# Cosmo Energy Holdings Co., Ltd. Presentation on Results for Second Quarter of Fiscal 2017

November 9, 2017



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With an improving business environment including the domestic supplydemand balance, we increased our earnings strength primarily through a high operating ratio at refineries and petrochemical plants.

### [Oil Refining and Sales]

- ✓ In addition to the achievement of safe operation and high operating ratios at the refineries, the recovery of affiliated operators amid the shrinking spot market and the appropriate margin, which both resulted from the domestic supply-demand balance improvement, contributed earnings.
  - ⇒ Ordinary income excluding the impact of inventory valuation stood at ¥20.3 billion (up ¥31.5 billion year on year)

### [Petrochemical]

- ✓ In addition to the firm market conditions, the sales volume increased thanks to the absence of the impact of regular maintenance at Maruzen Petrochemical.
  - ⇒ Ordinary income excluding the impact of inventory valuation stood at ¥16.7 billion (up ¥12.4 billion year on year)

### [Oil Exploration and Production]

- ✓ Rise in the crude oil price\*
  - ⇒ Ordinary income stood at ¥9.0 (up ¥2.7 billion year on year)
    - (\*) Average price of Dubai crude oil in 1H rose to \$51 from \$37, year on year

### [Key Points in Financial Results]

- ✓ Consolidated ordinary income excluding the impact of inventory valuation was ¥49.3 billion (up ¥47.9 billion year on year).
- ✓ Quarterly net profit was ¥22.4 billion(up ¥18.1 billion year on year)
  - ⇒ The net debt-to-equity ratio was 3.2 (improved 0.4 point from the end of previous year).

Amid a continuing favorable conditions such as improved domestic supplydemand balance, we strengthen our earning power by raising refinery competitiveness and increasing production in Oil E&P business.

### [Oil Refining and Sale]

- ✓ Strengthen refinery competitiveness through raising operating ratios by maintaining safe operation and reducing regular maintenance periods, etc. and by accelerate alliances in Yokkaichi and Chiba area.
- Maintain appropriate sales and achieve an appropriate margin while favorable condition continues.

### [Petrochemical]

Maintain the high operating ratios of both the ethylene and the para-xylene production facilities.

### [Oil Exploration and Production]

✓ Commenced production at the Hail Oil Field and aim for full production at an early stage. (ref. page 36).

### [Wind Power Generation]

✓ Commence the operation of Sakata Port Miyaumi / Ohama (approx. 9,000 kW) and Ishikari Bay New Port (approx. 7,000 kW), therefore increase the power generation capacity by approx. 8% year on year.

### Revision of earnings forecast

- ✓ The full-year forecast has been revised, mainly taking into account the actual results for the first half.
- ✓ In the second half, as announced at the beginning of the year, crude oil price at \$50/bbl and the Yen-Dollar exchange rate at ¥110/\$.
- ✓ On a full-year basis, we expect ¥90.0 billion in consolidated ordinary income excluding impact of inventory valuation, and ¥43.0 billion in net profit.

 [Reference] Precondition

 First half
 Second half
 Full year

 Crude oil (Dubai) \$/B
 50
 50
 50

 JPY/USD exchange rate ¥/\$
 111
 110
 111

### Dividend policy

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

- ✓ In the final fiscal year of the current medium-term management plan, increase earnings power by steadily and promptly implementing each strategy.
- ✓ In the next medium-term management plan, achieve profitability that will enable reinvestment and strengthen the financial positon at an early stage for further growth.

		Final Fiscal Year of Current Medium-term Plan Outlook for FY2017	Next Medium-term Plan From FY2018
	Incoming cash	Ordinary income excluding impact of inventory: 90.0 billion yen (up 48.0 billion yen YoY)	Cash flow improves
Financial Outlook	Outgoing cash	Peak of growth investment (The Hail Oil Field development, Chiba JV, IPP, etc.)	⇒ Improve financial positon, shareholder returns, and growth investment
	Net D/E ratio (based on credit rating)	Expected to be below 3 times	Aim below 2 times at an early stage
		Oil price remains firm	
	Oil Exploration and Production	The Hail Oil Field: commenced production	The Hail Oil Field: full production continues     Total production of 3 operating companies will increase to approx.  1.5 times compared to FY2016
		Appropriate market conditions through improved supply-demand balance.	
	Oil Refining	Yokkaichi Refinery: commenced business alliance     ⇒Our synergy: 1 billion yen/yr.	Chiba JV: Pipeline construction will be completed     JV Synergy of two companies: 10 billion yen/yr.
Business	and Sales	• Increased operating ratio (from 88% in the previous year to 94%)  ⇒ Improve unplanned suspension ratio, reduce regular mantenance periods.	
Environment and		Acquisition of 20% of shares in Kygnus Sekiyu K.K	Start supplying fuel oil to Kygnus Sekiyu K.K     ⇒ Maintain refineries' high operating ratios and increase sales volumes
Our Strategy		Car lease business for individuals (aim for a total of 48,000 units)	Further enlarge the car lease business for individuals
		The market for ethylene, etc. remains firm	
	Petrochemical	High operating ratios of ethylene and para-xylene production facilities	Raise the competitiveness of the ethylene plant and improve functional products
			⇒ Synergy with oil refining business and JV with Arakawa Chemical Industries, Ltd.
		Feed-in Tariff (FIT, 20-year fixe	ed-price purchase agreement)
	Wind Power Generation	Operation commences at Sakata Port Miyaumi /Ohama and Ishikari Bay New Port (power generation capacity of 230,000 kW in total )     ⇒ Increased profit of approx. 1 billion yen	Aim for approximately double the power generation capacity

### **Results for Second Quarter of FY2017**

No.	Item	FY2017 (AprSep.2017)	FY2016 (AprSep.2016)	Changes	(Rate of change)	Unit: billion yen (Ref) Forecast FY2017
1	Net sales	1,134.3	1,023.8	110.5	+11%	2,432.0
2	Cost of sales	1,034.6	944.2	90.4		-
3	Selling, general and administrative expenses	61.5	62.8	-1.3		-
4	Operating income	38.1	16.8	21.3	+127%	76.5
5	Non-operating income/expenses, net	5.3	-2.3	7.6		-
6	Ordinary income	43.4	14.5	28.9	+199%	80.0
7	Extraordinary income/losses, net	-2.2	-1.9	-0.3		-
8	Income taxes	11.8	3.7	8.1		-
9	Profit attributable to non- controlling interests	6.9	4.5	2.4		-
10	Profit attributable to owners of parent	22.4	4.3	18.1	+421%	43.0
11	Impact of inventory valuation	-5.9	13.1	-19.0		-10.0
12	Ordinary income excluding impact of inventory valuation	49.3	1.4	47.9		90.0
13	Dubai crude oil price (USD/B) (AprSep.)	50	43	7		50
14	JPY/USD exchange rate (yen/USD)(AprSep.)	111	105	6		111
[ Refe	rence]				1	
15	Dubai crude oil price (USD/B) (JanJun.)	51	37	14		
16	JPY/USD exchange rate (yen/USD)(JanJun.)	112	112	0		

