

Cosmo Energy Holdings Co., Ltd. Presentation on Results for Second Quarter of Fiscal 2018

November 8, 2018

2Q FY2018 Review / Policy for 2nd Half of FY2018	P.2-4
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Although affected by regular maintenance at a refinery and a petrochemical plant, profitability increased with secured an appropriate margin, the expansion of the crude oil production of the Hail Oil Field. As a result, each of 2Q ordinary profit ,2Q ordinary profit excluding the impact of inventory valuation and 2Q Net profit renewed a record high.

[Petroleum business]

- ✓ While proper margin was secured, regular maintenance at a refinery and partial trouble of equipment affected.
⇒ Ordinary profit excluding the impact of inventory valuation was ¥ 12.6billion.
(down ¥7.7 billion year on year).

[Petrochemical business]

- ✓ Although enjoying a strong market, the sales volume decreased due to the impact of the regular maintenance at a plant .
⇒ Ordinary profit was ¥12.0 billion (down ¥4.7 billion year on year).

[Oil exploration and production business]

- ✓ Although there was an influence of ESP pumps trouble etc. in the existing oil field(Except for Hail), as the price of crude oil rose, the Hail Oil Field has been continuing full production since January 2018.
⇒ Ordinary profit was ¥28.5 billion (up ¥19.5 billion year on year).

[Key Points in Financial Results]

- ✓ Chiefly thanks to the higher earnings of the oil exploration and production business, Consolidated ordinary profit reached ¥78.7 billion (2Q record high profit), an improvement of ¥35.3 billion year on year.
Consolidated ordinary profit excluding the impact of inventory valuation reached ¥56.5 billion (2Q record high profit), an improvement of ¥7.2 billion year on year.
Net profit of 2Q reached ¥40.4 billion (2Q record high profit), an improvement of ¥18.0 billion year on year.

Growing our earnings power due to increasing the competitiveness of our petroleum business by pursuing the high level of operating ratio at refineries and adding production volumes in the Oil Exploration and Production business.

[Petroleum business]

- ✓ Maintain an appropriate margin and raise competitiveness by pursuing the high level of operating ratio at refineries.
- ✓ Further increase our earnings power through alliances with refineries of other companies, etc.

[Petrochemical business]

- ✓ Full operation of highly competitive ethylene production equipment.

[Oil exploration and production business]

- ✓ Increase earnings by maintaining maximum production at the Hail Oil Field.

[Wind Power Generation]

- ✓ Promote the development of the Wind farms(Watarai 2nd phase and Himekami) for the start of operation in FY2019. (Please refer to P.39)

Revision of earnings forecast

- ✓ The full-year forecast has been revised, mainly taking into account the actual results for the 1st half.
- ✓ In the second half, Dubai crude oil price at \$75/bbl and the Yen-Dollar exchange rate at ¥110/\$ in view of the trend.
- ✓ On a full-year basis, we expect ¥133.0 billion in consolidated ordinary income excluding the impact of inventory valuation(new record), and ¥83.0 billion in net profit(new record).

[Reference] Precondition

	First half (Result)	Second half (Plan)	Full year (Plan)	Previous Announcement full year plan and second half plan
Crude oil (Dubai) \$/B	73	75	74	65
JPY/USD exchange rate ¥/\$	110	110	110	105

Dividend policy

- ✓ Although the full-year earnings forecast will exceed the announcement on May 2018, we plan to pay a dividend of 50 yen per share in comprehensive consideration of the Group's financial position, and investment strategy etc.

Results for Second Quarter of FY2018

[2Q FY2018 Results]

Consolidated Income Statements– Changes from 2Q FY2017

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Unit: billion yen

No.	Item	FY2018 (Apr.-Sep.2018)	FY2017 (Apr.-Sep.2017)	Changes	(Rate of change)	(Ref) Revised Forecast FY2018
1	Net sales	1,333.5	1,134.3	199.2	+18%	2,880.0
2	Operating profit	79.1	38.1	41.0	+107%	152.0
3	Non-operating income/expenses, net	-0.5	5.3	-5.8		5.0
4	Ordinary profit	78.7	43.4	35.3	+81%	157.0
5	Extraordinary income/losses, net	-1.3	-2.2	0.9		-1.0
6	Income taxes	28.8	11.8	17.0		54.5
7	Profit attributable to non- controlling interests	8.1	6.9	1.2		18.5
8	Profit attributable to owners of parent	40.4	22.4	18.0	+80%	83.0
9	Impact of inventory valuation	22.2	-5.9	28.1		24.0
10	Ordinary profit excluding the impact of inventory valuation	56.5	49.3	7.2		133.0
11	Dubai crude oil price (USD/B) (Apr.-Sep.)	73	50	23		74
12	JPY/USD exchange rate (yen/USD)(Apr.-Sep.)	110	111	-1		110
【Reference】						
13	Dubai crude oil price (USD/B) (Jan.-Jun.)	68	51	17		71
14	JPY/USD exchange rate (yen/USD)(Jan.-Jun.)	109	112	-3		110

**[2Q FY2018 Results] Outline of Consolidated Ordinary Profit by business segment
— Changes from 2QFY2017**

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Unit : billion yen

No	FY2018 (Apr.-Sep.2018)		FY2017 (Apr.-Sep.2017)		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		78.7	56.5	43.4	49.3	35.3	7.2
2	(Each segment)	Petroleum business	34.8	12.6	14.4	20.3	20.4	-7.7
3		Petrochemical business	12.0		16.7		-4.7	
4		Oil E&P business (*1)	28.5		9.0		19.5	
5		Other (*2)	3.4		3.3		0.1	

(*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 FY2018 Results] Consolidated Ordinary Profit (Excluding the impact of inventory valuation)

- Analysis of Changes from 2Q FY2017

**Key
variable
factors**

Petroleum business : Decrease in profit because that regular maintenance at a refinery and partial trouble of equipment affected in spite of secured proper margin.

Petrochemical business : Decline in profit due to the decrease of the sales volume affected by the impact of the regular maintenance of a plant.

Oil E&P business : Profit growth because that crude oil price rose and production volume increased thanks to the commencement of full production at the Hail Oil Field in spite of the ESP pumps trouble in the other existing oil fields.

Category	Change (billion yen)
2Q FY2017 Results	49.3
Margins & Sales volume	+7.2
Expense, Other	-14.9
Price	-2.3
Volume	-4.6
Expense, Other	+2.2
Price	+8.3
Volume	+17.4
Expense, Other	-6.2
Net Change	+0.1
2Q FY2018 Results	56.5

2QFY2017 Results	2QFY2018 Results				Ordinary profit exc. the impact of inventory valuation
Ordinary profit exc. the impact of inventory valuation	Petroleum business	Petrochemical business	Oil E&P business	Other (Wind Power Generation)	Ordinary profit exc. the impact of inventory valuation
49.3	20.3	16.7	9.0	3.3	
	12.6	12.0	28.5	3.4	56.5

Consolidated Cash Flows

Unit: billion yen

No		FY 2018 (Apr.-Sep.2018)	FY 2017 (Apr.-Sep.2017)
1	Cash flows from operating activities	14.1	58.0
2	Cash flows from investing activities	-42.0	-52.8
3	Free cash flow (1+2)	-27.9	5.2
4	Cash flows from financing activities	30.4	12.0
5	Cash and cash equivalents at end of the period	57.9	52.8

Consolidated Balance Sheets

Unit: billion yen

No		FY2018 (As of Sep. 30, '18)	FY2017 (As of Mar. 31, '18)	Changes
1	Total Assets	1,796.8	1,688.3	108.5
2	Net assets	395.6	356.1	39.5
3	Net worth	275.0	238.7	36.3
4	Net worth ratio	15.3%	14.1%	Up 1.2 points
5	Net interest-bearing debt *1	672.0	635.8	36.2
6	Net Debt Equity Ratio (times) (after partially accounting for Hybrid Loan) *2	2.1	2.3	Down 0.2 points

*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

[2QFY2018 Results] Highlights of Consolidated Capital Expenditures 10

Capital Expenditures, Depreciation, etc.

Unit: billion yen

No.		2QFY2018 Results	Change from 2QFY2017
1	Capital expenditures	36.9	-14.3
2	Depreciation expense amount, etc	25.2	5.5

Capital Expenditures by Business Segment

No.		2QFY2018 Results	2QFY2017 Results	Change from 2QFY2017
1	Petroleum	13.0	10.8	2.2
2	Petrochemical	9.9	2.0	7.9
3	Oil E&P	11.2	25.4	-14.2
4	Other	3.8	14.2	-10.4
5	Adjustment	-1.0	-1.2	0.2
6	Total	36.9	51.2	-14.3

(Reference)

Unit: billion yen

No.		FY2018 Forecast	FY2017 Results	Changes
1	Petroleum	37.6	30.5	7.1
2	Petrochemical	17.1	6.0	11.1
3	Oil E&P	27.4	49.9	-22.5
4	Other	12.6	22.3	-9.7
5	Adjustment	-2.0	0.4	-2.4
6	Total	92.8	109.1	-16.3

Forecast for FY2018 Performance

[FY2018 Full-Year Forecast] Highlights of Consolidated Business Outlook (Changes from the Previous Announcement)

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Unit : billion yen

No		FY2018 Forecast		FY2018 Previous Announcement		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	157.0	133.0	121.0		36.0	12.0	
2	(Each segment)	Petroleum business	61.0	37.0	32.0		29.0	5.0
3		Petrochemical business	24.0		22.0		2.0	
4		Oil E&P business (*1)	62.0		57.0		5.0	
5		Other (*2)	10.0		10.0		-	

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

(*2) Including consolidated adjustment

No.		FY2018 Forecast	FY2018 Previous Announcement	Changes
6	Profit attributable to owners of parent	83.0	57.0	26.0
7	Dividend per Share (Plan) (yen)	¥50	¥50	-

■ Precondition

No.		FY2018 Forecast	FY2018 Previous Announcement	Changes
8	Dubai crude oil price (USD/B) (Apr.-Mar.)	74	65	9
9	JPY/USD exchange rate (Apr.-Mar.)	110	105	5
10	Dubai crude oil price (USD/B) (Jan.-Dec.)	71	65	6
11	JPY/USD exchange rate (Jan.-Dec.)	110	106	4

■ Sensitivity

No.		Item	Crude oil (Dubai)	JPY/USD exchange rate
13	Petroleum Business	Inventory Impact	2.1 billion yen	1.3 billion yen
14		Refinery fuel cost etc.	-0.3 billion yen	-0.2 billion yen
15		Total	1.8 billion yen	1.1 billion yen
16	Oil E&P Business		+0.4 billion yen	+0.1 billion yen

12	Spread between Ethylene-Naphtha (\$/ton) (Apr.-Mar.)	625	650	△ 25
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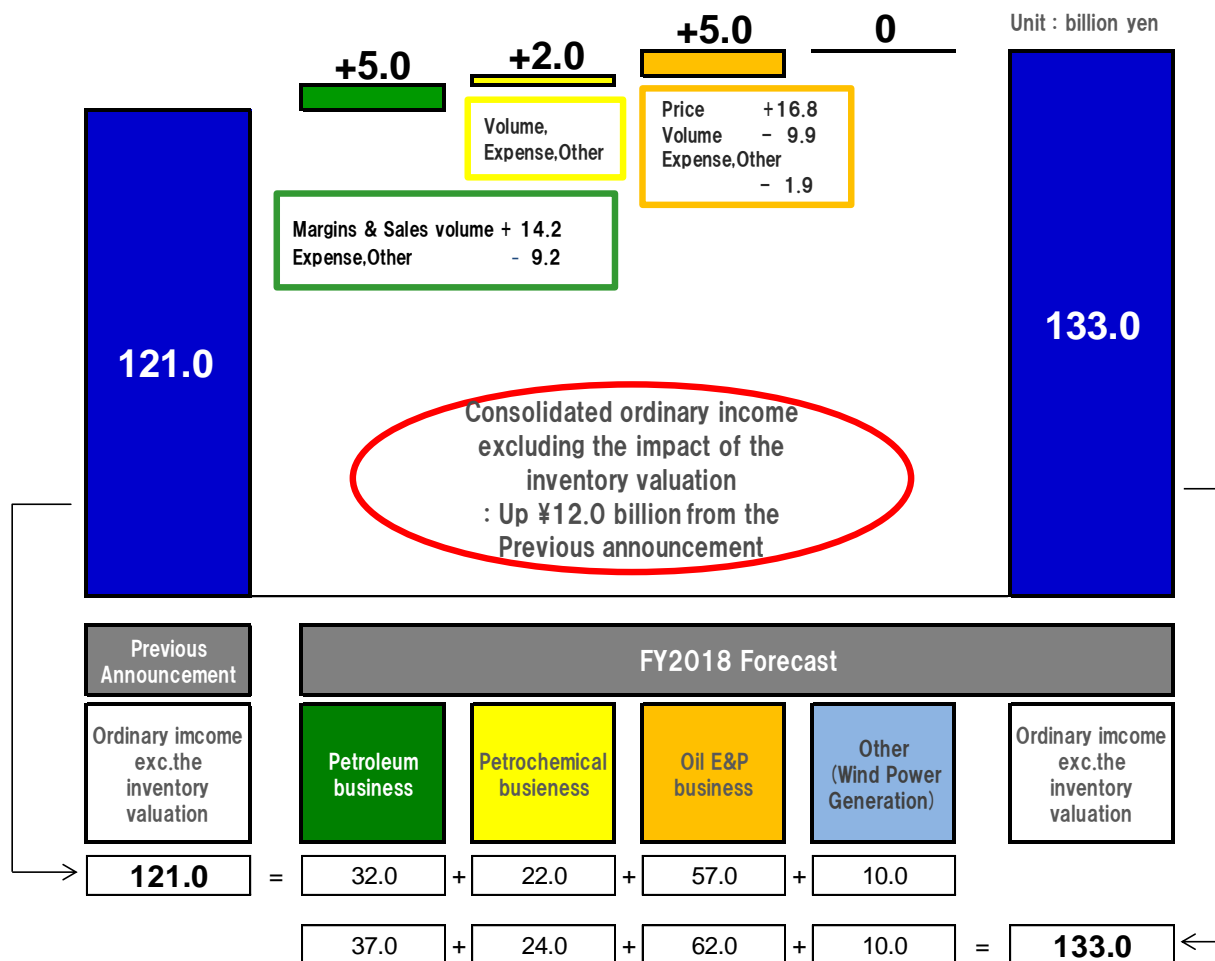
* Figures above refer to impacts by crude oil price (USD 1/bbl) and yen-dollar exchange rate (¥1/USD) fluctuations.

