

# Cosmo Energy Holdings Co., Ltd. Results For Fiscal 2018

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May 9, 2019

- ✓ The 6th Consolidated Medium-Term Management Plan
- ✓ FY2018 Review
- ✓ Dividend policy for FY2018

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- ✓ Results for FY2018
- ✓ Forecast for FY2019 Performance

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- ✓ We started the 6<sup>th</sup> Consolidated Medium-Term Management Plan(FY2018-FY2022) with the slogan,“Oil & New Everything About Oil-And Beyond”.
- ✓ Increase earning power and improve the financial position to achieve a goal of Net worth and Net D / E ratio of 1.0-1.5 times that can withstand changes in the market environment at an early stage.

## Basic Policy

### Secure profitability to enable reinvestment

- ✓ Firm a system of safe, stable operation in oil refining business
- ✓ Take action ahead of the IMO regulations
  - ➔ Make refineries not produce high – sulfur fuel oil and 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.

### 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

### 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)

### 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.

## Management Goals (FY2022)

### 【Management Goals (FY2022)】

(Unit: billion yen)

|   |  |                          |
|---|--|--------------------------|
| 1 | Ordinary profit<br>(excluding impact of inventory valuation) | Over 120.0               |
| 2 | Profit attributable to owners of parent                      | Over 50.0                |
| 3 | Free cash flow<br>(FY 2018 - FY 2022 Five years total)       | Over 150.0               |
| 4 | Net worth<br>( Net worth ratio )                             | Over 400.0<br>(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.

Although affected by regular maintenance at refineries 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, Ordinary profit excluding the impact of inventory valuation renewed a record high.

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#### [Petroleum business]

- ✓ While proper margin was secured, regular maintenance at refineries and partial trouble of equipment and the allowance of the cost for future regular maintenance at refineries affected.  
⇒ Ordinary profit excluding the impact of inventory valuation was ¥ 24.9 billion.  
(down ¥ 12.9 billion year on year).

#### [Petrochemical business]

- ✓ The business was affected by the downturn in market conditions and a decrease in sales volume caused by regular maintenance at a plant.  
⇒ Ordinary profit was ¥ 15.3 billion (down ¥ 15.1 billion year on year).