### Consolidated Ordinary Income by Business Segment - Changes from 2Q FY2016

Unit: billion yen

	No		FY2017 (AprSep.2017)		FY2016 (AprSep.2016)		Changes	
No			Ordinary income	Ordinary income exc. Impact of Inventory valuation	Ordinary income	Ordinary income exc. Impact of Inventory valuation	Ordinary income	Ordinary income exc. Impact of Inventory valuation
1		Total	43.4	49.3	14.5	1.4	28.9	47.9
2	Ð	Petroleum business	14.4	20.3	1.6	-11.2	12.8	31.5
3	egment	Petrochemical business	16.7	16.7	4.6	4.3	12.1	12.4
4	Each s	Oil E&P business (*1)	9.	0	6.3		2.7	
5	Other (*2)		3.	3	2.	0	1.	3

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

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

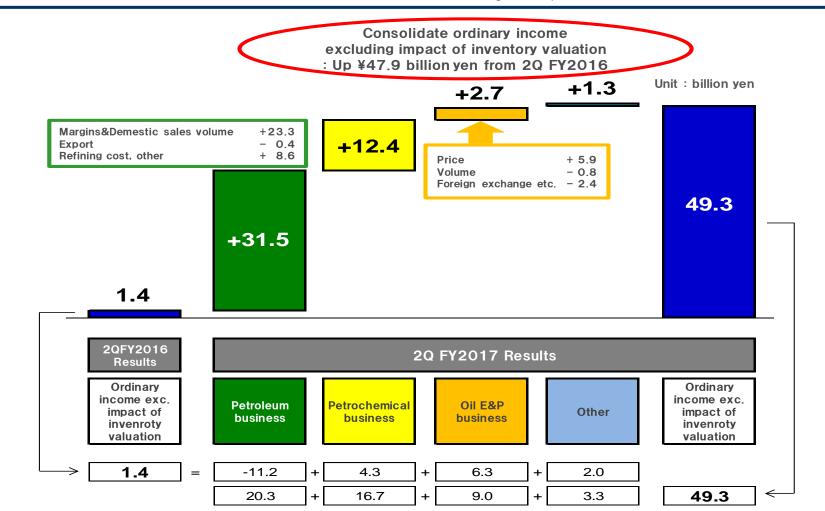


Petroleum business

: Profit increased due to the achievement of the safe operation and high operating ratios of the refineries and the appropriate margin resulted from the improved domestic supply-demand balance.

Petrochemical business: Profit increased due to the firm market conditions and the increased sales volume by the absence of regular maintenance.

Oil E&P business : Profit increased due to the higher oil price.



✓ Free cash flow becomes positive and net worth improved.

### **Consolidated Cash Flows**

Unit: billion yen

No		FY 2017	FY 2016
INO		(AprSep.2017)	(AprSep.2016)
1	Cash flows from operating activities	58.0	-4.3
2	Cash flows from investing activities	-52.8	-64.3
3	Free cash flow (1+2)	5.2	-68.6
4	Cash flows from financing activities	12.0	50.6
5	Cash and cash equivalents at end of the period	52.8	69.5

### **Consolidated Balance Sheets**

Unit: billion yen

No		FY2017 (As of Sep. 30, '17)	FY2016 (As of Mar. 31, '17)	Changes
1	Total Assets	1,572.3	1,525.7	46.6
2	Net assets	298.5	272.8	25.7
3	Net worth	184.5	164.7	19.8
4	Net worth ratio	11.7%	10.8%	Up 0.9 points
5	Net interest-bearing debt *1	725.9	727.3	-1.4
6	Debt Equity Ratio (times) (based on the credit rating) *2	3.2	3.6	Up 0.4 points

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

<sup>\*2 50%</sup> of original amount of Hybrid Loan regarded as Equity is counted as Equity by the assessment of Japan Credit Agency, Ltd.

(50% of 60 billion yen Hybrid Loan started on 1st April 2015 is included into Equity)

✓ The Hail Oil Field, Chiba JV, IPP and other large-scale investment is expected to be decrease drastically from FY2018

### Capital Expenditures. Depreciation, etc.

Unit: billion yen

No.		2QFY2017 Results	Change from 2QFY2016
1	Capital expenditures	51.2	-6.9
2	Depreciation expense amount, etc	19.7	0.6

Capital Expenditures by Business Segment

Unit: billion ven

No.		2QFY2017 Results	2QFY2016 Results	Change from 2QFY2016	(ref.) Main fluctuation factor
1	Petroleum	10.8	9.8	1.0	-
2	Petrochemical	2.0	7.0	-5.0	Maruzen Petrochemical skipped regular maintenance
3	Oil E&P	25.4	19.7	5.7	Development of the Hail Oil Field
4	Other	14.2	21.7	-7.5	IPP upgrade construction
5	Adjustment	-1.2	-0.1	-1.1	-
6	Total	51.2	58.1	-6.9	-

### **Forecast for FY2017 Performance**

Unit: billion yen

		FY2017 Forecast		FY2017 Previous Announcement		Changes		
No	No Total		Ordinary income	Ordinary income exc. Impact of Inventory valuation	Ordinary income	Ordinary income exc. Impact of Inventory valuation	Ordinary income	Ordinary income exc. Impact of Inventory valuation
1			80.0	90.0	54.0	64.0	26.0	26.0
2		Petroleum business	28.0	38.0	4.0	14.0	24.0	24.0
3	egment	Petrochemical business	26.0	26.0	14.0	14.0	12.0	12.0
4	oil E&P business (*1)		16	6.0	26	6.0	-1	0.0
5			10	0.0 10.0		0.0		_

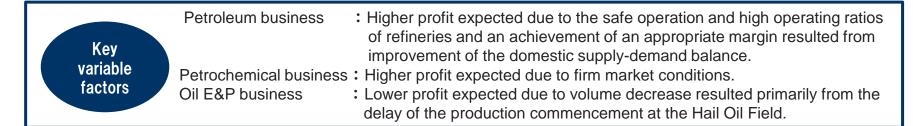
<sup>(\*1)</sup> The Accounting period of three operators (Abu Dhabi Oil Company, Qatar Petroleum Development and United Petroleum Development) is December.