* A six-month period of Oct.2018 to Mar.2019 adopted for sensitivity figure estimation for the petroleum business and a three-month period of Oct.2018-Dec.2018 for the Oil E&P business.

[FY2018 Full-Year Forecast] Consolidated Ordinary Income (Excluding the impact of inventory valuation)
 - Analysis of Changes from the Previous Announcement

Key variable factors

Petroleum business : Increase in profit due to the proper margin even though partial trouble of equipment and the allowance of the cost for future regular maintenance at a refinery.
 Petrochemical business : Higher profit expected due to cost reductions such as repair expenses
 Oil E&P business : Higher profit expected due to a rise in crude oil price despite a fall in production volume.



Supplementary Information

P.15-23 [2Q FY2018 Results] Supplementary Information

- Sales Volume, CDU Operating Ratios (2Q FY2018 results/FY2018 Forecast)
- Crude Oil Production Volume, Crude Reserves Estimate (Proved and Probable)
- Results by Business Segment - Changes from 2Q FY2017
- Main data of each business
- Historical Changes in Dubai Crude Oil Price
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- Highlights of Consolidated Business Outlook (Changes from FY2017), Precondition
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- Oil E&P Business , Petroleum Business, Petrochemical Business, Wind Power Generation Business

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

**Supplementary Information of
2Q FY2018 Results**

[2Q FY2018 Results / FY2018 Forecast] Sales Volume, CDU Operating Ratios 16

Unit: thousand KL

No.		2QFY2018 Results	2QFY2017 Results	Changes	FY2018 Forecast	FY2018 forecast changes from FY2017	FY2018 forecast (Previous Announcement)
1	Selling volume in Japan						
	Gasoline	2,775	2,797	99.2%	5,536	99.2%	5,504
2	Kerosene	379	386	98.2%	1,714	95.9%	1,701
3	Diesel fuel	2,183	2,112	103.4%	4,295	100.3%	4,127
4	Heavy fuel oil A	598	635	94.0%	1,359	92.4%	1,323
5	Sub-Total	5,935	5,930	100.1%	12,904	98.4%	12,655
6	Naphtha	2,728	3,030	90.1%	6,154	101.5%	6,437
7	Jet fuel	221	220	100.8%	478	104.3%	497
8	Heavy fuel oil C	513	584	87.9%	1,017	81.6%	1,012
9	inc. Heavy fuel oil C for electric power	96	158	60.8%	210	56.0%	210
10	Total	9,398	9,763	96.3%	20,553	98.4%	20,600
11	Export volume						
	Middle distillates (Jet, Kerosene/Diesel fuel)	-	437	-	500	60.6%	950
12	Other	1,536	1,659	92.5%	3,239	96.2%	3,303
13	Sub-Total	1,536	2,097	73.2%	3,739	89.2%	4,253
14	Total	10,934	11,860	92.2%	24,292	96.9%	24,854

No.		2QFY2018 Results	2QFY2017 Results	Changes
1	CDU operating ratio			
	(Calendar Day basis) *1	81.4%	94.7%	-13.3%
2	(Streaming Day basis) *1,2	95.3%	99.7%	-4.4%

*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 FY2018 Results] Crude Oil Production Volume, Crude Reserves Estimate (Proved and Probable)

[1] Crude oil production volume			
	2QFY2018 Results	2QFY2017 Results	Changes
Cosmo Energy Exploration & Production Co., Ltd. (B/D)	52,425	38,100	14,325 137.6%

*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 45.0% stake in United Petroleum Development Co., Ltd.

(As of Dec 31, 2017)

[2] Crude Reserves Estimate (working interest base) (*1)		
	mmbbls	
Total Proved (*2) and Probable Reserves (*3)	147.3	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 22 years	Note: The daily average crude production based on working interest reached 19 thousands bpd for FY2017 (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 FY2018 Results] Results by Business Segment – Changes from 2QFY2017

2Q FY2018 Results – Changes from 2Q FY2017

Unit: billion yen

No.		Net Sales		Operating Profit		Ordinary Profit		Ordinary Profit (excluding the impact of inventory valuation)	
			Changes from 2QFY2017		Changes from 2QFY2017		Changes from 2QFY2017		Changes from 2QFY2017
1	Petroleum business	1,219.9	187.2	37.0	23.6	34.8	20.4	12.6	-7.7
2	Petrochemical business	223.4	11.9	9.1	-3.7	12.0	-4.7	12.0	-4.7
3	Oil E&P business	53.6	28.5	28.9	21.1	28.5	19.5	28.5	19.5
4	Other	31.5	12.7	2.6	1.4	2.5	1.6	2.5	1.6
5	Adjustment	-194.9	-41.1	1.5	-1.4	0.9	-1.5	0.9	-1.5
6	Total	1,333.5	199.2	79.1	41.0	78.7	35.3	56.5	7.2

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., EcoPower Co.,Ltd, etc.

1. Petroleum business

(1) Refinery Operating Ratio

	FY2013	FY2014	FY2015	FY2016	FY2017	2Q FY2018
CDU operating ratio (Calendar Day basis) *1	69.5%	84.0%	83.2%	88.3%	94.1%	81.4%

(2) Number of SSs by Operator Type

	FY2013	FY2014	FY2015	FY2016	FY2017	2Q FY2018
Subsidiary	899	881	920	895	885	862
Dealers	2,329	2,252	2,134	2,062	1,973	1,958
Total *2	3,228	3,133	3,054	2,957	2,858	2,820
Number of Self-Service SSs *2	1,011	1,031	1,036	1,038	1,034	1,037

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

	FY2013	FY2014	FY2015	FY2016	FY2017	2Q FY2018
Cosmo The Card (million cards) *2	4.20	4.31	4.39	4.44	4.44	4.41
Auto lease (Units) *2	11,734	19,040	27,401	37,077	47,602	53,143

2. Oil E&P business

Crude oil production volume

	FY2013	FY2014	FY2015	FY2016	FY2017	2Q FY2018
Cosmo Energy E&P Co., Ltd. (B/D) *3	36,842	38,031	39,201	39,032	38,826	52,425

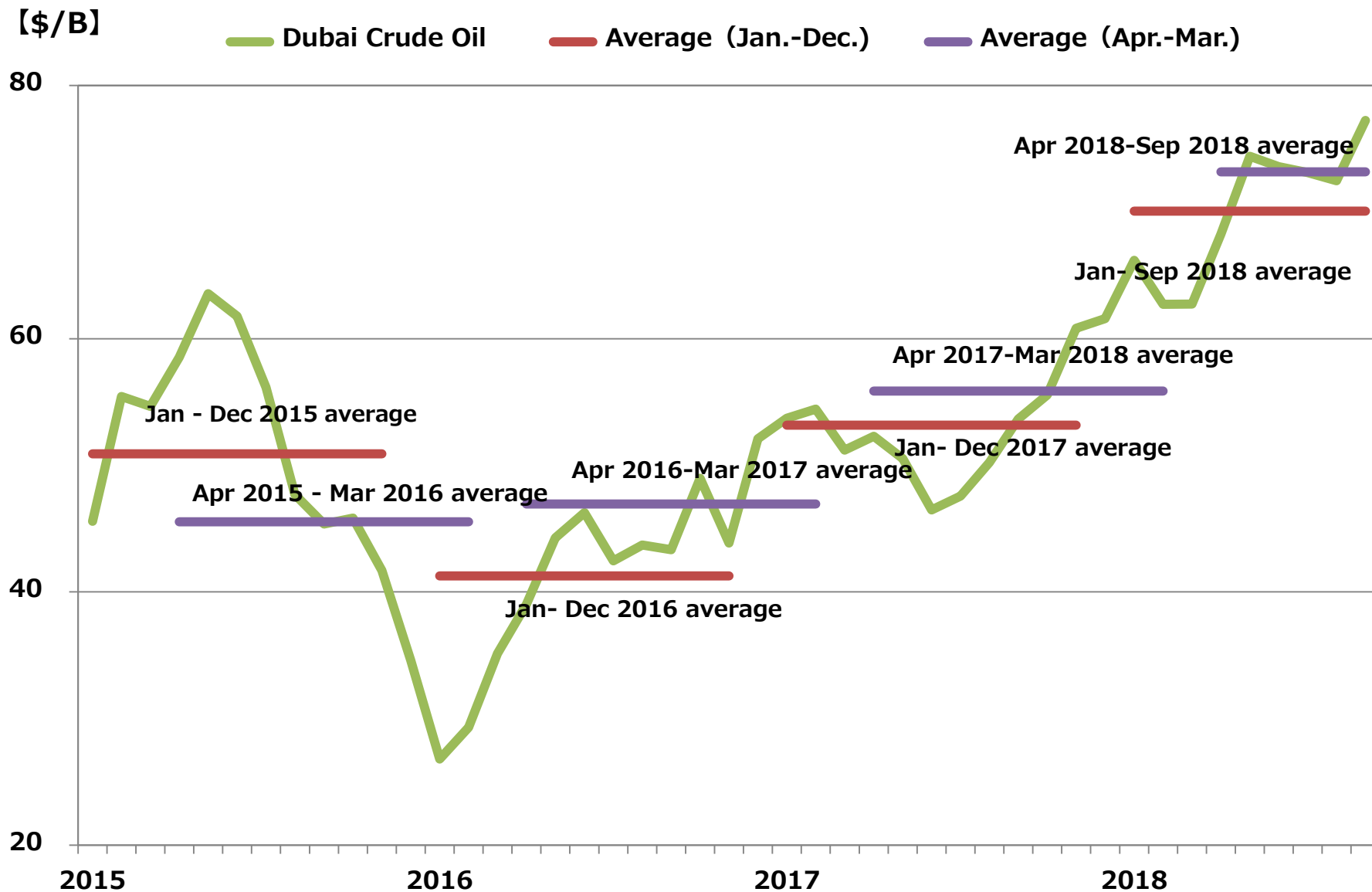
3. Wind power generation business

Wind power generation capacity (ten thousand kW)