#### [Oil exploration and production business]

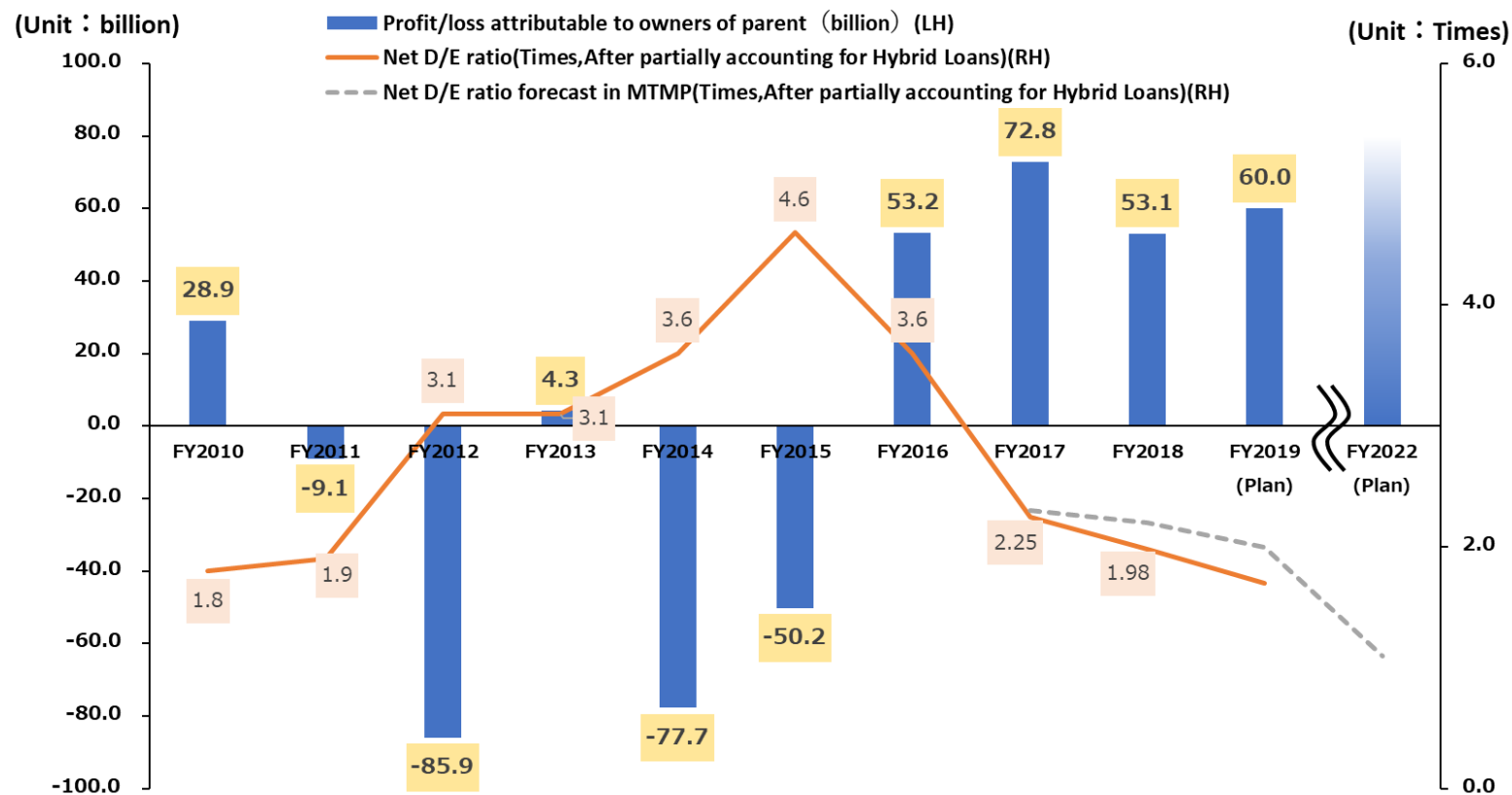
- ✓ The Hail Oil Field has been continuing full production since January 2018.  
⇒ Ordinary profit was ¥ 56.9 billion (up ¥ 38.6 billion year on year).

#### [Key Points in Financial Results]

- ✓ Chiefly thanks to the higher earnings of the oil exploration and production business, Consolidated ordinary profit excluding the impact of inventory valuation reached ¥107.4 billion(up ¥11.5 billion year on year)  
(Record high profit)
- ✓ Consolidated ordinary profit was ¥96.7 billion(down ¥20.2 billion year on year),Net profit was ¥53.1 billion (down ¥19.7 billion year on year) due to the recording of deferred tax assets.
- ✓ The Net worth ratio was 16.5% (up 2.4 points from the end of the previous year), and the Net D / E ratio was 1.98 times (Improved 0.27 points from the end of the previous year).

# Dividend policy for FY2018

- ✓ We plan to pay a dividend of 80 yen per share (more 30 yen than previous announcement) considering that the Net D / E ratio became below two times at the end of FY2018 because the we are currently progressing our improvement of financial strength faster than expected when we developed the consolidated medium-term management plan.
- ✓ The level of our earnings improved steadily, and also we have the additional opportunities after FY2019 such as the response to the IMO regulations and the supply of fuel oil to Kygnus Sekiyu.
- ✓ We will enhance the shareholder returns while considering the balance with our financial condition from now onward.