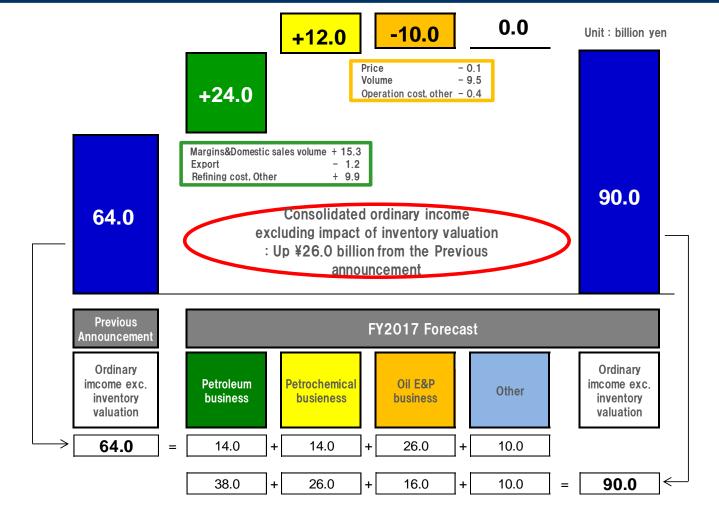
<sup>(\*2)</sup> Including consolidated adjustment

No.		FY2017 Forecast	FY2017 Previous Announcement	Changes
6	Profit attributable to owners of parent	43.0	20.0	23.0
7	Dividend per Share (Forecast) (yen)	¥50	¥50	-

[ Reference ] Precondition

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No.		FY2017 Forecast	FY2017 Previous Announcement	Changes
8	Crude oil (Dubai) (\$/B) (AprMar.)	50	50	0
9	JPY/USD exchange rate (AprMar.)	111	110	1
10	Crude oil (Dubai) (\$/B) (JanDec.)	51	51	0
11	JPY/USD exchange rate (JanDec.)	111	111	0
12	Spread between Ethylene- Naphtha (\$/ton) (AprMar.)	673	500	173





### Supplementary Information

### P.16-26 [2Q FY2017 Results] Supplementary Information

- Sales Volume(2Q FY2017 results/FY2017 forecast)
- Crude Oil Price and Exchange Rate, CDU Operating Ratios and Crude Oil Production Volume
- -Crude Reserves Estimate (Proved and Probable)
- Results by Business Segment Changes from 2Q FY2016
- Results by Business Segment Quarterly results
- Main data of each business
- Historical Changes in Dubai Crude Oil Price
- Diesel Fuel Export and Margin Environment
- Market Condition of Ethylene Products and Aromatic Products

### P.27-31 [FY2017 Full-Year Forecast]

- -Outlook (Year on Year)
- Analysis of Changes in Consolidated Ordinary Income (excl. impact of inventory valuation) from FY2016
- -Outlook by business segment, Precondition of Crude Oil Price and Exchange Rate, and Business Sensitivity
- -Outlook by business segment, Changes from the previous announcement and Highlights of Consolidated Capital Expenditures

### P.32-44 Overview of the Cosmo Energy Group (Business Outline)

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

# Supplementary Information of 2Q FY2017 Results

Unit: thousand KL

						Office	· IIIOusaiiu NL
No.			2QFY2017 Results	2QFY2016 Results	Changes	FY2017 Forecast	FY2017 forecast changes from FY2016
1	Selling volume in Japan	Gasoline	2,797	2,765	101.1%	5,606	101.1%
2		Kerosene	386	392	98.5%	1,765	97.0%
3		Diesel fuel	2,112	2,009	105.2%	4,193	101.8%
4		Heavy fuel oil A	635	602	105.6%	1,430	100.7%
5		Sub-Total	5,930	5,768	102.8%	12,994	100.7%
6		Naphtha	3,030	2,757	109.9%	6,277	104.2%
7		Jet fuel	220	235	93.3%	481	92.5%
8		Heavy fuel oil C	584	708	82.5%	1,119	81.7%
9		inc. Heavy fuel oil C for electric	158	241	65.3%	305	69.1%
10		Total	9,763	9,468	103.1%	20,871	100.2%
11	Export volume (including bond sales)	Middle distillates (Jet, Kerosene/Disel fuel)	437	776	56.3%	887	67.1%
12		Other	1,659	1,751	94.7%	3,261	90.0%
13		Sub-Total	2,097	2,528	82.9%	4,148	83.9%
14	Total		11,860	11,996	98.9%	25,019	97.1%

[1]	] Dubai Crude oil price, Exchange Rate and CDU operating ratios								
No.			2Q FY2017 Results	2Q FY2016 Results	Changes				
1	Dubai crude oil price (USD/B)		50	43	7				
2	JPY/USD exchange	e rate (yen/USD)	111	105	6				
3	CDU operating ratio	(Calendar Day) *1	94.7%	83.8%	10.9%				
4		(Streaming Day) *1,2	99.7%	94.0%	5.7%				

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

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

[2] Crude oil production volume									
	2Q FY2017 Results	2Q FY2016 Results	Chai	nges					
Cosmo Energy Exploration & Production Co., Ltd. (B/D)	38,100	41,506	-3,406	91.8%					

<sup>\*1)</sup> 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.

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

<sup>\*3)</sup> 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, 2016)

Crude Reserves Estimate (working interest base	Crude Reserves Estimate (working interest base) (*1)							
	mmbls							
Total Proved (*2) and Probable Reserves (*3)	154.0	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 23 years	Note: The daily average crude production based on working interest reached 19 thousands bpd for FY2016 (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 FY2017 Results - Changes from 2Q FY2016

Unit: billion yen

No.		Net Sales O		Operating Income				Ordinary ( excluding inventory valu market n	impact of ation, cost or
			Changes from 2QFY2016		Changes from 2QFY2016		Changes from 2QFY2016		Changes from 2QFY2016
1	Petroleum business	1,032.7	90.7	13.4	7.1	14.4	12.8	20.3	31.5
2	Petrochemical business	211.5	60.0	12.8	10.4	16.7	12.1	16.7	12.4
3	Oil E&P business	25.1	4.8	7.8	2.9	9.0	2.7	9.0	2.7
4	Other	18.8	-8.4	1.2	1.1	0.9	1.0	0.9	1.0
5	Adjustment	-153.8	-36.6	2.9	-0.2	2.4	0.3	2.4	0.3
6	Total	1,134.3	110.5	38.1	21.3	43.4	28.9	49.3	47.9

### Cosmo Energy Group Companies (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.



Unit: billion yen

				FY2017				017
			1Q (Ap	rJun.)	2Q (Jul	lSep.)	(AprSep.2017)	
No			Ordinary income	Ordinary income exc. Impact of Inventory valuation	Ordinary income	Ordinary income exc. Impact of Inventory valuation	Ordinary income	Ordinary income exc. Impact of Inventory valuation
1		Total	15.0	23.3	28.4	26.0	43.4	49.3
2		Petroleum business	-0.4	7.9	14.8	12.4	14.4	20.3
3	egment	Petrochemical business	8.3	8.3	8.4	8.4	16.7	16.7
4	이 Cil E&P business (*1)		5	.4	3	.6	9.0	
5		Other (*2)	1	.7	1	.6	3.	.3