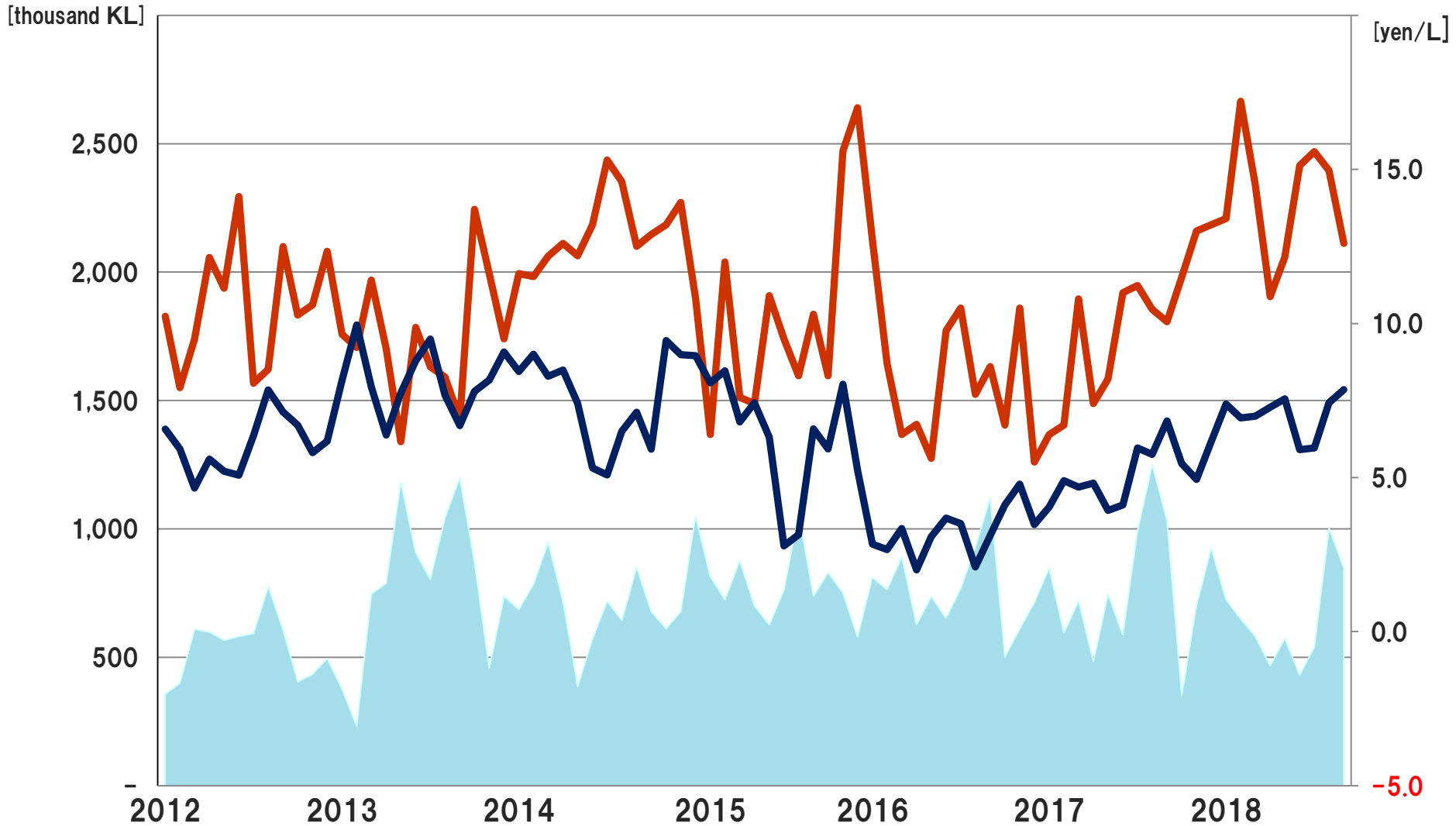
	FY2013	FY2014	FY2015	FY2016	FY2017	2Q FY2018
Power generation Capacity*2	14.6	18.3	18.4	21.1	22.7	22.7

*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

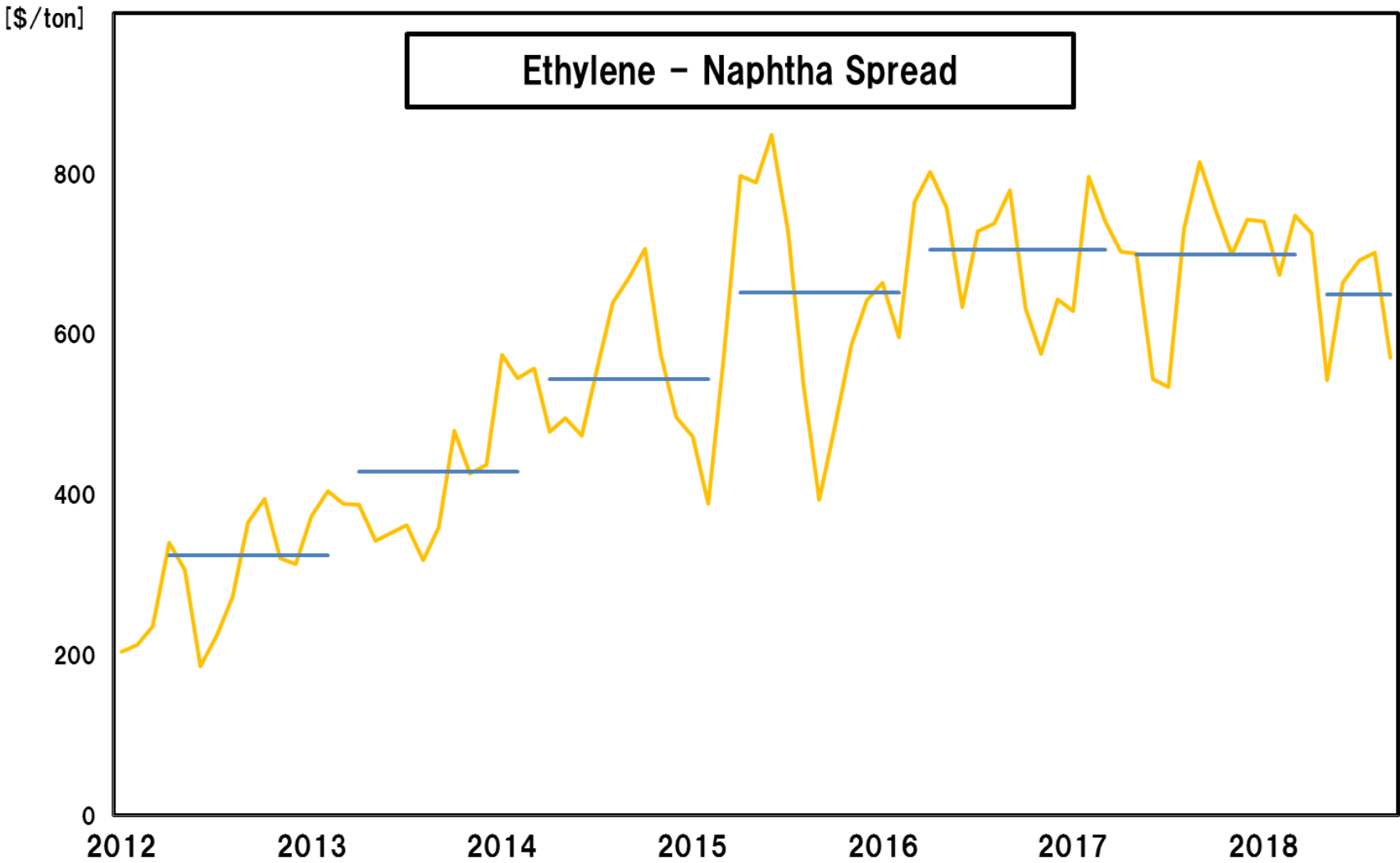
Historical Changes in Dubai Crude Oil Price



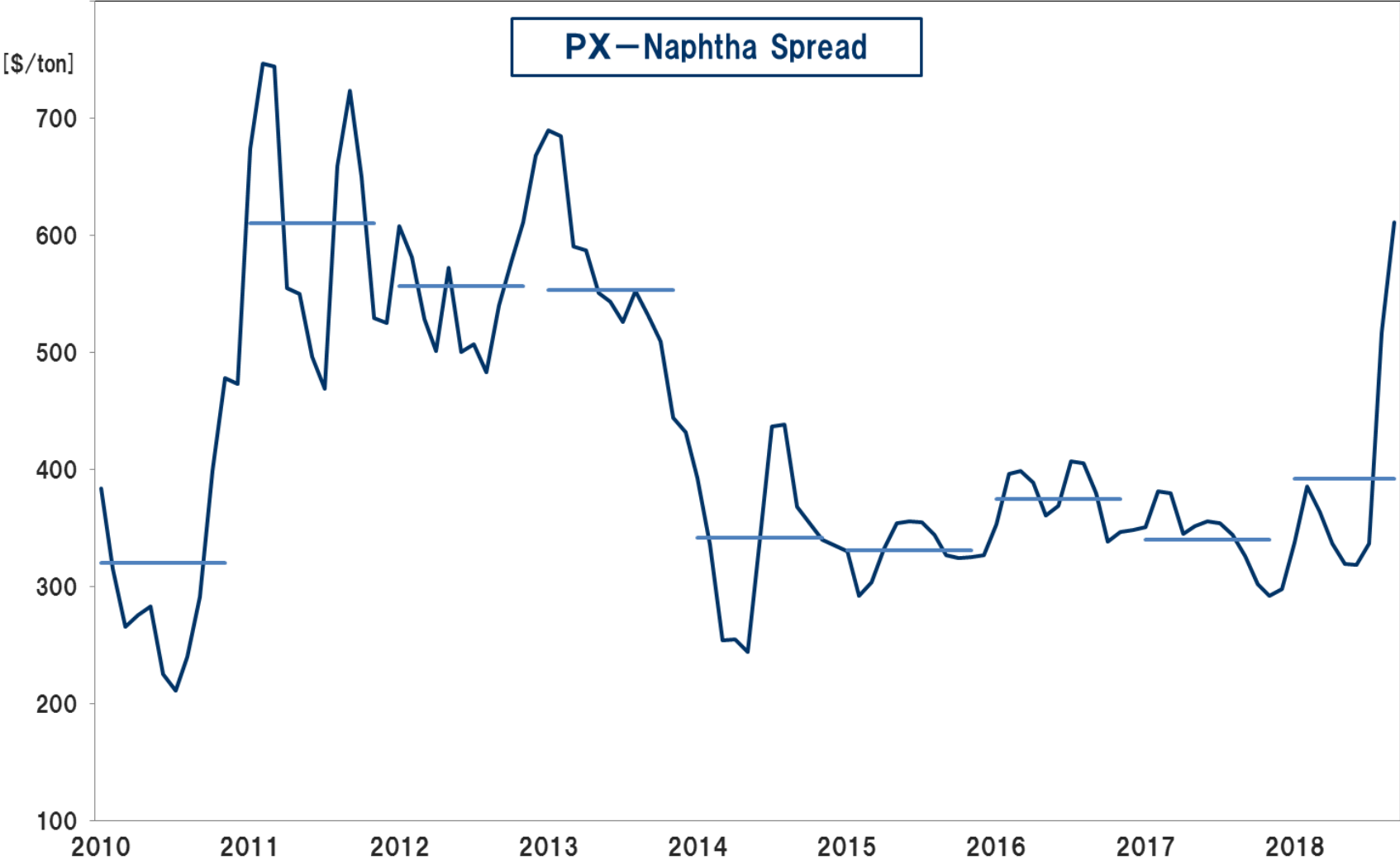
*Trend of crude oil price from January 2015 to September 2018



- 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).

**Supplementary information of
Forecast for FY2018 Performance**

[FY2018 Forecast] Highlights of Consolidated Business Outlook (Changes from FY2017) Precondition

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Unit : billion yen

No.		FY2018 Forecast		FY2017 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	157.0	133.0	116.9	95.9	40.1	37.1	
2	(Each segment)	Petroleum business	61.0	37.0	58.8	37.8	2.2	-0.8
3		Petrochemical business	24.0		30.4		-6.4	
4		Oil E&P business (*1)	62.0		18.3		43.7	
5		Other (*2)	10.0		9.4		0.6	

(*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.		FY2018 Forecast	FY2017 Results	Changes
6	Profit attributable to owners of parent	83.0	72.8	10.2
7	Dividend per Share (Plan)	¥50	¥50	-