# Highlights of Result for FY2018

Unit: billion yen

| No.         | Item   | FY2018<br>(Apr.-Mar.2019) | FY2017<br>(Apr.-Mar.2018) | Changes | (Rate of change) | (Ref)<br>Forecast FY2019 |
|-------------|--|---------------------------|---------------------------|---------|------------------|--------------------------|
| 1           | Net sales  | 2,770.4                   | 2,523.1                   | 247.3   | +10%             | 2,913.0                  |
| 2           | Operating profit   | 94.7                      | 111.9                     | -17.2   | -15%             | 109.0                    |
| 3           | Non-operating<br>income/expenses, net                          | 2.0                       | 5.0                       | -3.0    |                  | 2.0                      |
| 4           | Ordinary profit  | 96.7                      | 116.9                     | -20.2   | -17%             | 111.0                    |
| 5           | Extraordinary<br>income/losses, net                            | -0.7                      | -7.6                      | 6.9     |                  | 3.0                      |
| 6           | Income taxes   | 29.9                      | 25.2                      | 4.7     |                  | 43.0                     |
| 7           | Profit attributable to non-<br>controlling interests           | 12.9                      | 11.3                      | 1.6     |                  | 11.0                     |
| 8           | Profit attributable to owners of<br>parent                     | 53.1                      | 72.8                      | -19.7   | -27%             | 60.0                     |
| 9           | Impact of inventory valuation                                  | -10.7                     | 21.0                      | -31.7   |                  | 5.0                      |
| 10          | Ordinary profit excluding the<br>impact of inventory valuation | 107.4                     | 95.9                      | 11.5    |                  | 106.0                    |
| 11          | Dubai crude oil price (USD/B)<br>(Apr.-Mar.)                   | 69                        | 56                        | 13      |                  | 65                       |
| 12          | JPY/USD exchange rate<br>(yen/USD)(Apr.-Mar.)                  | 111                       | 111                       | -       |                  | 110                      |
| 【Reference】 |  |                           |                           |         |                  |                          |
| 13          | Dubai crude oil price (USD/B)<br>(Jan.-Dec.)                   | 69                        | 53                        | 16      |                  | 65                       |
| 14          | JPY/USD exchange rate<br>(yen/USD)(Jan.-Dec.)                  | 110                       | 112                       | -2      |                  | 110                      |

[FY2018 Results] Outline of Consolidated Ordinary Profit by business segment  
 – Changes from FY2017

Unit : billion yen

| No |                | FY2018<br>(Apr. – Mar. 2018) |  | FY2017<br>(Apr. – Mar. 2017) |  | Changes         |  |       |
|----|----------------|------------------------------|--|------------------------------|--|-----------------|--|-------|
|    |                | Ordinary profit              | Ordinary profit<br>exc. the Impact of<br>Inventory valuation | Ordinary profit              | Ordinary profit<br>exc. the Impact of<br>Inventory valuation | Ordinary profit | Ordinary profit<br>exc. the Impact of<br>Inventory valuation |       |
| 1  | Total          | 96.7                         | 107.4  | 116.9                        | 95.9   | -20.2           | 11.5   |       |
| 2  | (Each segment) | Petroleum business           | 14.2   | 24.9                         | 58.8   | 37.8            | -44.6  | -12.9 |
| 3  |                | Petrochemical business       | 15.3   |                              | 30.4   |                 | -15.1  |       |
| 4  |                | Oil E&P business (*1)        | 56.9   |                              | 18.3   |                 | 38.6   |       |
| 5  |                | Other (*2)                   | 10.3   |                              | 9.4  |                 | 0.9  |       |