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

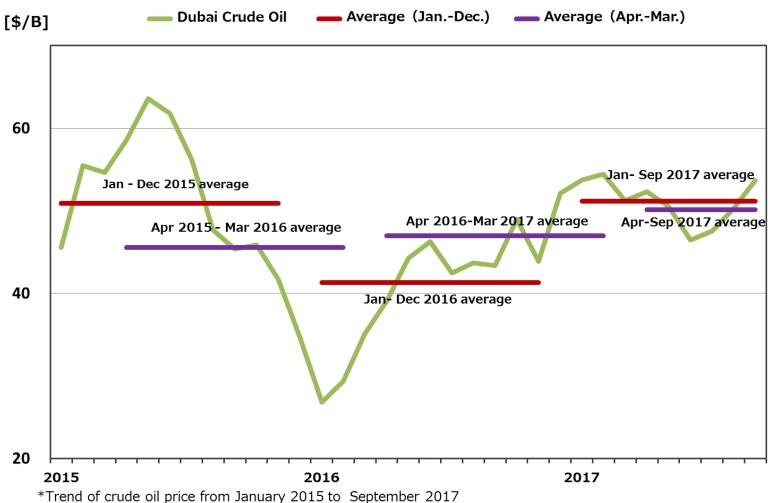
### [Reference] Precondition

		FY2017					
		JanMar.	AprJun.	JulSep.			
1	Crude oil (Dubai) \$/B	53	50	51			
2	JPY/USD exchange rate ¥/\$	114	111	111			

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

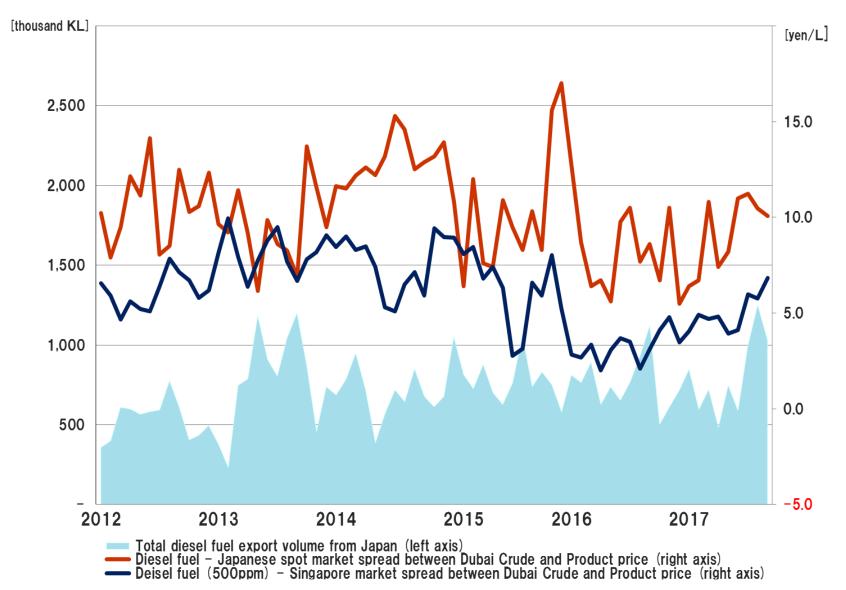
etroleum business						
(1) Refinery Operating Ratio						
	FY2012	FY2013	FY2014	FY2015	FY2016	2Q FY201
CDU operating ratio (Calender Day base) *1	55.6%	69.5%	84.0%	83.2%	88.3%	94.7
(2) Number of SSs by Operator Type						
	FY2012	FY2013	FY2014	FY2015	FY2016	2Q FY20
Subsidiary	914	899	881	920	895	8
Dealers	2,411	2,329	2,252	2,134	2,062	2,0
Total	3,325	3,228	3,133	3,054	2,957	2,9
Number of Self-Service SSs *2	999	1,011	1,031	1,036	1,038	1,0
(3) "Cosmo The Card" - Number of credit	cards in force	& Accumulativ	e number of co	ontracted auto	lease	
	FY2012	FY2013	FY2014	FY2015	FY2016	2Q FY20
Cosmo The Card (million cards) *2	4.10	4.20	4.31	4.39	4.44	4.
Auto lease (Units) *2	5,001	11,734	19,040	27,401	37,077	41,4
I E&P business						
Crude oil production volume						
	FY2012	FY2013	FY2014	FY2015	FY2016	2Q FY20
Cosmo Energy E&P Co., Ltd. (B/D) *3	41,555	36,842	38,031	39,201	39,032	38,1
nd power generation Business						
Wind power generation capacity (ten thous	and kW)					
	FY2012	FY2013	FY2014	FY2015	FY2016	2Q FY20
Power generation Capacity*2	14.6	14.6	18.3	18.4	21.1	2

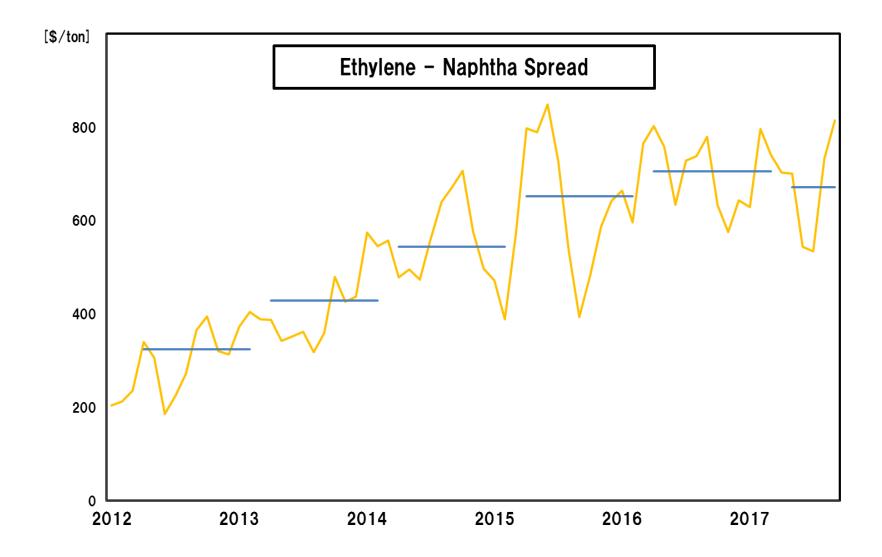
<sup>\*1</sup> April-March results for each fiscal year \*2 At the end of March of each fiscal year \*3 January-December results for each fiscal year