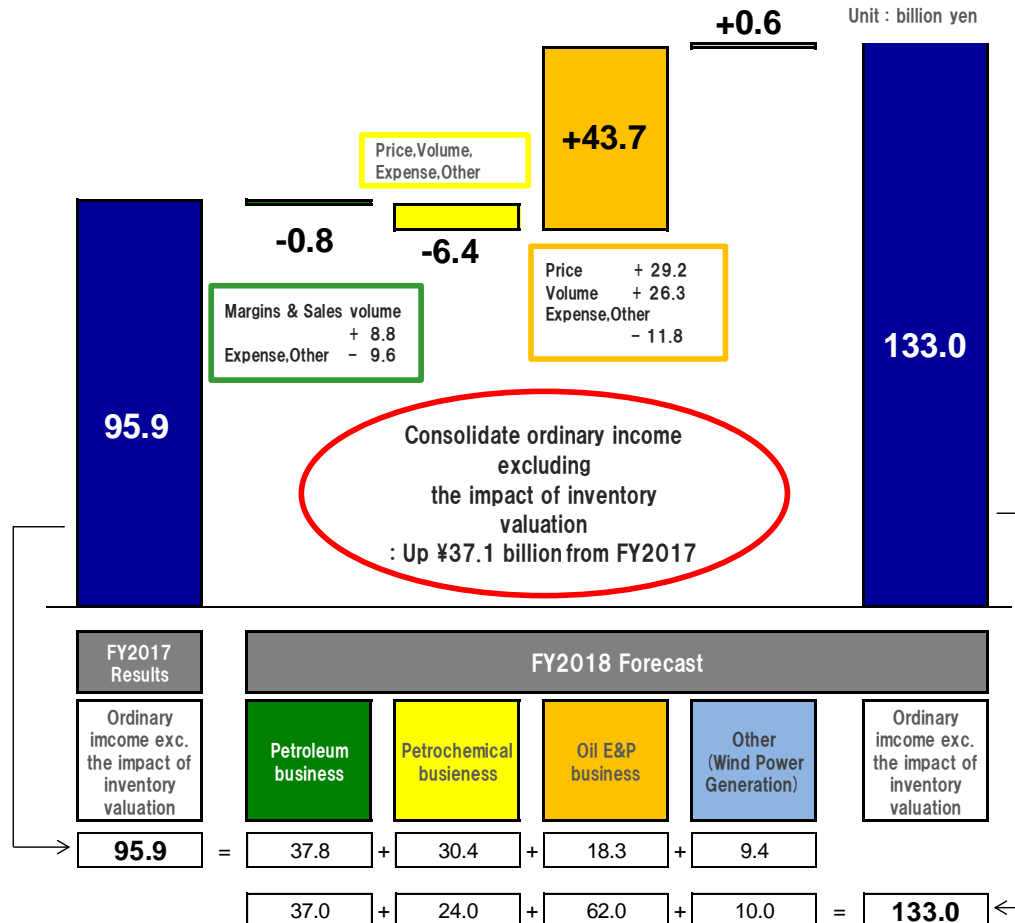
【Reference】Precondition

No.		FY2018 Forecast	FY2017 Results	Changes
8	Crude oil (Dubai) (\$/B) (Apr.-Mar.)	74	56	18
9	JPY/USD exchange rate (Apr.-Mar.)	110	111	-1
10	Crude oil (Dubai) (\$/B) (Jan.-Dec.)	71	53	18
11	JPY/USD exchange rate (Jan.-Dec.)	110	112	-2
12	Spread between Ethylene-Naphtha (\$/ton) (Apr.-Mar.)	625	696	-71

[FY2018 Forecast] Consolidated Ordinary profit (Excluding the impact of inventory valuation) - Analysis of Changes from FY2017

Key variable factors

- Petroleum business** :Decrease in profit because of effects by regular maintenance at refineries, partial trouble of equipment and the allowance of the future regular maintenance cost in spite of secured proper margin.
- Petrochemical business** :Lower profit expected due to sales volume decreases affected by the regular maintenance of a plant.
- Oil E&P business** :Higher profit expected because that crude oil price rose and production volume increased thanks to the commencement of full production at the Hail Oil Field.



[FY2018 Full-Year Forecast] Outlook by Business Segment Changes from the previous announcement, and Highlights of Consolidated Capital Expenditures

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FY2018 Outlook – Changes from the previous announcement

Unit: billion yen

No.		Net Sales		Operating Income		Ordinary Income		Ordinary Income (excluding the impact of inventory valuation)	
			Changes from the Previous Announcement		Changes from the Previous Announcement		Changes from the Previous Announcement		Changes from the Previous Announcement
1	Petroleum business	2,663.0	141.0	62.0	26.5	61.0	29.0	37.0	5.0
2	Petrochemical business	452.0	11.0	17.0	1.0	24.0	2.0	24.0	2.0
3	Oil E&P business	117.0	4.0	61.5	5.5	62.0	5.0	62.0	5.0
4	Other	61.0	0.0	6.5	1.5	6.0	1.5	6.0	1.5
5	Adjustment	-413.0	4.0	5.0	-0.5	4.0	-1.5	4.0	-1.5
6	Total	2,880.0	160.0	152.0	34.0	157.0	36.0	133.0	12.0

Capital Expenditures, Depreciation, etc.

Unit: billion yen

No.		FY2018 Forecast	Changes
1	Capital expenditures	92.8	-5.0
2	Depreciation expense amount, etc	55.6	-1.6

Capital expenditures by Business Segment

Unit: billion yen

No.		FY2018 Forecast	FY2018 Previous Announcement	Changes
1	Petroleum	37.6	34.0	3.6
2	Petrochemical	17.1	18.4	-1.3
3	Oil E&P	27.4	34.5	-7.1
4	Other	12.6	12.8	-0.2
5	Adjustment	-2.0	-2.0	0.0
6	Total	92.8	97.8	-5.0

FY2018 Outlook – Changes from FY2017

Unit: billion yen

No.		Net Sales		Operating Income		Ordinary Income		Ordinary Profit (excluding the impact of inventory valuation)	
			Changes from FY2017		Changes from FY2017		Changes from FY2017		Changes from FY2017
1	Petroleum business	2,663.0	370.3	62.0	4.0	61.0	2.2	37.0	-0.8
2	Petrochemical business	452.0	-6.5	17.0	-8.0	24.0	-6.4	24.0	-6.4
3	Oil E&P business	117.0	60.7	61.5	43.4	62.0	43.7	62.0	43.7
4	Other	61.0	11.0	6.5	0.9	6.0	0.9	6.0	0.9
5	Adjustment	-413.0	-78.6	5.0	-0.2	4.0	-0.3	4.0	-0.3
6	Total	2,880.0	356.9	152.0	40.1	157.0	40.1	133.0	37.1

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., EcoPower 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 *2
Net sales *1	117.0billion yen	2,663.0billion yen	452.0billion yen	61.0billion yen	2,880.0billion yen
Ordinary profit *1	62.0billion yen	61.0billion yen	24.0billion yen	10.0billion yen	157.0billion yen
Ordinary profit excluding impact of inventory valuation *1	62.0billion yen	37.0billion yen	24.0billion yen	10.0billion yen	133.0billion yen

Major assets	Partnerships Solid relationship of trust with oil producing countries for about 50 years	CDU capacity *5,*6 400,000 BD (Domestic market share: Approx. 11.4%)	Olefinic production capacity *5 Ethylene 1.29 mil tons/year (Domestic market share: Approx. 19%)	Wind power generation *5 capacity 227,000 kW (No. 3 in Japan and a 6% domestic share)	Corporate brand awareness  98.4% ※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)
	Operatorship (self-operation) We produces the largest volume of crude oil in the Middle East region for a Japanese operator.	Domestic Sales Volume *1 20,553thousand KL			
	Crude Oil Production *3 Approx. 52,000 B/D (Comparison with refining capacity: Approx. 13%)	Number of Service station *5 2,820	Aromatic production capacity *5 Para-xylene 1.18 mil tons/year Benzene 0.94 mil tons/year Mixed-xylene 0.62 mil tons/year	Solar power generation *5 capacity 24,000 kW	
	Crude Oil Reserves (Proved and Probable) *4 147.3 million barrels (Equivalent to approx. 22 years of supply)	Number of the "Cosmo the Card" Holders *5 4.41million cards			

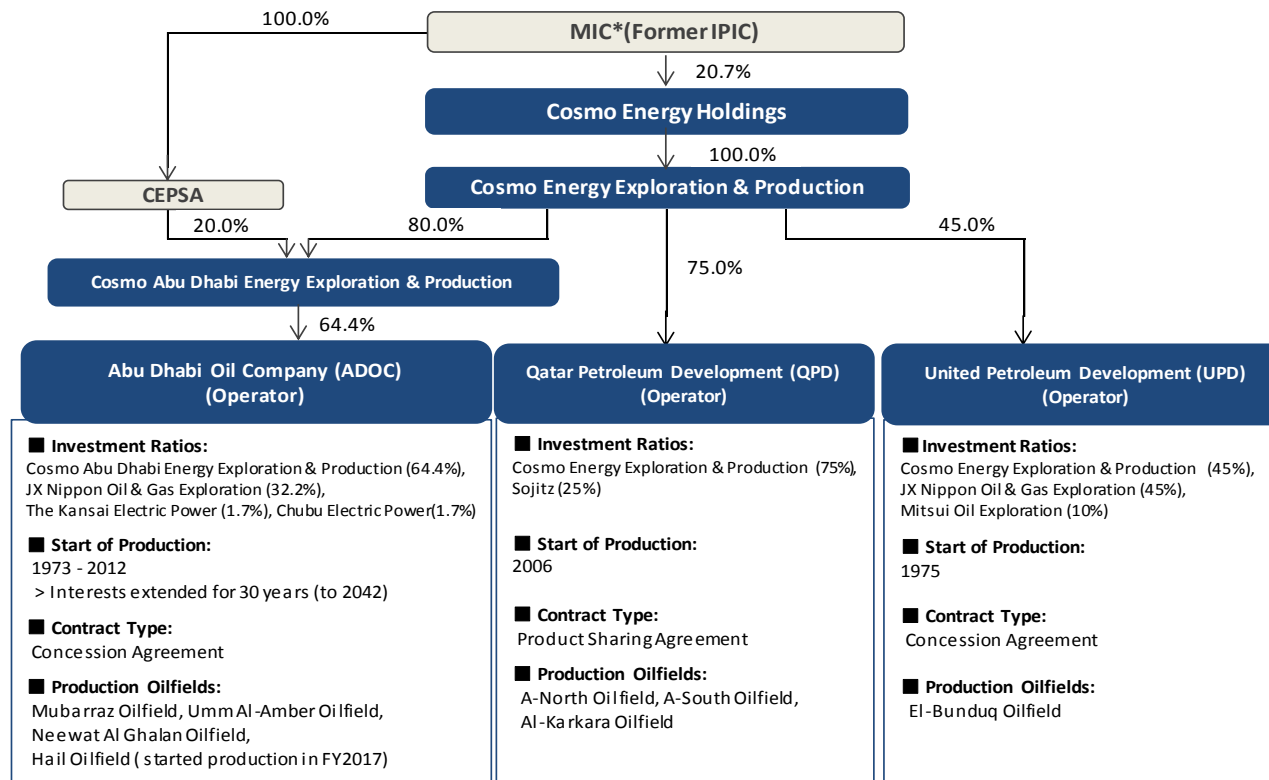
Major business companies related companies	<ul style="list-style-type: none"> • Cosmo Energy Exploration & Production • Abu Dhabi Oil (UAE) • Qatar Petroleum Development (Qatar) • United Petroleum Development (UAE/Qatar) 	<ul style="list-style-type: none"> • Cosmo Oil • Cosmo Oil Lubricants • Keiyo Seisei JV(Chiba JV) • Gyxis(LPG) • Cosmo Oil Marketing • Cosmo Oil Sales • Sogo Energy 	<ul style="list-style-type: none"> • Maruzen Petrochemical (Chiba/Yokkaichi) • Cosmo Matsuyama Oil • CM Aromatics (Chiba) • Hyundai Cosmo Petrochemical (Korea) 	<ul style="list-style-type: none"> • Eco Power (Wind power generation) • Cosmo Engineering • Cosmo Trade and Service • neo ALA 	—
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(*1)FY2018 Forecast、(*2) Including consolidated adjustment、(*3) FY2018 2Q Results、(*4) As of Dec. 31, 2017、(*5)As of Sep. 30, 2018

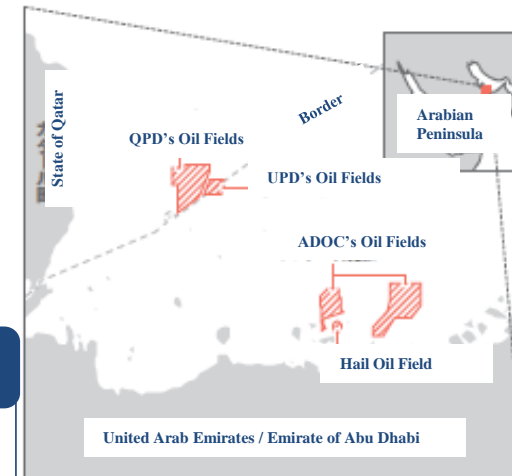
(*6) Including the supply of the petroleum product/semi product (37,000 bbls/day equivalent) from Showa Shell Sekiyu with the business alliance.

- ✓ 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 CEPESA

■ 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.)