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

(\*2) Including consolidated adjustment



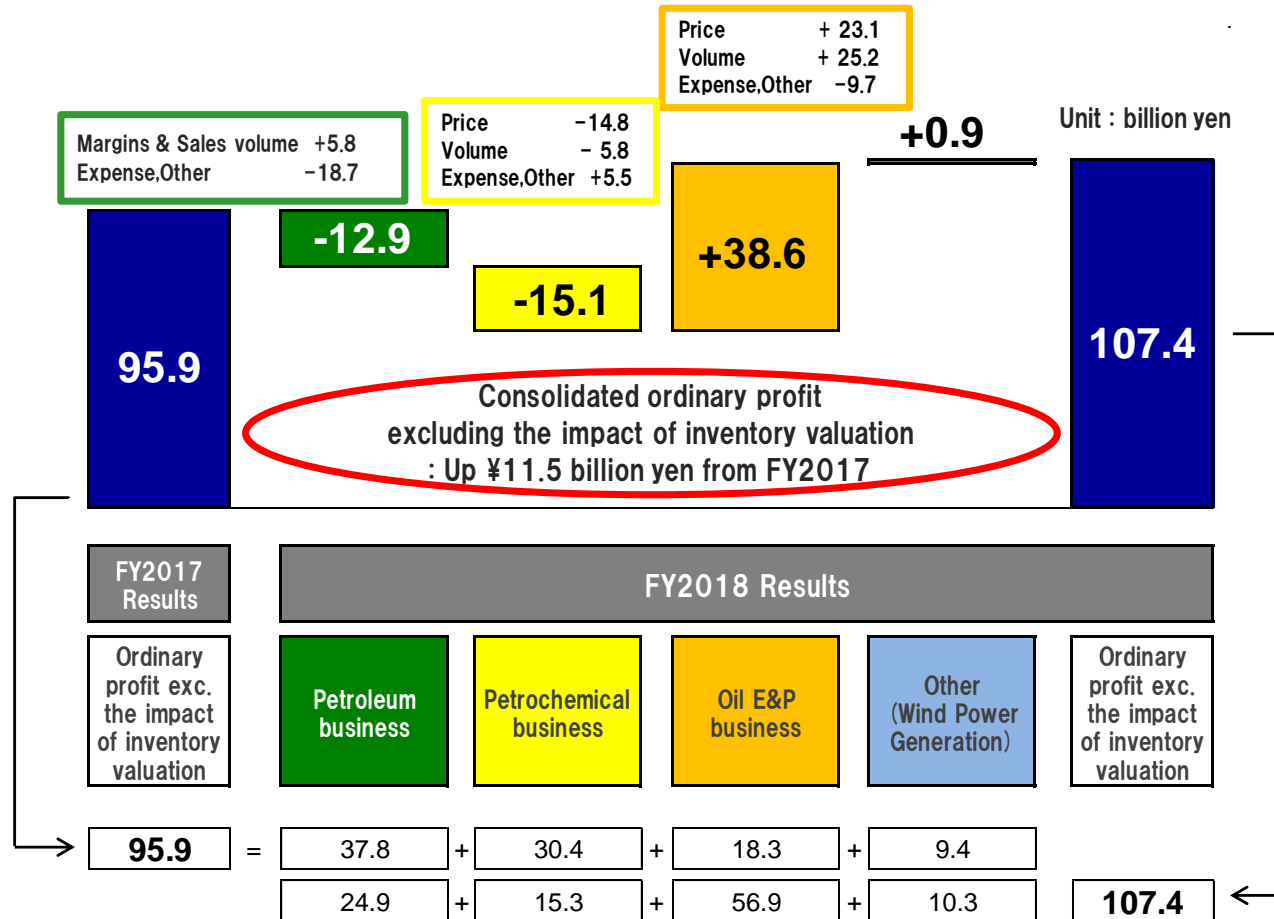
# [FY2018 Results] Consolidated Ordinary Profit (Excluding the impact of inventory valuation) - Analysis of Changes from FY2017



**Petroleum business** :While securing an appropriate margin based on the improvement in the domestic supply-demand balance, profit decreased chiefly due to regular maintenance at refineries, partial trouble of equipment and the allowance of the cost for future regular maintenance at refineries.

**Petrochemical business** :Profit decreased mainly due to the downturn in market conditions and a decrease in sales volume caused by regular maintenance at a plant.

**Oil E&P business** :Profit increased due to an increase in oil production thanks to the commencement of the Hail Oil Field's full production.



### Consolidated Cash Flows

Unit: billion yen

| No |  | FY 2018<br>(Apr.-Mar.2019) | FY 2017<br>(Apr.-Mar.2018) |
|----|--|----------------------------|----------------------------|
| 1  | Cash flows from operating activities           | 90.5                       | 192.6                      |
| 2  | Cash flows from investing activities           | -84.5                      | -96.4                      |
| 3  | Free cash flow (1+2)                           | 6.0                        | 96.2                       |
| 4  | Cash flows from financing activities           | -20.5                      | -76.8                      |
| 5  | Cash and cash equivalents at end of the period | 40.7                       | 55.1                       |

### Consolidated Balance Sheets

Unit: billion yen

| No |   | FY2018<br>(As of Mar. 31, '19) | FY2017<br>(As of Mar. 31, '18) | Changes             |
|----|---|--------------------------------|--------------------------------|---------------------|
| 1  | Total Assets  | 1,702.3                        | 1,688.3                        | 14.0                |
| 2  | Net assets  | 401.9                          | 356.1                          | 45.8                |
| 3  | Net worth   | 281.1                          | 238.7                          | 42.4                |
| 4  | Net worth ratio   | 16.5%                          | 14.1%                          | Up 2.4points        |
| 5  | Net interest-bearing debt *1  | 644.7                          | 635.8                          | 8.9                 |
| 6  | Net Debt Equity Ratio (times) (after partially accounting for Hybrid Loan) *2 | 1.98                           | 2.25                           | Improved 0.27points |