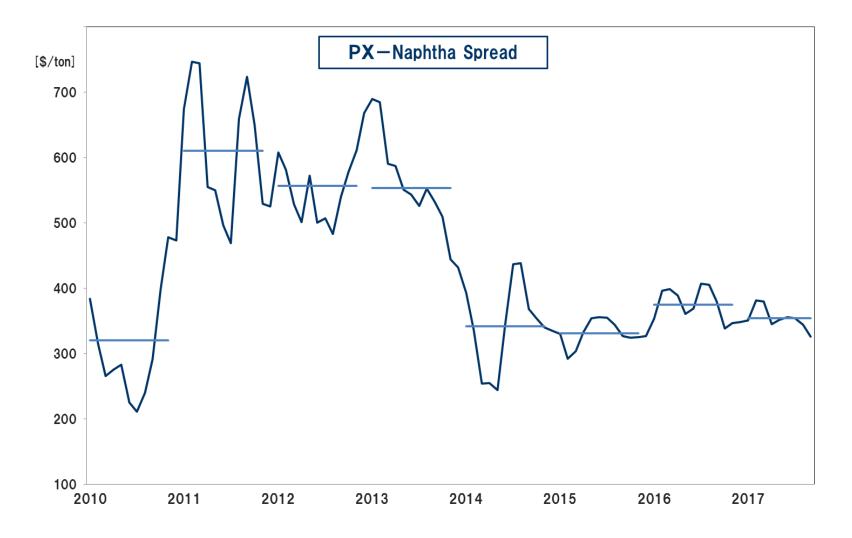
[Reference]

			FY2015			FY2	016		FY2017			
		JanMar.	AprJun.	JulSep.	OctDec.	JanMar.	AprJun.	JulSep.	OctDec.	JanMar.	AprJun.	JulSep.
1	Crude oil (Dubai) (\$/B)	52	61	50	41	30	43	43	48	53	50	51
2	JPY/USD exchange rate $(\frac{y}{s})$	119	121	122	122	115	108	102	109	114	111	111





<sup>(\*)</sup> Horizontal line indicates the average of each fiscal year(Apr-Mar). (The line for 2017 indicates the average from Apr-Sep).



(\*) Horizontal line indicates the average of each calendar year(Jan-Dec). (The line for 2017 indicates the average from Jan-Sep).

## **Supplementary Information of Forecast for FY2017 Performance**

Unit: billion yen

		FY2017	Forecast	FY2016	Results	Changes			
No	No		Ordinary income Ordinary income  Ordinary income  exc. Impact of Inventory valuation  Ordinary income  exc. Impact of Inventory valuation			Ordinary income	Ordinary income exc. Impact of Inventory valuation		
1		Total 80.0 90.0 81.4 42.0				42.0	-1.4	48.0	
2	()	Petroleum business 28.0 38.0		41.2 1.8		-13.2	36.2		
3	egment	Petrochemical business	26.0	26.0	22.2	22.2	3.8	3.8	
4	Each se	ତ୍ତି   Oil E&P business (*1)		6.0	9.3		6.7		
5	)	Other (*2)	10	10.0 8.7		7	1.3		

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

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

No.		FY2017 Forecast	FY2016 Results	Changes
6	Profit attributable to owners of parent	43.0	53.2	-10.2
7	Dividend per Share (Forecast) (yen)	¥50	¥50	_

### [Reference] Precondition

No.		FY2017 Forecast	FY2016 Results	Changes
8	Crude oil (Dubai) (\$/B) (AprMar.)	50	47	3
9	JPY/USD exchange rate (AprMar.)	111	108	3
10	Crude oil (Dubai) (\$/B) (JanDec.)	51	41	10
11	JPY/USD exchange rate (JanDec.)	111	109	2
12	Spread between Ethylene-Naphtha (\$/ton) (AprMar.)	673	706	-33

Key variable factors

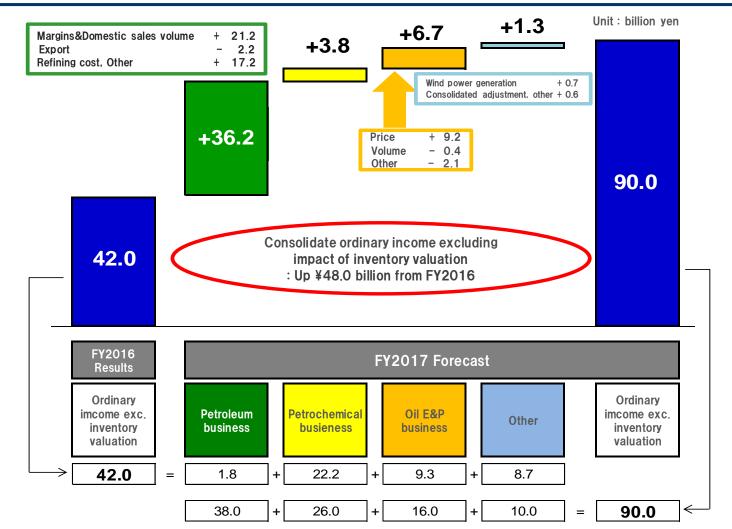
Petroleum business Higher profit expected due to the safe operation and high operating ratios

of the refineries and the achievement of an appropriate margin through

the improvement of the domestic supply-demand balance.

Petrochemical business: Higher profit expected due to the firm market.

Oil E&P business : Higher profit expected due to the higher oil price.



### FY2017 Outlook - Changes from FY2016

Unit: billion yen

No.		Net S	Sales Operating I		g Income	Ordinary Income		Ordinary Income ( excluding impact of inventory valuation , cost o market method)	
			Changes from FY2016		Changes from FY2016		Changes from FY2016		Changes from FY2016
1	Petroleum business	2,216.0	116.1	29.0	-24.7	28.0	-13.2	38.0	36.2
2	Petrochemical business	417.0	38.6	20.0	3.9	26.0	3.8	26.0	3.8
3	Oil E&P business	53.0	8.5	17.0	4.8	16.0	6.7	16.0	6.7
4	Other	57.0	-3.6	5.5	1.2	5.0	1.2	5.0	1.2
5	Adjustment	-311.0	-19.9	5.0	-0.9	5.0	0.1	5.0	0.1
6	Total	2,432.0	139.7	76.5	-15.7	80.0	-1.4	90.0	48.0

### Precondition of crude oil Price and Exchange rate, and Business Sensitivity

### Precondition

No.		FY2017 (AprMar.)
1	Crude oil (Dubai)	\$50/B
2	JPY/USD exchange rate	¥111/\$

### Sensitivity

No.		Item	Crude oil (Dubai)	JPY/USD exchange rate		
1	Petroleum Business	Inventory Impact	2.1 billion yen	1.0 billion yen		
2		Refinery fuel cost etc.	-0.2 billion yen	-0.1 billion yen		
3		Total	1.9 billion yen	0.9 billion yen		
4	Oil E & P Business		0.3 billion yen	0.1 billion yen		

- \* 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.2017 to Mar.2018 adopted for sensitivity figure estimation for the petroleum business and a three-month period of Oct.2017-Dec.2017 for the Oil E&P business