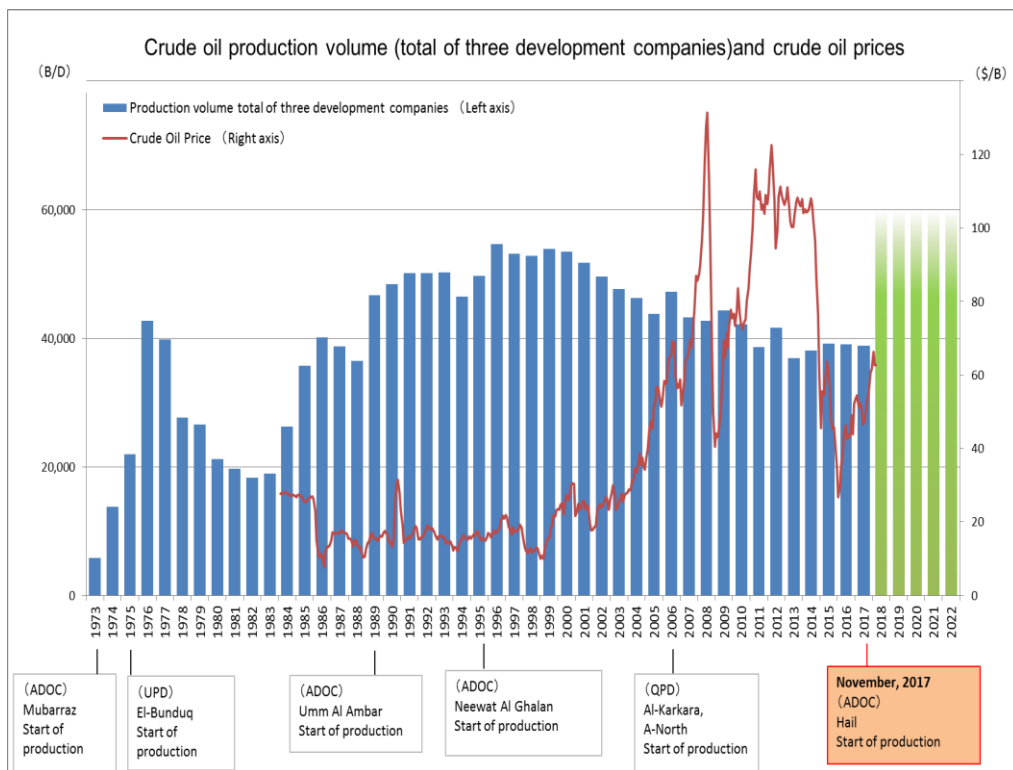
Business Environment in the Middle East Region (UAE / QATAR)

- 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)

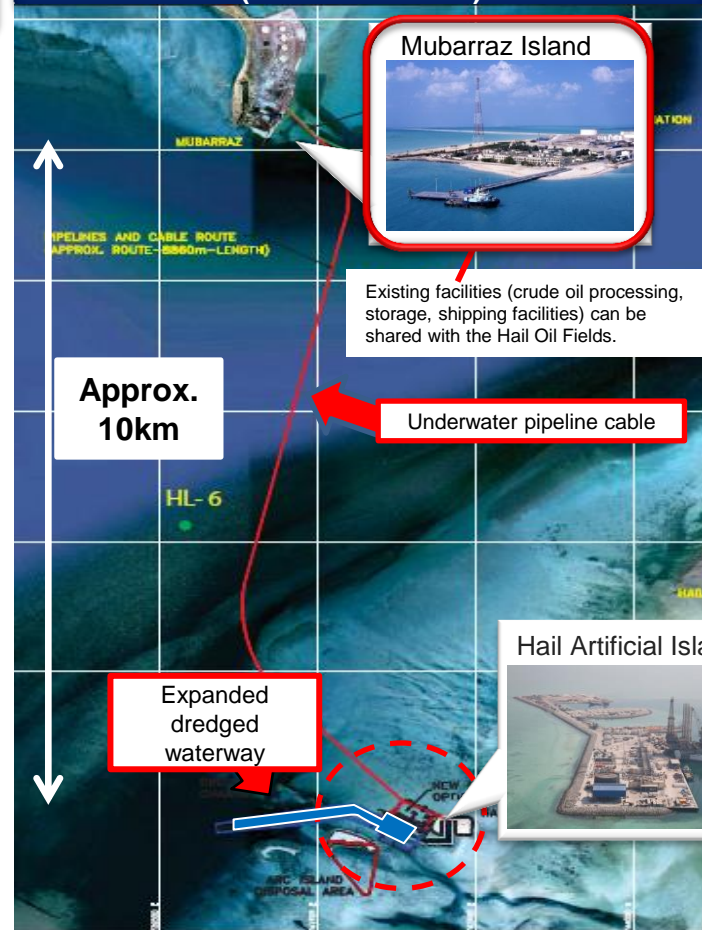
[Oil E&P Business] Growth Strategy – Production volume at three Operating Companies will be 1.5 times due to full production volume at the Hail Oil Field

- ✓ The Hail Oil Field started production in November 2017, with production ramping up to full-scale in January 2018. (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



Hail Oil Field and existing shipping terminal (Mubarraz Island)



*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.

[Petroleum Business] Enhancement of Competitiveness of Refineries Through Alliances

- ✓ FY2016 : Commencement of a two-year long run at the Chiba Refinery
→ Improvement in earnings: ¥7 billion
- ✓ FY2017 : Business alliance with Showa Shell Group (Showa Yokkaichi Sekiyu)
→ Synergy for Cosmo: ¥1 billion per year
- ✓ FY2018 : Integration of Chiba refineries of the Company and JXTG Nippon Oil & Energy Corporation
→ JV synergy: ¥10 billion per year

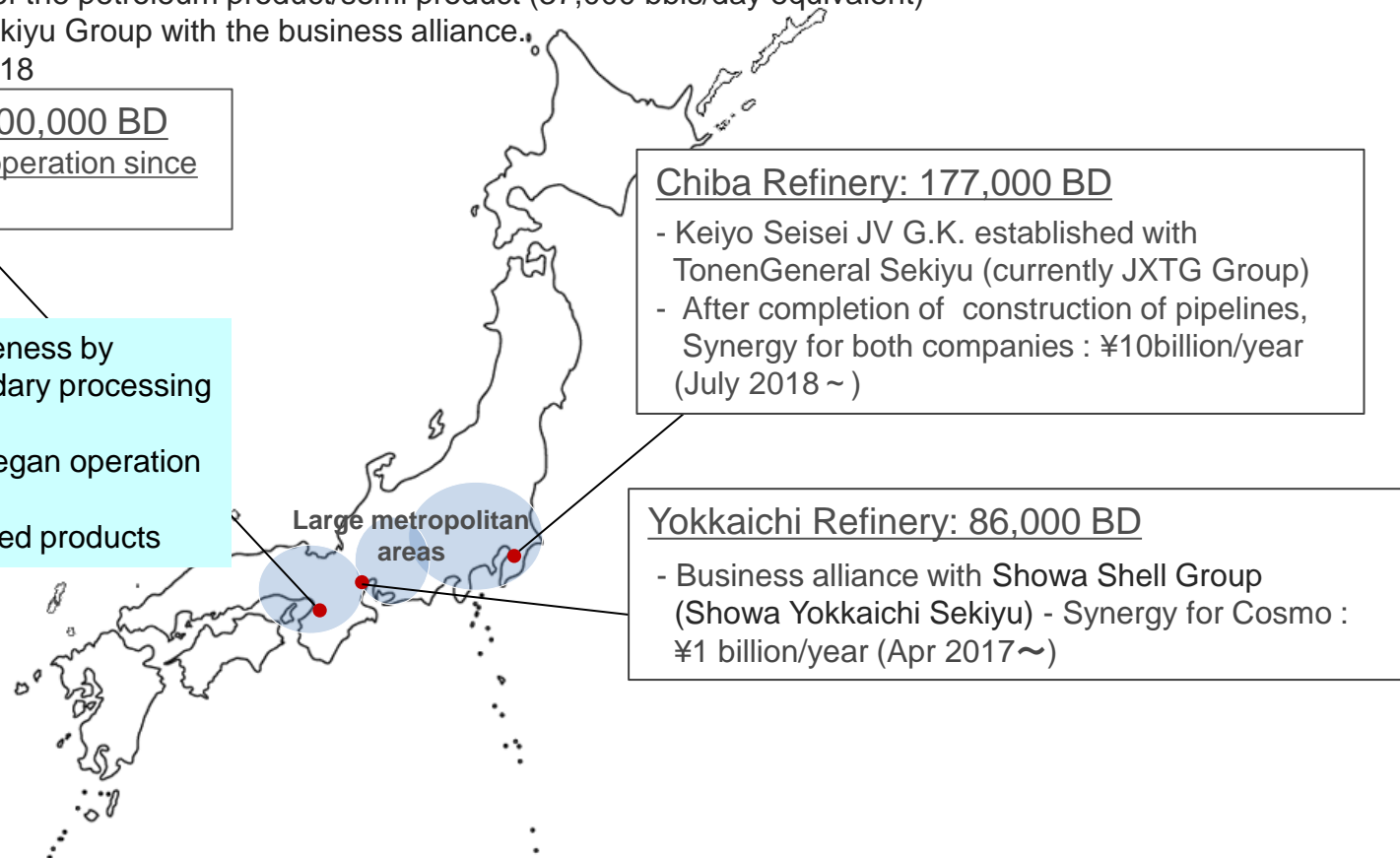
[CDU capacity: 400,000 BD]

- * Including the supply of the petroleum product/semi product (37,000 bbls/day equivalent) from Showa Shell Sekiyu Group with the business alliance.
- * As of 31th March, 2018

Sakai Refinery: 100,000 BD
- Delayed Coker in operation since 2010



- [Greater competitiveness by investing in secondary processing equipment]
- ✓ Delayed Coker began operation in 2010
 - ✓ Higher value-added products



Chiba Refinery: 177,000 BD

- Keiyo Seisei JV G.K. established with TonenGeneral Sekiyu (currently JXTG Group)
- After completion of construction of pipelines, Synergy for both companies : ¥10billion/year (July 2018 ~)

Yokkaichi Refinery: 86,000 BD

- Business alliance with Showa Shell Group (Showa Yokkaichi Sekiyu) - Synergy for Cosmo : ¥1 billion/year (Apr 2017 ~)

[Petroleum Business] Redevelopment of Measures to Increase the Competitiveness of Chiba Refinery

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- ✓ Continue the operation of two CDUs at Chiba Refinery, taking into account the environmental changes such as the IMO regulations, and implement integration with Petrochemical business to improve profitability.

■ Increase the competitiveness of Chiba Refinery

- Continue the operation of two CDUs at Chiba (177,000 BD) after the completion of the pipeline to maximize the use of the pipeline (from July 2018).
- Use direct desulfurization equipment to meet increasing demand for marine fuels (low-sulfur C fuel oil) in response to the IMO regulations and enjoy maximized benefits.
- Integrate business with Petrochemical business.

■ Response to the Sophisticated Methods of Energy Supply Structures

- First announcement: disposal of No.5 CDU at Yokkaichi Refinery (Before change): disposal of No.1 CDU at Chiba Refinery
- Second announcement: reduction of CDU capacity (Before change): disposal of No.5 CDU at Yokkaichi Refinery

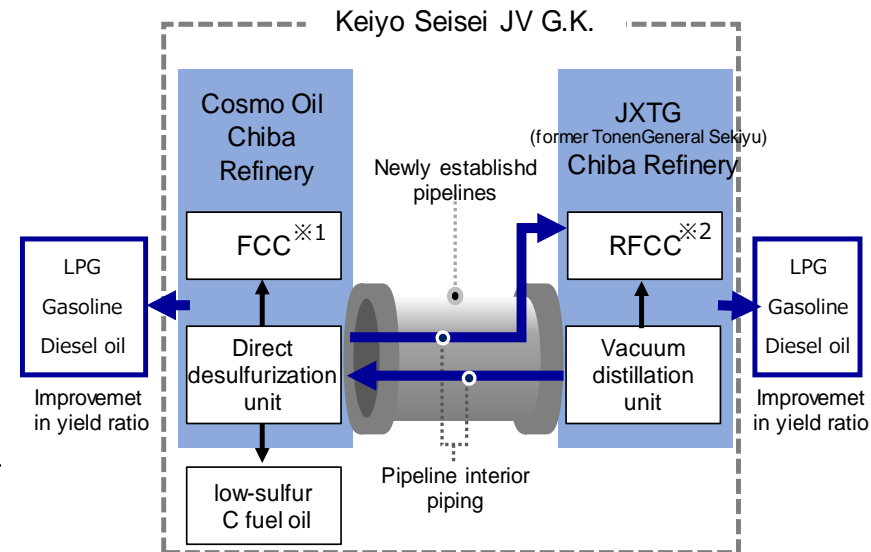
■ Overview of Keiyo Seisei JV G.K. (joint venture)

- Established: January 2015
- Capital contribution ratio: 50% each from the two companies
- Type of business: maximum use of pipelines

■ Overview of pipelines

- Completion of pipelines: February 2018
- Installation of nine pipelines (mutual adaptability between products and semi-finished products)
- Pipeline operation started : July 2018