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

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

## Capital Expenditures, Depreciation, etc.

## Capital Expenditures by Business Segment

Unit: billion yen

| No. |                                  | FY2018 Results | Change from FY2017 |
|-----|----------------------------------|----------------|--------------------|
| 1   | Capital expenditures             | 80.4           | -28.7              |
| 2   | Depreciation expense amount, etc | 54.2           | 12.1               |

Unit: billion yen

| No. |               | FY2018 Results | FY2017 Results | Change from FY2017 |
|-----|---------------|----------------|----------------|--------------------|
| 1   | Petroleum     | 33.3           | 30.5           | 2.8                |
| 2   | Petrochemical | 16.7           | 6.0            | 10.7               |
| 3   | Oil E&P       | 23.3           | 49.9           | -26.6              |
| 4   | Other         | 9.0            | 22.3           | -13.3              |
| 5   | Adjustment    | -1.9           | 0.4            | -2.3               |
| 6   | Total         | 80.4           | 109.1          | -28.7              |

# Forecast for FY2019 Performance

Profit attributable to owners of parent is forecasted to increase by securing appropriate proper margins, improving the operating ratio and increasing the sales volume, although the oil exploration and production business is expected to post a decrease in profit due to a controlled decline in the production volume at the Hail Oil Field.

[Petroleum business]

- ✓ Secure proper margin and eliminate the impact of partial trouble of equipment in the previous year.
- ✓ Take action to enhance the capacity of Sakai Refinery's Delayed Coker Unit with an eye on the IMO regulations that are expected to be implemented in 2020, and start to supply the products to Kygnus Sekiyu.

[Petrochemical business]

- ✓ The production volume is expected to increase at Maruzen Petrochemical Co., Ltd., assisted by the elimination of the impact of regular maintenance in the previous year.

[Oil exploration and production business]

- ✓ We plan to decrease the production at the Hail Oil Field for securing the production volume on a long-term basis.

[Wind power generation business]

- ✓ Facilities in Watarai (2nd phase) and Himekami commenced operation in April.

[Full-year forecast]

Profit attributable to owners of parent : ¥ 60.0 billion  
(up ¥ 6.9 billion year on year)

[Reference] Precondition

|   | FY2019 |
|---|--------|
| Dubai crude oil price (USD/B) (Apr.-Mar.) | 65     |
| JPY/USD exchange rate (Apr.-Mar.)         | 110    |

[Dividend policy]

- ✓ We plan to pay a dividend of 80 yen per share in comprehensive consideration of the Group's profitability, financial position, and investment strategy, among other factors.