### FY2017 Outlook - Changes from the previous announcement

Unit: billion yen

No.		Net Sales		Operating Income		Ordinary Income		Ordinary Income ( excluding impact of inventory valuation , cost or market method)	
			Changes from the Previous Announcement		Changes from the Previous Announcement		Changes from the Previous Announcement		Changes from the Previous Announcement
1	Petroleum business	2,216.0	-20.0	29.0	17.5	28.0	24.0	38.0	24.0
2	Petrochemical business	417.0	34.0	20.0	10.5	26.0	12.0	26.0	12.0
3	Oil E&P business	53.0	-13.0	17.0	-9.0	16.0	-10.0	16.0	-10.0
4	Other	57.0	-5.0	5.5	0.0	5.0	0.0	5.0	0.0
5	Adjustment	-311.0	-20.0	5.0	0.0	5.0	0.0	5.0	0.0
6	Total	2,432.0	-24.0	76.5	19.0	80.0	26.0	90.0	26.0

### Capital Expenditures, Depreciation, etc.

### Capital expenditures by Business Segment

Unit: billion ven

No.		FY2017 Forecast	Changes
1	Capital expenditures	123.1	-4.5
2	Depreciation expense amount,etc	45.2	-0.7

Unit: billion ven

No.		FY2017 Forecast	FY2017 Previous Announcement	Changes
1	Petroleum	40.5	40.4	0.1
2	Petrochemical	9.1	12.9	-3.8
3	Oil E&P	53.1	52.6	0.5
4	Other	23.2	22.9	0.3
5	Adjustment	-2.8	-1.2	-1.6
6	Total	123.1	127.6	-4.5

### **Business Outline**

[Major crude oil suppliers]\*() Import ratio in FY2016

[Independent exploration and production]

\*( )Contract start

UAE Abu Dhabi (1967~) Qatar (1997~)



[Production volume](result of FY2016)
Approx. 40,000 BD(compared to crude oil

processing: Approx. 10%)

[Reserves (2P)](as of Dec.31,2016) Approx. 154,000,000 BBL Oil Sales

UAE(38.3%), Saudi Arabia(25.2%)
Qatar (10.4%), Kuwait and others(26.1%)

[Refining capacity]

Chiba Refinery 177,000 BD Yokkaichi Refinery 86,000 BD

Sakai Refinery 100,000 BD

Total 400,000 BD \*

[Domestic sales] (result of FY2016)

Gasoline : 5,544 thousand KL Diesel fuel : 4,120 thousand KL

Kerosene/JET : 2,340 thousand KL

Heavy fuel oil A : 1,420 thousand KL

Total : 20,821 thousand KL

[Product export] (result of FY2016)

4,945 thousand KL

[Domestic sales destination]

Dealers affiliated with Cosmo, large users,

Service station: 2,928

Accumulative number of contracted auto lease

: 41,432

(As of Sep. 30, 2017)

### Petrochemical

[Aromatic production capacity]
Para-xylene : 1.18mil tons/year

Benzene : 0.94 mil tons/year

Mixed-xylene : 0.62 mil tons/year

[Olefinic production capacity] Ethylene: 1.29 mil tons/year

(As of Mar 31,2017)



### Renewable energy

[Wind power generation]

EcoPower Co., Ltd. (domestic share approx. 6%)

Power generation capacity: 211,300 kW

Number of power generators : 157 (23areas)

(\*) Including the supply of the petroleum

with the business alliance.

product/semi product (37,000 bbls/day

(Refining capacity: As of Mar 31,2017)

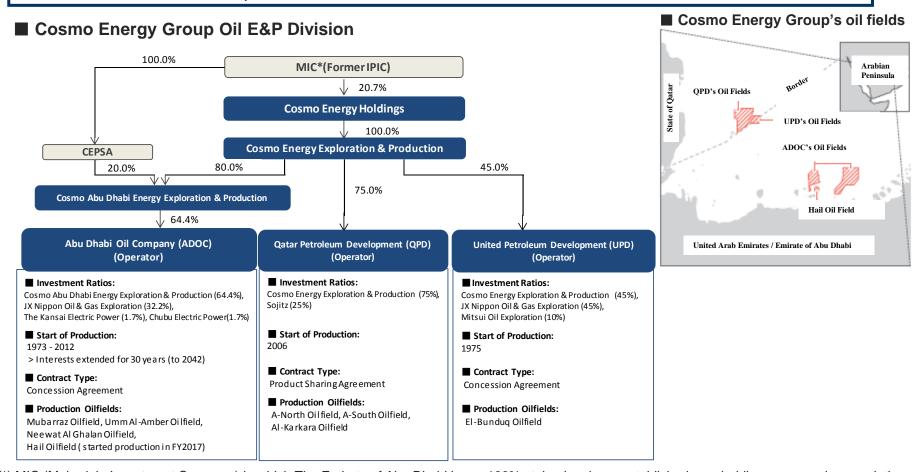
equivalent) from Showa Shell Sekiyu

(As of Sep. 30, 2017)

[Solar power generation]

CSD Solar(Joint Venture Company)
Generation capacity: 24,000 kw

- ✓ 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.
- ✓ The commencement of production from the Hail Oil Field in FY 2017.



(\*) 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,

Long-term Stable Production

Consideration of joint development with Cepsa

: 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) (see page 36)

> Loans provided by Japanese public institutions (JBIC) with credit of the operator (ADOC)

### ■ Growth Strategy

- At peak production, the Hail Oil Field is expected to reach production capacity equivalent to the three existing oilfields of ADOC (see page 36)
- > Strategic comprehensive alliance with MIC(former IPIC)-owned Cepsa, deliberating new oilfield development with Abu Dhabi National Oil Company and CEPSA (see page 37)

### ■ 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)
- > Countries are politically stable, representing minimal country risks

[Oil E&P Business] Growth Strategy – Production volume at three Operating Companies will be 1.5 times as much when production volume at the Hail Oil Field peaks 36

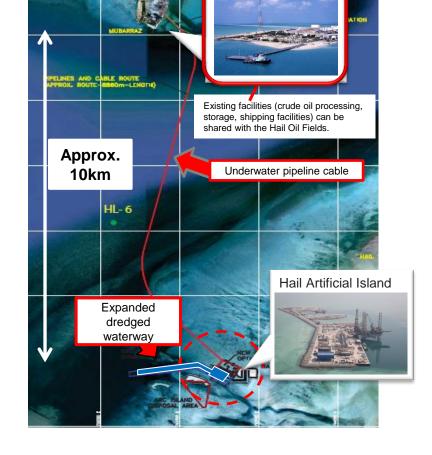
- ✓ Commenced production at the Hail Oil Field and aim for full production at an early stage.
- ✓ The Hail Oil Filed investment has been curbed with the shared use of existing oil processing, storage and shipping facilities (Estimated savings of 300-400 million dollars), and after the start of production, per unit operating costs are expected to decline for the increment of production volume.