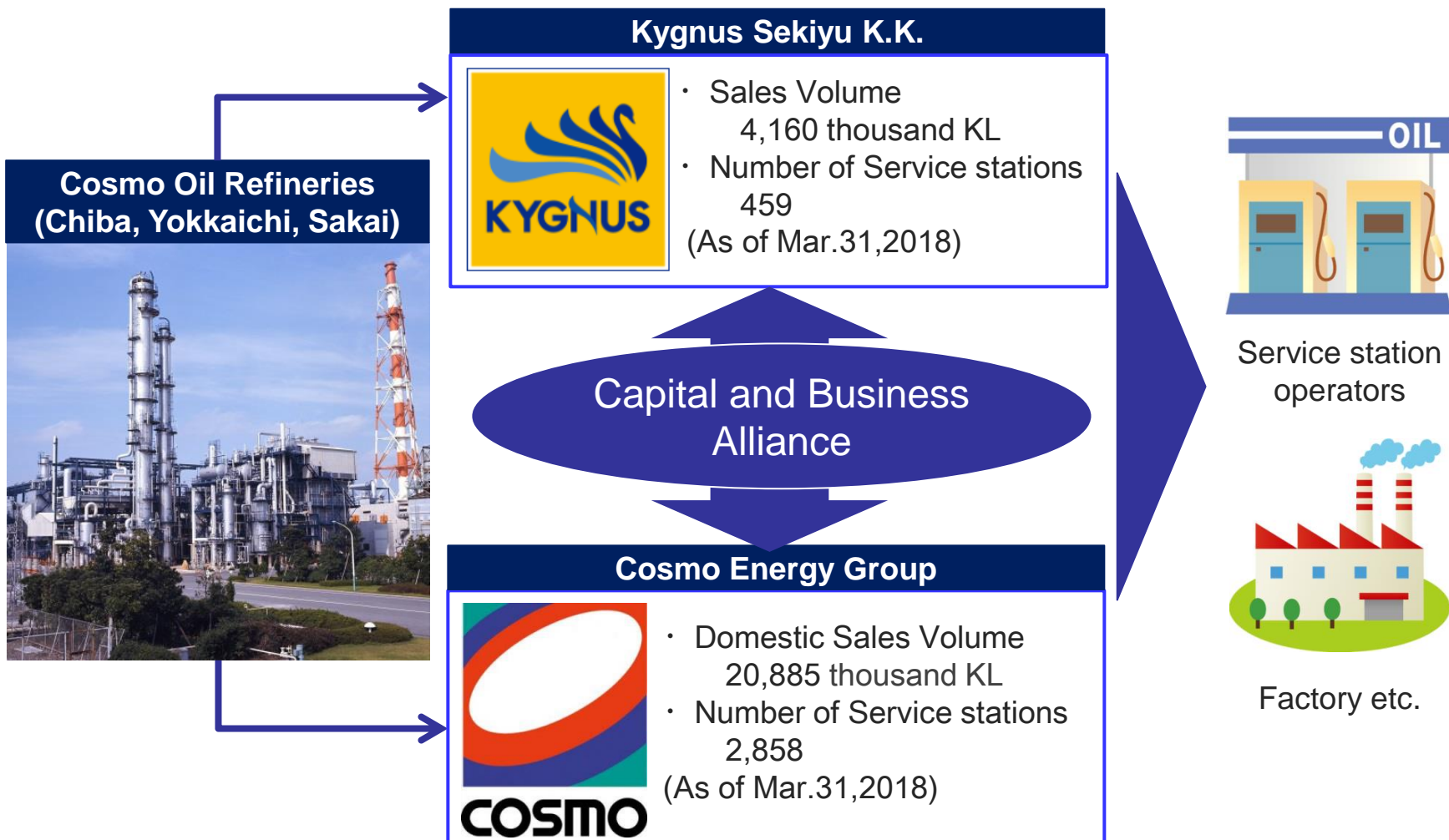
■ An example of Synergy



※1 Fluid Catalytic Cracking (FCC) is an equipment to convert heavy oil to LPG, gasoline, diesel oil etc.

※2 Residue Fluid Catalytic Cracking (RFCC) is an equipment to convert extra heavy oil to LPG, gasoline, diesel oil etc.

- ✓ 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. in about two years.
- ✓ Advance discussion and consideration with a view to a business alliance, in addition to the supply of petroleum products.



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

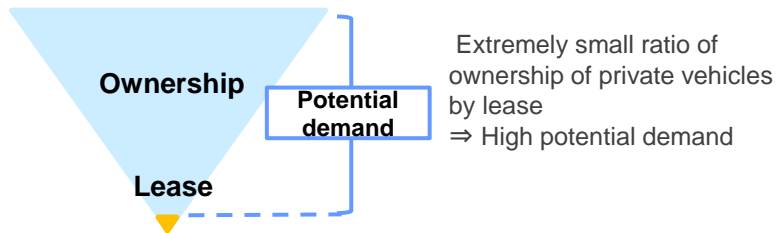
Low-risk Business Model that Takes Advantage of Strengths of SS

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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

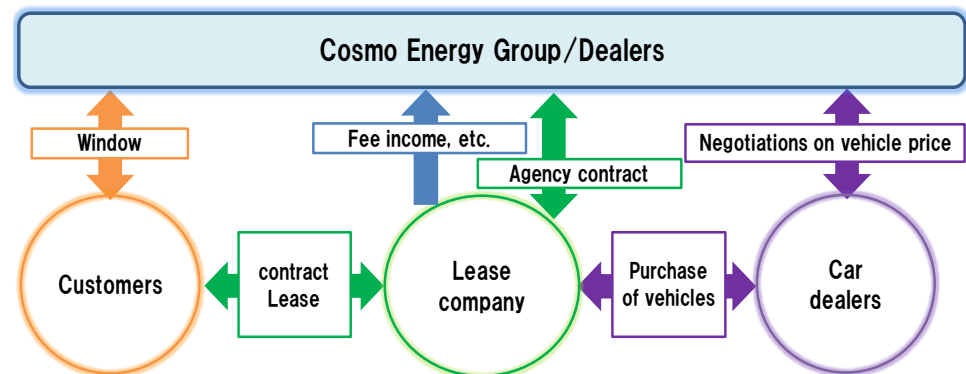
- Frequent contact with individual Customers
(500,000 units/day) (*1)
(*1) The number of cars of customers visiting Cosmo SS (estimated by Cosmo)
- Acquire customers using membership cards
("Cosmo The Card": effective number of members
4.44 mil cards) (*2) (*2) As of March 31, 2018
- Fuel oil discount system (patented business model)

■ Low risk

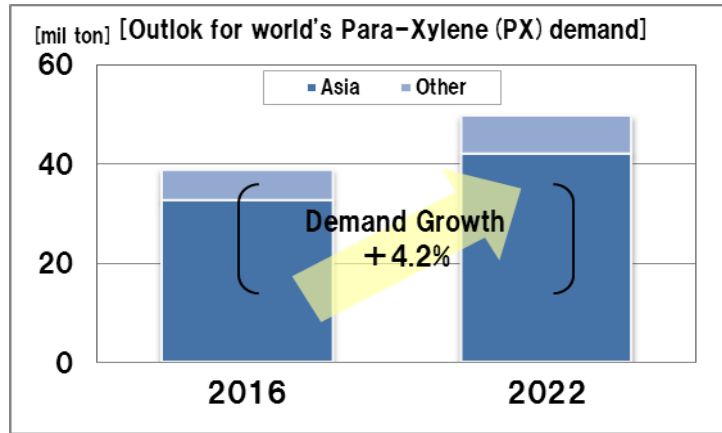
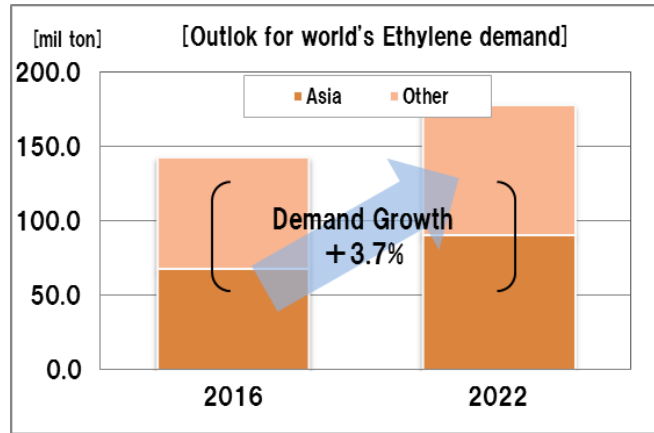
- Because the SS play the role of dealerships, there is no credit risk or risk of keeping vehicle inventory.

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

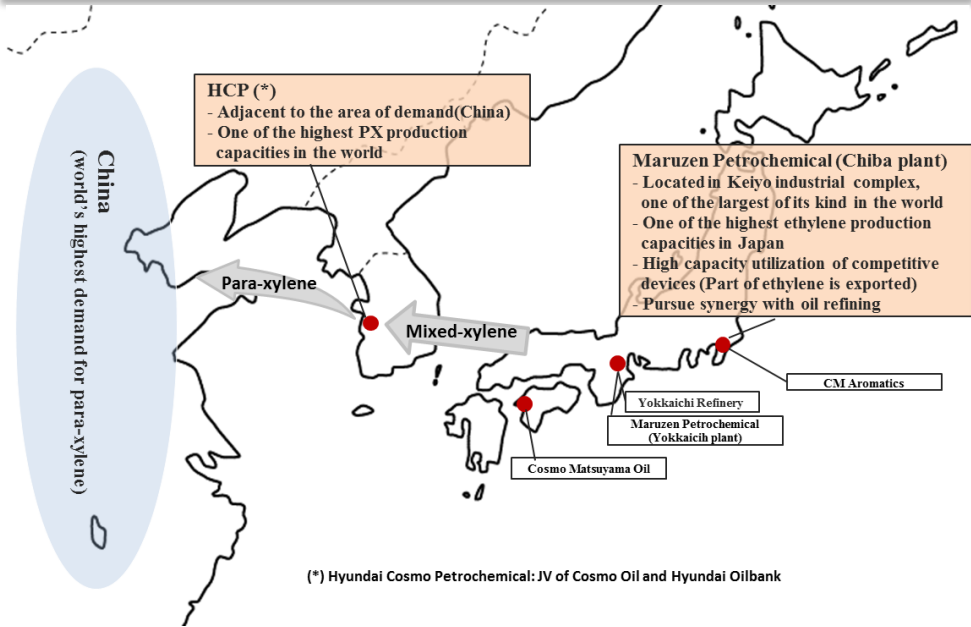


Expected global demand for petrochemical products



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

Strengths of Cosmo Energy Group

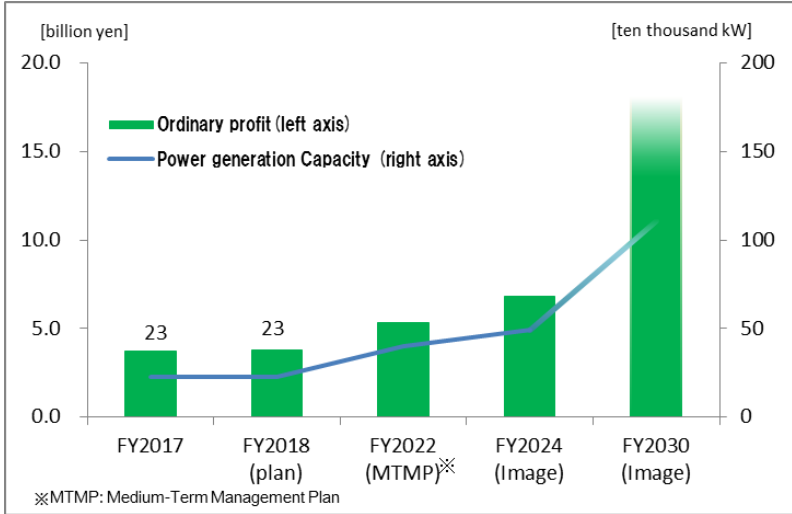


Production capacity

Product		Manufacture	Production capacity
Olefin-based	Ethylene	Maruzen Petrochemical	* 1.290 mil t/year
	Para-xylene	Hyundai Cosmo PetroChemical	1.180 mil t/year
Aroma-based	Benzene	Maruzen Petrochemical	0.600 mil t/year
		Hyundai Cosmo PetroChemical	0.250 mil t/year
		Cosmo Matsuyama Oil	0.090 mil t/year
	Total		0.940 mil t/year
	Mixed-xylene	Cosmo Oil (Yokkaichi Refinery)	0.300 mil t/year
CM Aromatics		0.270 mil t/year	
Total		0.618 mil t/year	
Aroma-based, total		2.738 mil t/year	

