of maintenance costs, and expansion of high-value-added products.</li> <li>2 Allocate approx. 49 billion yen by March 2021 as funds for investment and loans for a subsidiary in the wind power generation business in order to construct onshore and offshore wind power plants.</li> </ol>

# Through financing by issuing convertible bonds, planning to further strengthen the company's financial base for the Next Medium-Term Management Plan and thereafter 58

- ✓ Secure funds for investment and loans to strengthen the “New” part of the growth driver, “Oil & New,” for the future.
- ✓ For the time being, increase capital by accumulating profit through the execution of the current medium-term management plan.



1. The conventional policy will not change for the cash balance for the entire period of medium-term management plan.
2. Therefore, the issuing of convertible bonds this time means a change in financing method within cash flow from financing activities.
3. The company does not intend to increase interest-bearing debt from the conventional plan.

## Cash balance and use of funds (FY2018 - FY2022)

(Unit: billion yen)

(1) Cash flow from operating activities	535.0
(2) Cash flow from investing activities	-360.0
(3) Free cash flow (1) + (2)	175.0
(4) Cash flow from financing activities	-175.0

✓ No change from medium-term management plan

✓ Of the investment made in FY2019 and FY2020, 60 billion yen financed through CB is allocated to petrochemicals and wind power generation businesses as a major change in the business portfolio.

(Breakdown of cash flow from financing activities)

Repayment of debts	-XXX.X
Borrowing	+XXX.X
Convertible bonds	+60.0

Partial change

Dividends -XX.X

## Disclaimer

### FORWARD-LOOKING STATEMENTS

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