### Production commencement of the Hail Oil Field



### Development Schedule for the Hail Oil Field

Main Items		FY2016	FY2017	
Water Channel Dredging Artificial Island Construction	-			
	Disposal Wells (2 in total)			
Well Drilling	Delineation Wells (2 in total)		Conversion to Production Wells	
	Production Wells (8 in total)			
Surface	Hail Site			
Facilities EPC (*) Work	Mubarraz Island			
Start of Production	-			



Hail Oil Field and existing shipping terminal

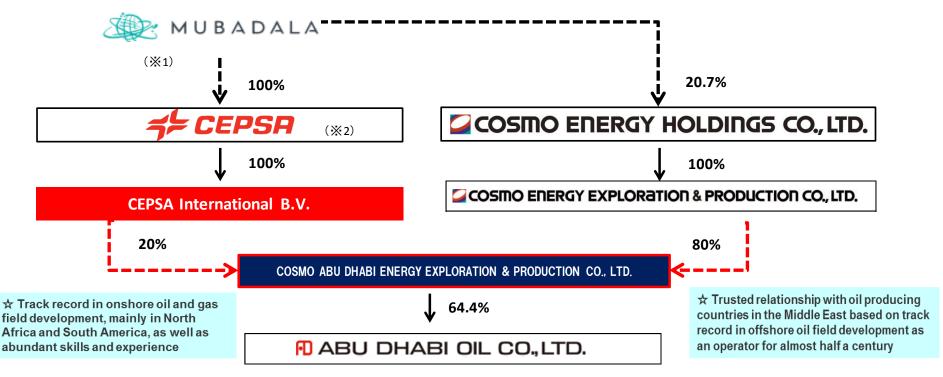
(Mubarraz Island)

Mubarraz Island

<sup>(\*)</sup> Disposal Wells: Wells for the disposal of mud and water generated in the drilling process

<sup>(\*)</sup> EPC: Engineering, Procurement and Construction

- Pursuing Synergy Through Enhancement of Alliance with CEPSA
- ✓ Cosmo aims to reinforce and expand the strategic partnership with CEPSA by transferring part of shares of newly established upstream subsidiary "Cosmo Abu Dhabi Energy Exploration& Production" to CEPSA, which is in line with the "Further strengthen alliances with IPIC(currently MIC)" policy stipulated as part of the 5th Consolidated Medium-Term Management Plan.
- ✓ Cosmo and CEPSA, as Abu Dhabi family companies, is deliberating to obtain new interests, provide sales support of crude oil and product marketing and retail, and will consider joint ventures with Maruzen Petrochemical.



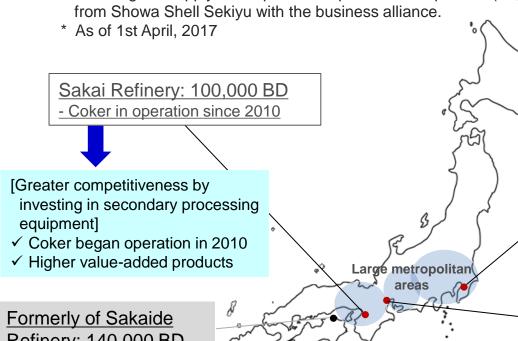
(\*1) MIC (Mubadala Investment Company) in which The Emirate of Abu Dhabi has a 100% stake ,has been established as a holding company in association with the business combination of IPIC (International Petroleum Investment Company), and MDC (Mubadala Development Company).

(\*2) Major comprehensive oil company of Spain.

- FY2016: Commencement of a two-year long run at the Chiba Refinery
  - → Improvement in earnings: ¥7 billion
- FY2017: Business alliance with Showa Yokkaichi Sekiyu → Synergy for Cosmo: ¥1 billion per year
- FY2018: Integration of Chiba refineries of the Company and JXTG → 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)



### Chiba Refinery: 177,000 BD

- Keiyo Seisei JV G.K. established with TonenGeneral Sekiyu (currently JXTG)
- After completion of construction of pipelines, Synergy for both company: ¥10billion/year (FY2018~)

### Yokkaichi Refinery: 86,000 BD

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

Refinery: 140,000 BD Closed in July 2013



[Conversion to an oil terminal] Streamlining effect: About ¥10 billion

- ✓ Assume that synergies between both companies will be 10 billion yen/year (1 billion yen/year before the completion of pipelines).
- ✓ Establish a refinery with top-class competitiveness in Asia.

### Establishment of Keiyo Seisei JV G.K. (January 2015)

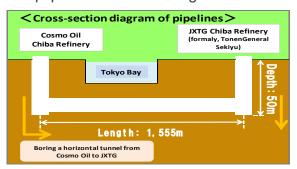
- Investment ratio: each company to take a 50% stake
- Business: development of a production plan for both refineries

### Formal agreement on the construction of pipelines

- Construction work to started in June 2015
  - ⇒ The horizontal tunnel passed through in March 2017 (see the chart in the bottom right corner).
- Nine pipelines to be laid
- Each of the two companies to provide half of the construction costs (each assumed to pay ¥15 billion)
- The project has been chosen as a project to be subsidized by the Ministry of Economy, Trade and Industry. (annual one-year application)

### Integration of the two refineries

 Upon the completion of the pipelines and after integration of refining equipment, the No.1 CDU that Cosmo Oil currently holds will be disposed of for the optimization of the refinery equipment after the integration of the equipment with JV.

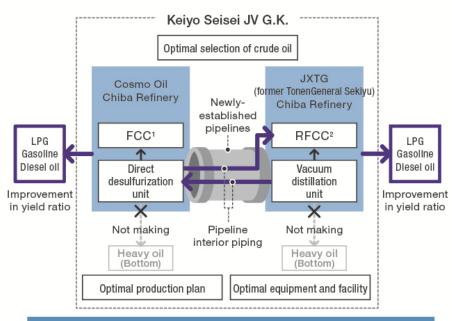


### An example of Synergy

### **Bottomless refinery**

(Improve refinery economics by maximizing production of gasoline and diesel oil)

### ¥10 billion in JV synergy



Becoming a top-class competitive refinery in Asia

- \* 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.

Strengthening competitiveness through an alliance with Kygnus Sekiyu K.K.

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

### Kygnus Sekiyu K.K.



- Sales Volume3,860 thousand KL
- Number of Service stations 474

(As of Mar.31,2017)

### Capital and Business Alliance

### **Cosmo Energy Group**



- Domestic Sales Volume 20,821 thousand KL
- Number of Service stations 2,957

(As of Mar.31,2017)



Service station operators



Factory etc.