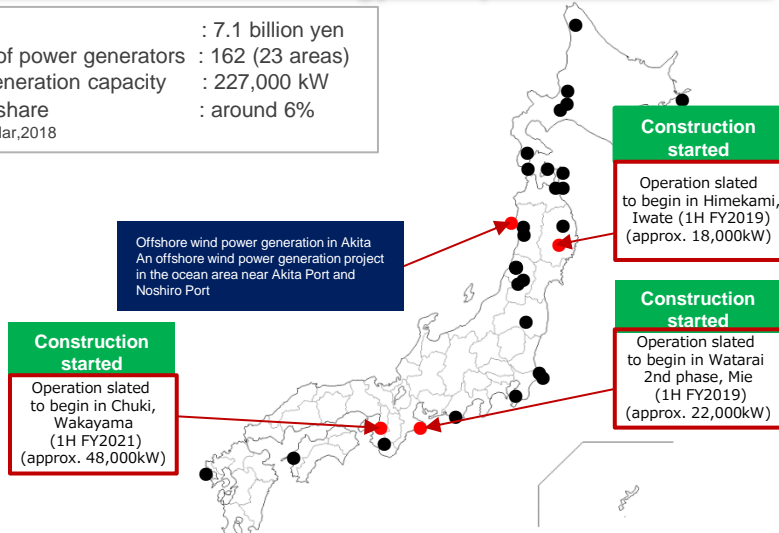
* Includes production capacity of Keiyo Ethylene (55% owned, consolidated subsidiary of Maruzen Petrochemical)

Changes in wind power generation capacity



Overview of Eco Power Co., Ltd. of Cosmo Energy Group

Capital : 7.1 billion yen
 Number of power generators : 162 (23 areas)
 Power generation capacity : 227,000 kW
 Industry share : around 6%
 *As of 31 Mar,2018



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)

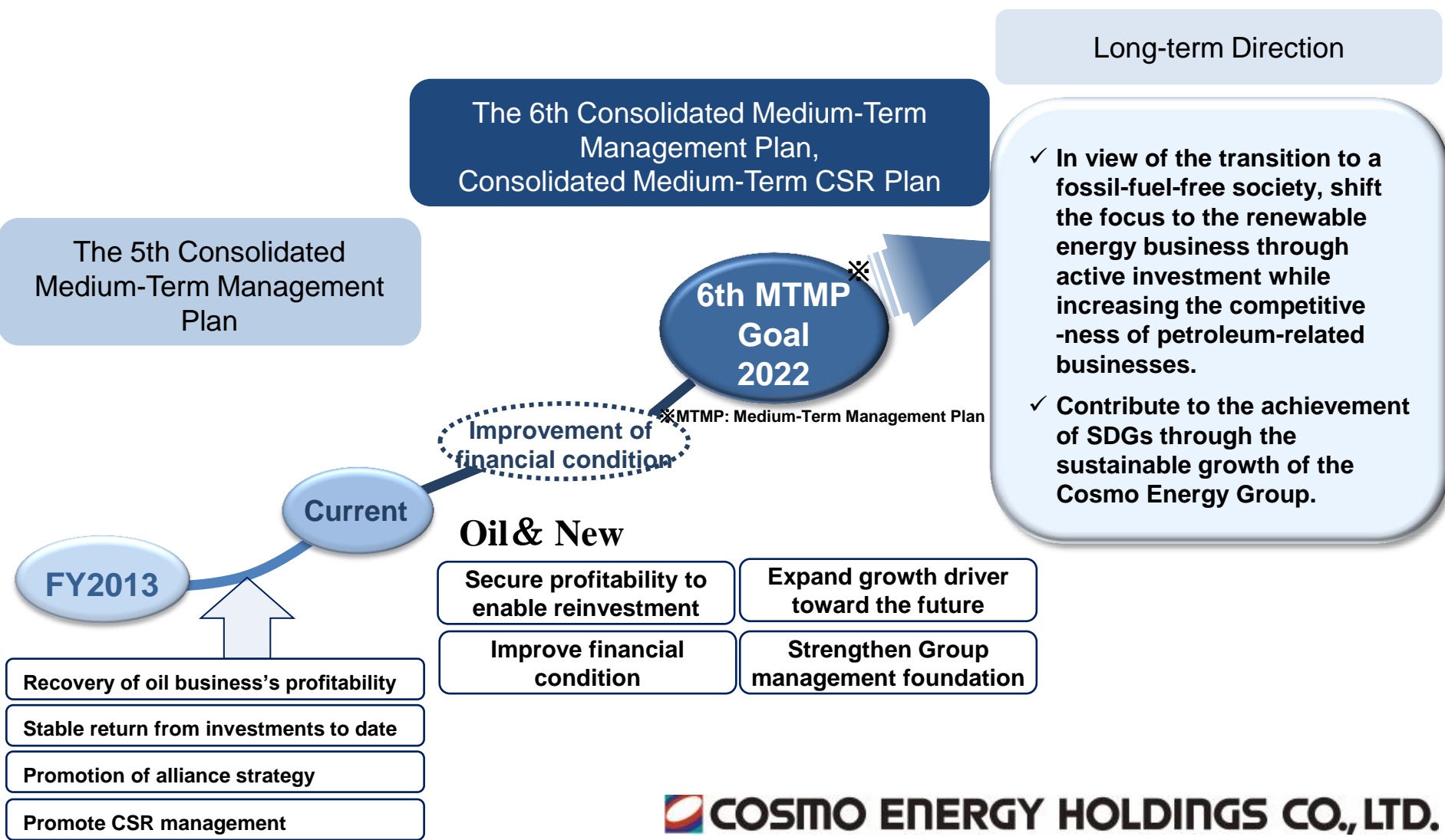
(*2) Source: "The current situation of renewable energy and Calculation Committee for Procurement Price, etc. of this year" Agency for Natural Resources and Energy, September 2017
 (*3) Identification of suitable sites (2 to 3 years) → Environmental assessment (4 to 5 years) → Construction work (1 to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

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

Long-Term Direction of Business

Positioning of the 6th Consolidated Medium-Term Management Plan for a Long-Term Increase in Corporate Value

- ✓ Improve the business portfolio for the subsequent growth in view of a long-term direction.
- ✓ Strengthen a financial condition by increasing the profitability of the Oil E&P and Petroleum business.



- ✓ The transition to a fossil-fuel-free society is accelerating in response to the Paris Agreement.
- ✓ Renewable energy will increase although the value of petroleum will remain by around 2030.

Paris Agreement
(Set the target of greenhouse gas reduction)

4th Industrial revolution
(Innovation of IT technology)

Acceleration of fossil fuel free

GLOBAL Increase in population

Stable growth of oil demand (level off after 2030 onwards)

(IEEJ outlook 2018)

Stable growth of petrochemical demand (deficiency despite new plants and revamp)

[Ethylens supply and demand (mmton)]

(forecast by think tank)

JAPAN Decrease in population

Wide-spread use of EV* *including PHV
(Cosmo's forecast based on forecast by think tank)

Ratio of new car

2020 2030 2040

Decline in oil demand (A certain amount of gasoline demand remains)
(forecast by think tank)

(mm KL)

2017 2030 2040

Expansion of sharing economy **Expansion of renewable energy** (Acceleration of wind power generation development)
(Natural resources and energy agency)

(Association of sharing economy)

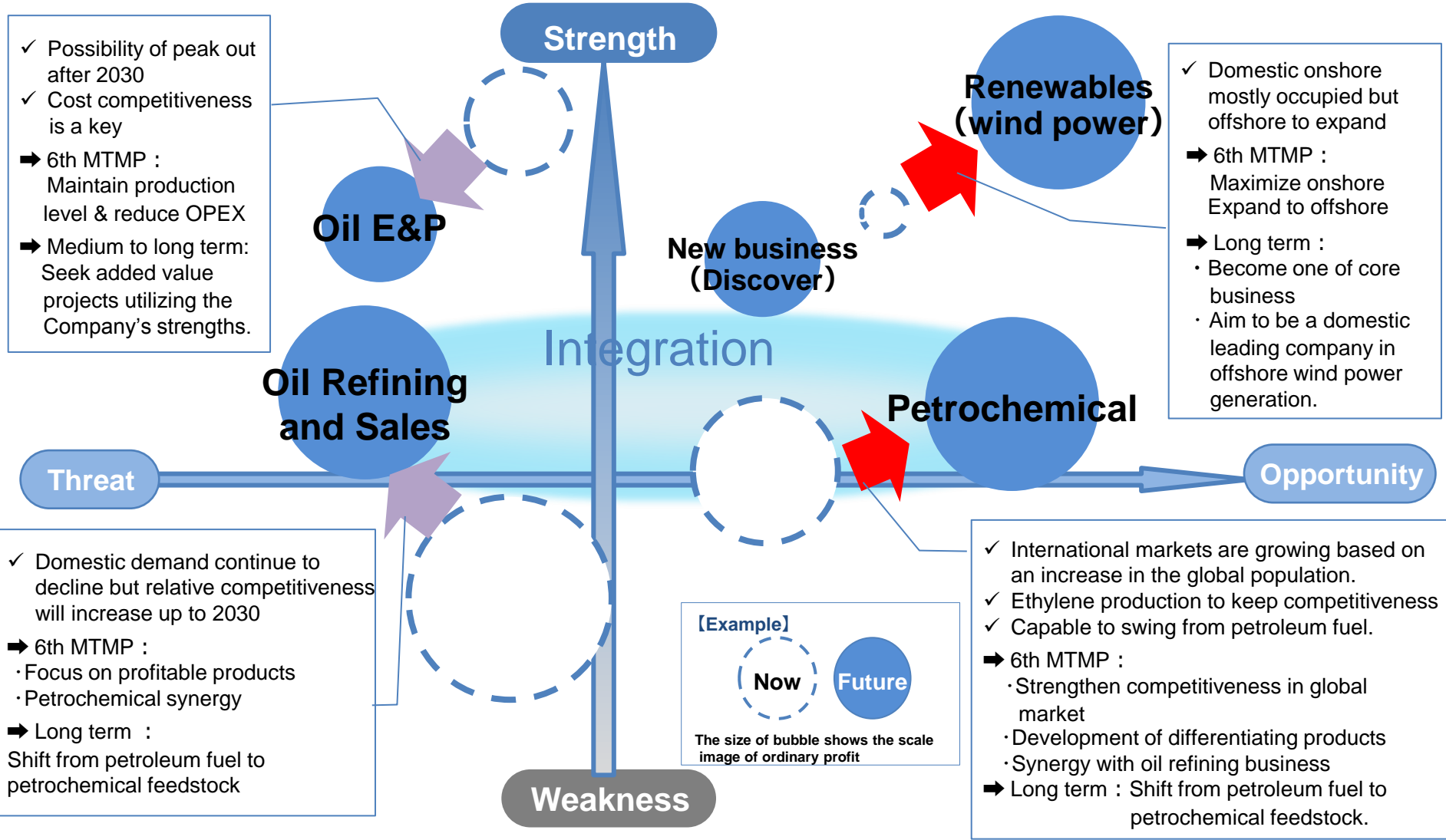
[wind power's capacity]
(10 thousand Kw)

2017 2030

Offshore
Onshore

Conversion image to long-term business portfolio

- ✓ In view of the transition to a fossil-fuel-free society, shift the focus to the renewable energy business through active investment while increasing the competitiveness of petroleum-related businesses.
- ✓ Contribute to the achievement of SDGs through the sustainable growth of the Cosmo Energy Group.