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

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Unit : billion yen

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

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

(\*2) Including consolidated adjustment

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

## ■ Precondition

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

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

## ■ Sensitivity

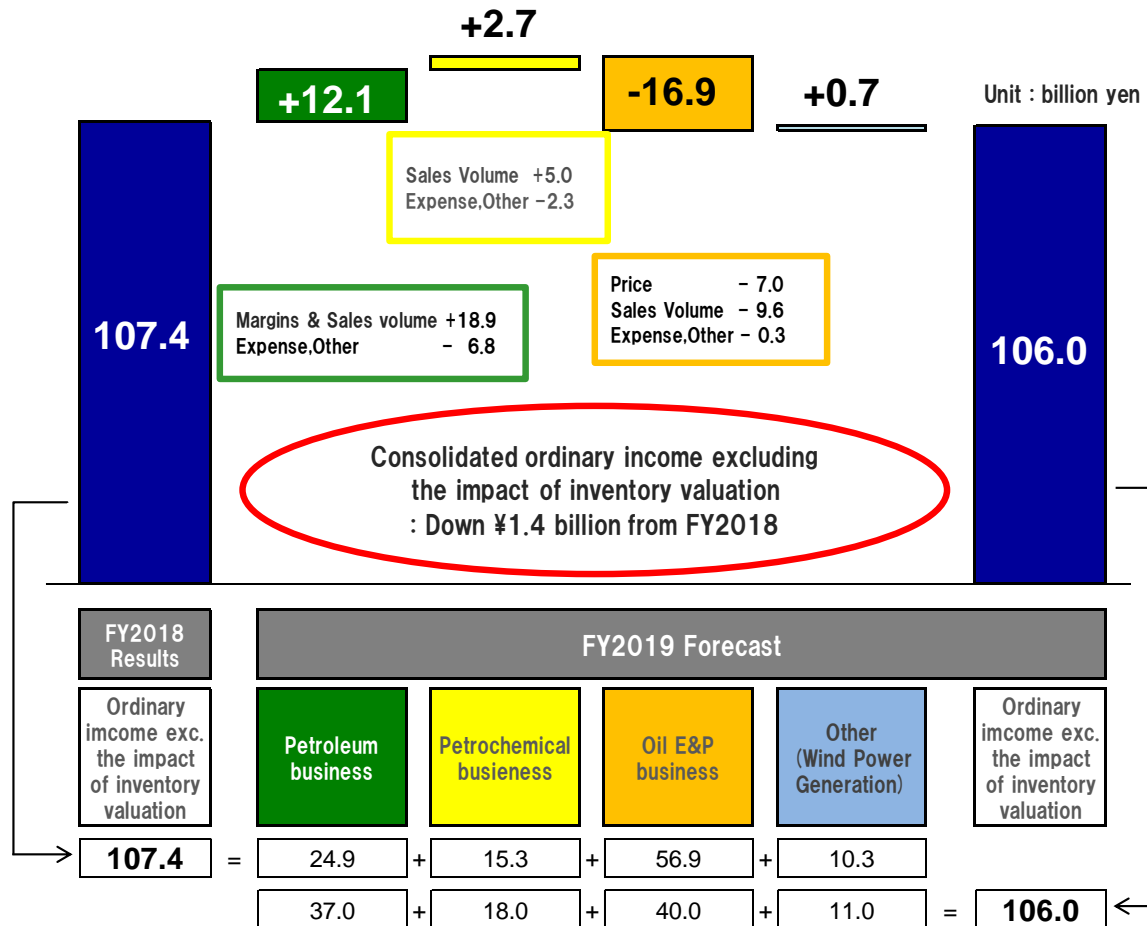
| No. |                    | Item                    | Crude oil (Dubai) | JPY/USD exchange rate |
|-----|--------------------|-------------------------|-------------------|-----------------------|
| 13  | Petroleum Business | Inventory Impact        | 2.0 billion yen   | 1.2 billion yen       |
| 14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

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

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

**Key variable factors**

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



Capital Expenditures. Depreciation, etc.

Unit: billion yen

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

Capital Expenditures by Business Segment

Unit: billion yen

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



# Supplementary Information

## P.16-26 [FY2018 Results] Supplementary Information

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

## P.27-28 Forecast for FY2019 Performance

- Outlook by Business Segment, Changes from FY2018

## P.29-39 Overview of the Cosmo Energy Group (Business Outline)

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

## P.40-59 The 6th Consolidated Medium-Term Management Plan (Announced on March 20,2018)

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

## P.60-63 Zero Coupon Convertible Bonds due 2022 (being bonds with stock acquisition rights) (Announced on December 20,2018)