**Cosmo Oil Refineries** 

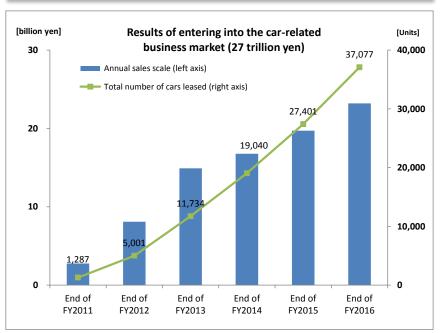
(Chiba, Yokkaichi, Sakai)

- Aim at strengthening SS profitability by converting to "car life value proposition" by positioning the individual leasing business at the core.
- Aim to enter into the entire market of car-related business (approx. 36 trillion yen) based on gasoline and diesel fuel (approx. 9 trillion yen)
- Annual sales scale exceeded 23 billion yen (as of the end of FY2016)

### Size of target market

#### Entire market of car-[trillion yen] related businesses: 40.0 approx. 36 trillion yen 30.0 Safety inspectio Car-related businesses: approx. 9 trillion yen 27 trillion yen 20.0 The domestic market of car-related businesses is Car sales: Approx. expected to grow 13 trillion yen 9 trillion yen steadily regardless of power source (gasoline, 10.0 electricity, etc.) Gasoline and Gasoline and diesel fuel: diesel fuel: approx. 9 trillion ven 9 trillion ven 0.0 Before launching After launching "Cosmo Smart Vehicle" "Cosmo Smart Vehicle"

### Results of "Cosmo Smart Vehicle" (\*)

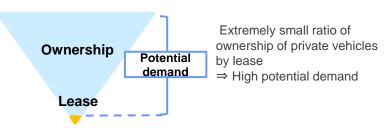


(\*) "Cosmo Smart Vehicle": car sale business based on auto-lease

- ✓ 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, 2017
- 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.

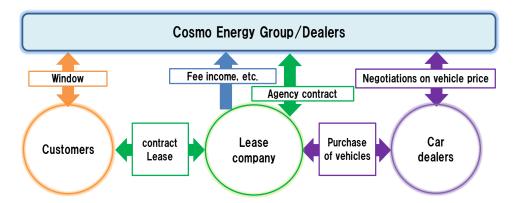
### Win-win business model

Customers

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

Lease companies: Capture new customers

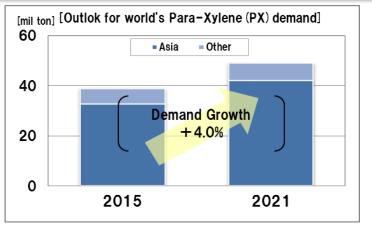
Cosmo, dealerships: Secure revenue sources that are not solely dependent on fuel oil





### **Expected global demand for petrochemical products**





Source: Global Demand Trends for Petrochemical Products of the Ministry of Economy, Trade and Industry (2015-2021)

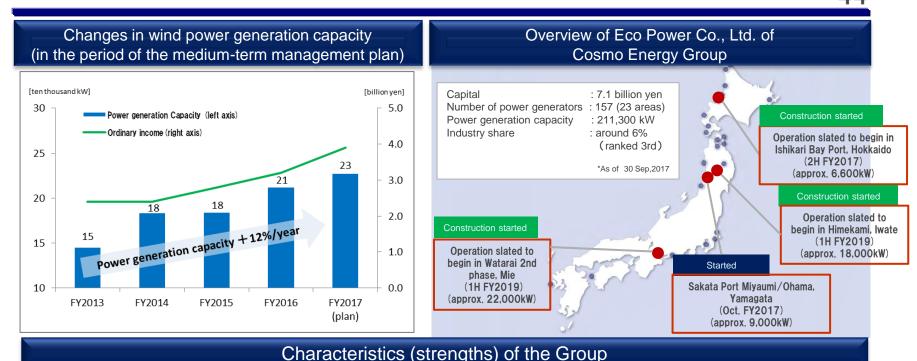
### Strengths of Cosmo Energy Group HCP (\*) - Adjacent to the area of demand(China) - One of the highest PX production capacities in the world (world's highest demand for para-xylene) Maruzen Petrochemical (Chiba plant) - Located in Keiyo industrial complex, one of the largest of its kind in the world - One of the highest ethylene production capacities in Japan - High capacity utilization of competitive Para-xylene devices (Part of ethylene is exported) Pursue synergy with oil refining Mixed-xylene CM Aroma Maruzen Petrochemical (Yokkaicih plant) Cosmo Matsuvama Oil 0

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

### **Production capacity**

Product		Manufacture	Production capacity	
Olefin-based	Ethylene	Maruzen Petrochemical	* 1.29 mil t/year	
Aroma-based	Para-xylene	Hyundai Cosmo PetroChemical	1.18 mil t/year	
	Benzene	Maruzen Petrochemical	0.60 mil t/year	
		Hyundai Cosmo PetroChemical	0.25 mil t/year	
		Cosmo Matsuyama Oil	0.09 mil t/year	
		Total	0.94 mil t/year	
	Mixed-xylene	Cosmo Oil (Yokkaichi Refinery)	0.30 mil t/year	
		CM Aroma	0.27 mil t/year	
		Cosmo Matsuyama Oil	0.05 mil t/year	
		Total	0.62 mil t/year	
		Aroma-based, total	2.74 mil t/year	

\* Includes production capacity of Keiyo Ethylene (55% owned, consolidated subsidiary of Maruzen Petrochemical) [Wind power generation Business] Achieving Stable Earnings in a Market Where Demand Is Expected to Expand, Using the FIT Scheme - Power Generation Capacity Growing 12% per Year on Average 44



- 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 (\*1).

  (\*1) The offshore wind power generation in Akita is a large-scale offshore wind power generation project led by the private sector.

### 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 2015 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: "On institutional reform for promoting the introduction of renewable energy" of the Agency for Natural Resources and Energy in November 2015
  - (\*3) Identification of suitable sites (2 to 3 years) → Environmental assessment (4 to 5 years) → Construction work (1 to 2 years) → Start of operation

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All statements other than statements of historical fact may be forward-looking statements. Statements concerning proven and probable reserves and resource estimates may also be deemed to constitute forward-looking statements and reflect conclusions that are based on certain assumptions that the reserves and resources can be economically exploited. Any statements that express or involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions or future events or performance (often, but not always, using words or phrases such as "seek", "anticipate", "plan", "continue", "estimate", "expect, "may", "will", "project", "predict", "potential", "targeting", "intend", "could", "might", "should", "believe" and similar expressions) are not statements of historical fact and may be "forward-looking statements". Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in such forward-looking statements. The Company believes that the expectations reflected in those forward-looking statements are reasonable, but no assurance can be given that these expectations will prove to be correct and such forward-looking statements should not be unduly relied upon. The Company does not intend, and does not assume any obligation, to update these forward looking statements, except as required by applicable laws. These forward-looking statements involve risks and uncertainties relating to, among other things, changes in oil prices, results of exploration and development activities, uninsured risks, regulatory changes, defects in title, availability of materials and equipment, timeliness of government or other regulatory approvals, actual performance of facilities, availability of financing on reasonable terms, availability of third party service providers, equipment and processes relative to specifications and expectations and unanticipated environmental impacts on operations. Actual results may differ materially from those expressed or implied by such forward-looking statements.