The 6th Consolidated Medium-Term Management Plan

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

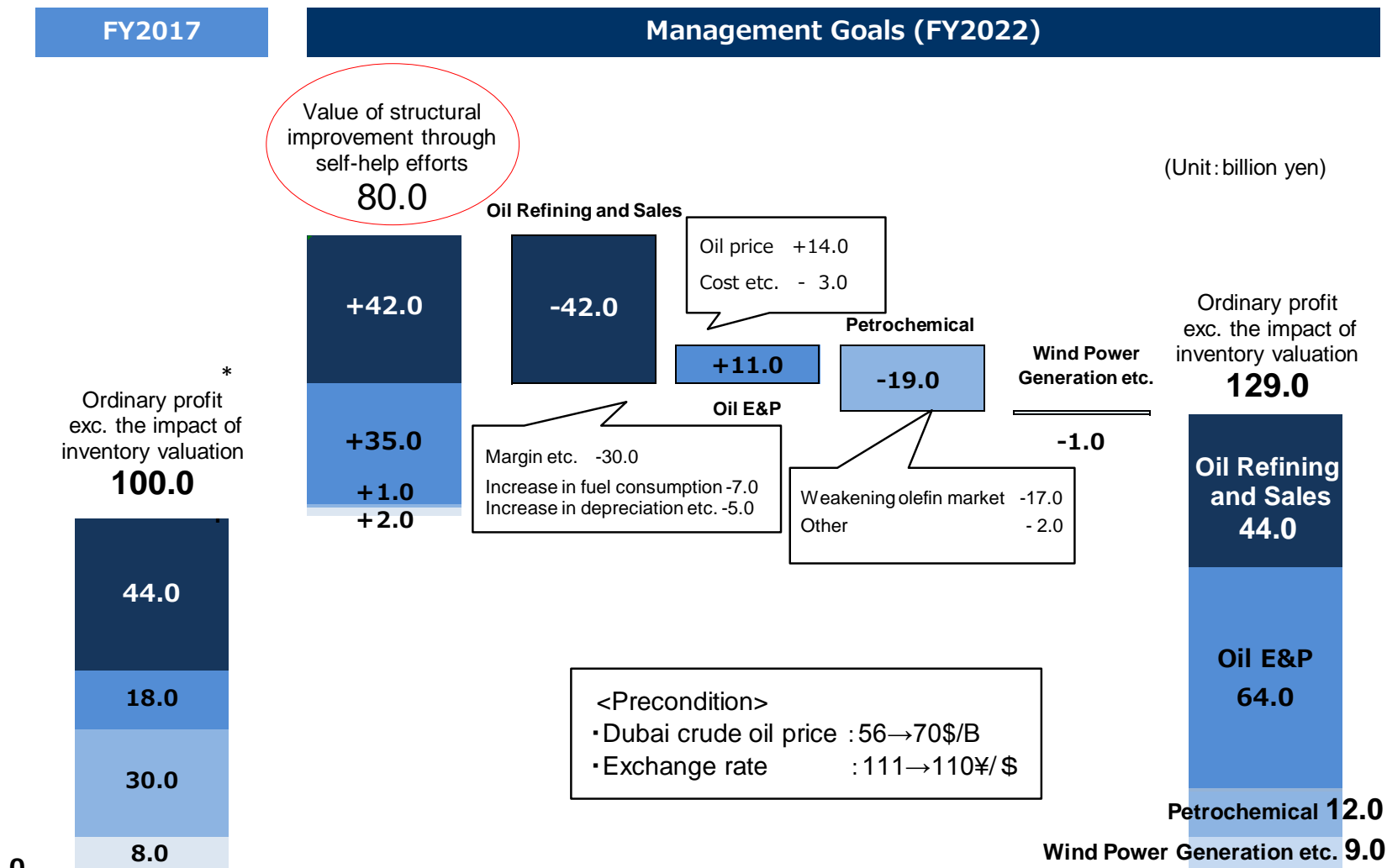
【 Precondition 】

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	Improvement
Improvement in FY2022 vs 2017 (excl. impact of market condition)						80.0+α
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 [※]
Wind Power Generation	Expand onshore wind farms (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)

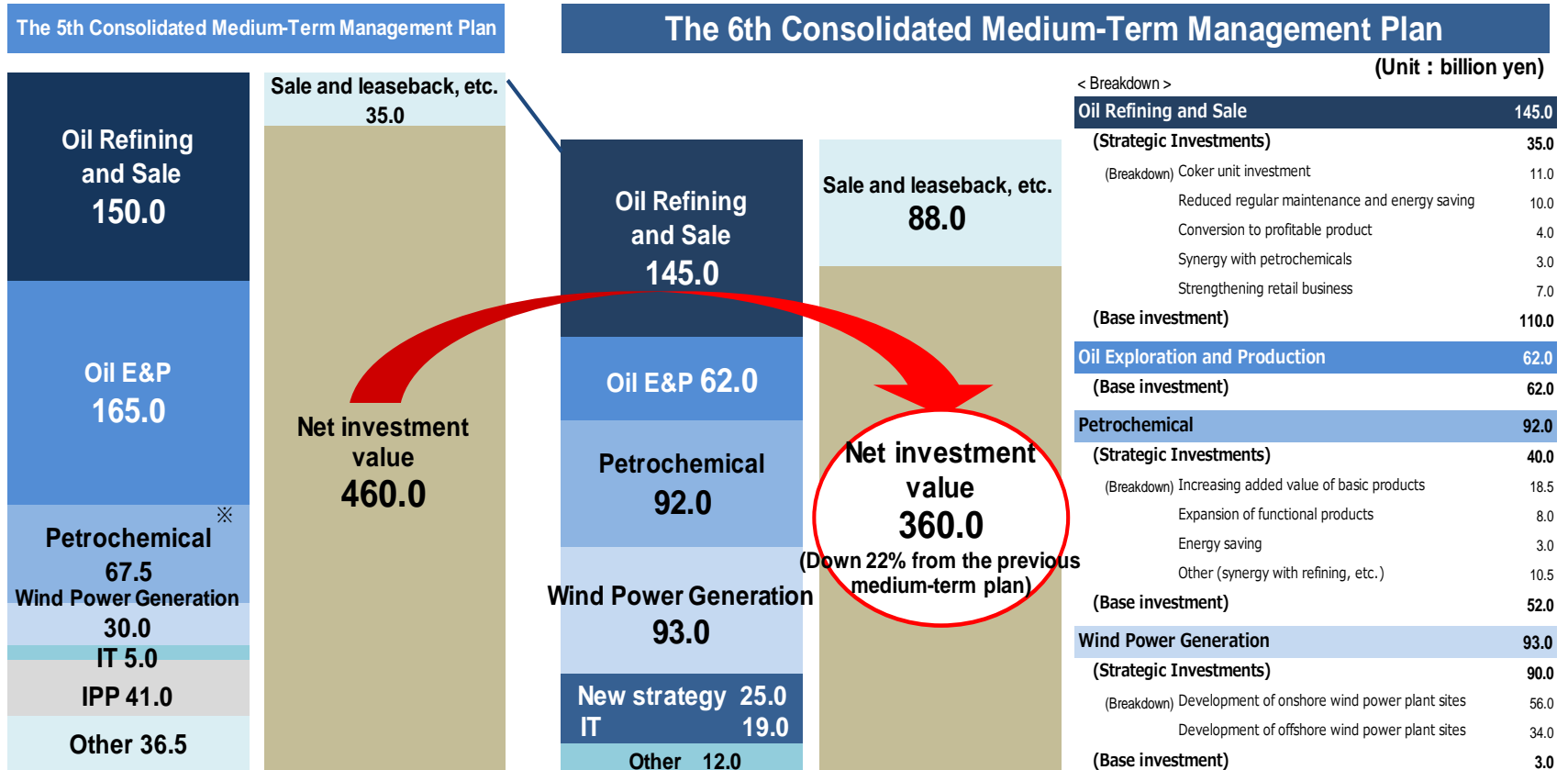
Incoming Cash	Outgoing Cash
535.0	360.0
Net profit 225.0 →Increase shareholders 'equity	Investment ※ 360.0
Depreciation etc. 310.0	Free Cash Flow 175.0 →Decrease in debt with interest →Dividend

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

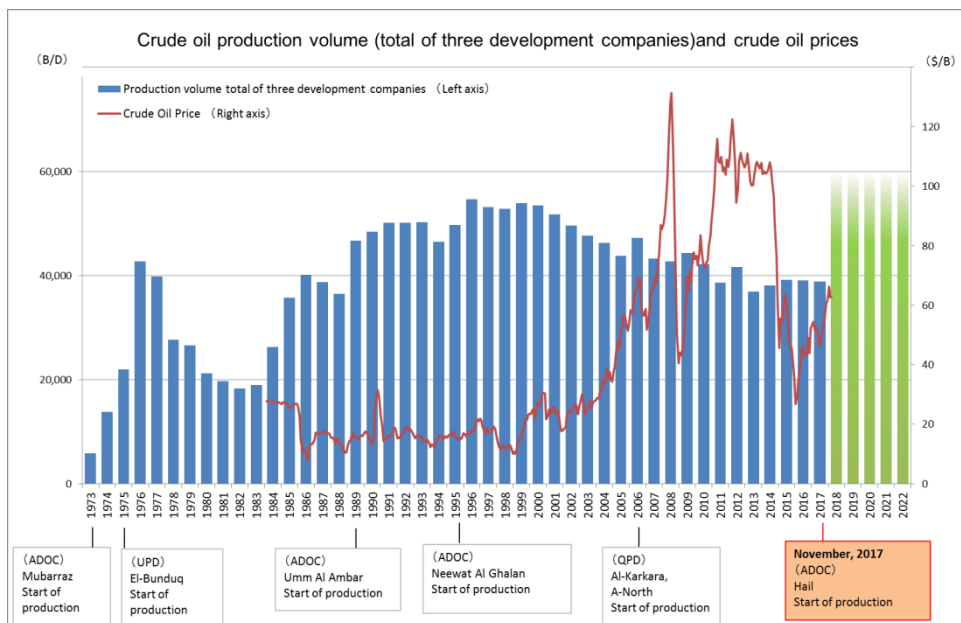
Long-term business strategy based on strengths

- ✓ 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

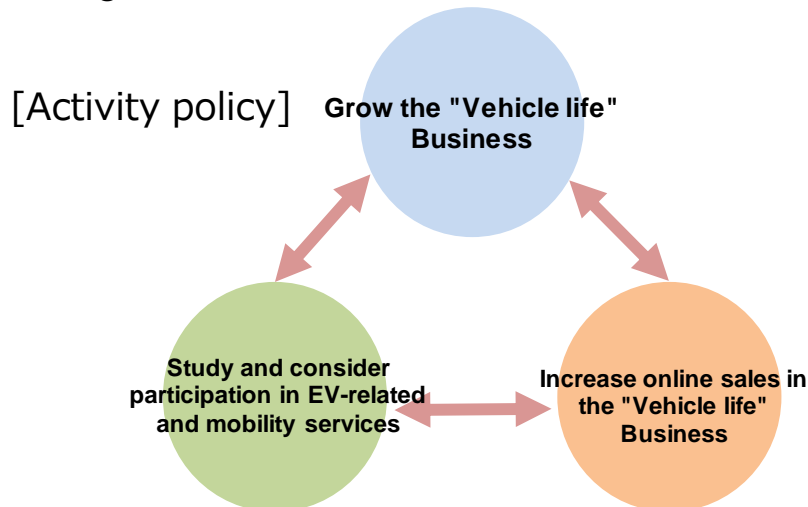
- ✓ Acquire business areas based on a business model reform corresponding to a shift to EVs and changes in consumers’ use of automobiles.
- ✓ Acquire total competitiveness together with oil refining business

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

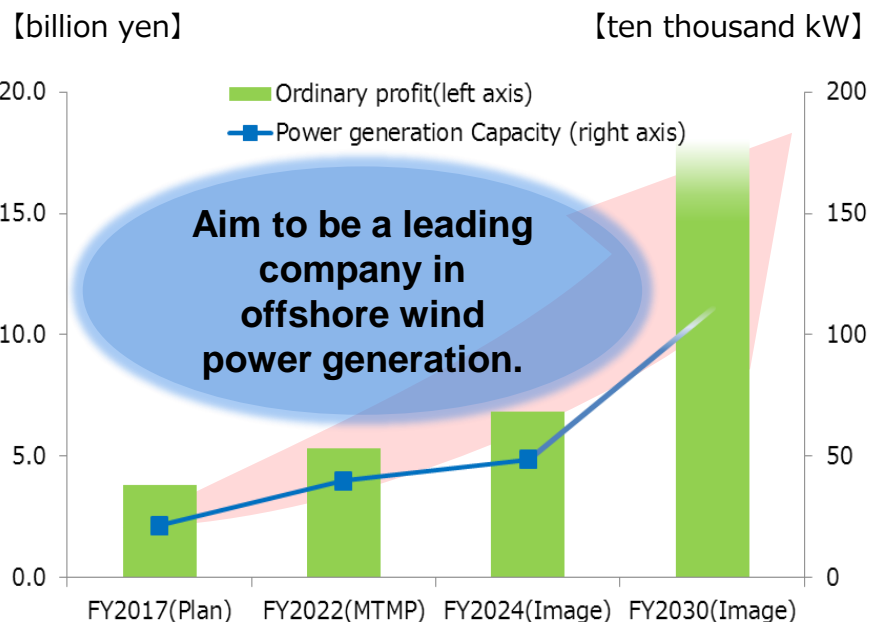
Long-term environmental awareness

- ✓ The Ministry of Economy, Trade and Industry plans to triple Japan's dependence on wind power by 2030.
- ✓ Japan must reduce CO2 emissions by 26% by 2030 to comply with the Paris Agreement.
- ✓ Land suited for the development of wind power plants will become full in the future.
- ✓ Offshore sites offer greater availability of wind power resources than onshore sites.
- ✓ Laws are being developed for offshore wind power generation.

Long-term business strategy

- ✓ Launch the offshore wind power business around FY2021.
 - ➔ Full-scale contribution to profit is expected to occur after the period of the 6th medium-term management plan.

Trend of wind power generation capacity of Cosmo Energy Group



Business Strategy:

Wind power generation Business (6th Medium-Term Management Plan) 59

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

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