**Supplementary Information of  
FY2018 Results**

Unit: thousand KL

| No. |                         |   | FY2018<br>Results | FY2017<br>Results | Changes | FY2019   |                                    |
|-----|-------------------------|---|-------------------|-------------------|---------|----------|------------------------------------|
|     |                         |   |                   |                   |         | Forecast | forecast<br>changes from<br>FY2018 |
| 1   | Selling volume in Japan | Gasoline  | 5,643             | 5,582             | 101.1%  | 6,397    | 113.4%                             |
| 2   |                         | Kerosene  | 1,736             | 1,787             | 97.1%   | 2,071    | 119.3%                             |
| 3   |                         | Diesel fuel                                       | 4,529             | 4,281             | 105.8%  | 4,894    | 108.1%                             |
| 4   |                         | Heavy fuel oil A                                  | 1,432             | 1,470             | 97.4%   | 1,546    | 108.0%                             |
| 5   |                         | Sub-Total   | 13,340            | 13,120            | 101.7%  | 14,909   | 111.8%                             |
| 6   |                         | Naphtha   | 5,751             | 6,061             | 94.9%   | 6,690    | 116.3%                             |
| 7   |                         | Jet fuel  | 465               | 459               | 101.4%  | 473      | 101.7%                             |
| 8   |                         | Heavy fuel oil C                                  | 1,009             | 1,246             | 81.0%   | 861      | 85.3%                              |
| 9   |                         | inc. Heavy fuel oil C<br>for electric power       | 176               | 375               | 46.8%   | 86       | 49.0%                              |
| 10  |                         | Total   | 20,566            | 20,885            | 98.5%   | 22,934   | 111.5%                             |
| 11  | Export volume           | Middle distillates<br>(Jet, Kerosine/Diesel fuel) | 344               | 825               | 41.7%   | 650      | 189.2%                             |
| 12  |                         | Bonded products and other                         | 3,209             | 3,368             | 95.3%   | 2,965    | 92.4%                              |
| 13  |                         | Sub-Total   | 3,553             | 4,192             | 84.7%   | 3,615    | 101.8%                             |
| 14  | Total                   |   | 24,119            | 25,077            | 96.2%   | 26,549   | 110.1%                             |

| No. |                     |                            | FY2018<br>Results | FY2017<br>Results | Changes |
|-----|---------------------|----------------------------|-------------------|-------------------|---------|
| 1   | CDU operating ratio | (Calendar Day basis) *1    | 86.1%             | 94.1%             | -7.9%   |
| 2   |                     | (Streaming Day basis) *1,2 | 95.5%             | 99.2%             | -3.7%   |

\*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.

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

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## [1] Crude oil production volume

|   | FY2018<br>Results | FY2017<br>Results | Changes |        |
|---|-------------------|-------------------|---------|--------|
| Cosmo Energy Exploration & Production Co., Ltd. (B/D) | 52,303            | 38,826            | 13,477  | 134.7% |

\*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-December, 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, 2018)

## [2] Crude Reserves Estimate (working interest base) (\*1)

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

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

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

### (\*2) Proved Reserves

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

### (\*3) Probable Reserves

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

FY2018 Results – Changes from FY2017

Unit: billion yen

| No. |                        | Net Sales |                        | Operating Profit |                        | Ordinary Profit |                        | Ordinary Profit<br>(excluding the impact of<br>inventory valuation) |                        |
|-----|------------------------|-----------|------------------------|------------------|------------------------|-----------------|------------------------|---|------------------------|
|     |                        |           | Changes from<br>FY2017 |                  | Changes from<br>FY2017 |                 | Changes from<br>FY2017 |   | Changes from<br>FY2017 |
| 1   | Petroleum business     | 2,526.9   | 234.2                  | 17.5             | -40.5                  | 14.2            | -44.6                  | 24.9  | -12.9                  |
| 2   | Petrochemical business | 458.6     | 0.1                    | 7.1              | -17.9                  | 15.3            | -15.1                  | 15.3  | -15.1                  |
| 3   | Oil E&P business       | 111.7     | 55.4                   | 58.2             | 40.1                   | 56.9            | 38.6                   | 56.9  | 38.6                   |
| 4   | Other                  | 60.2      | 10.2                   | 6.4              | 0.8                    | 6.1             | 1.0                    | 6.1   | 1.0                    |
| 5   | Adjustment             | -387.0    | -52.6                  | 5.5              | 0.3                    | 4.2             | -0.1                   | 4.2   | -0.1                   |
| 6   | Total                  | 2,770.4   | 247.3                  | 94.7             | -17.2                  | 96.7            | -20.2                  | 107.4   | 11.5                   |

Cosmo Energy Group (by Segment)

|                        |   |
|------------------------|---|
| Petroleum business     | Cosmo Oil Co.,Ltd., Cosmo Oil Marketing Co., Ltd., Cosmo Oil Sales Corp, Cosmo Oil Lubricants Co., Ltd.,Sogo Energy Co., Ltd., Gyxis Corporation (owned by the Cosmo Energy Group on the equity method), Kygnus Sekiyu K.K. (owned by the Cosmo Energy Group on the equity method) etc. |
| Petrochemical business | Cosmo Matsuyama Oil Co., Ltd., CM Aromatics Co., Ltd., Maruzen Petrochemical Co., Ltd., Hyundai Cosmo Petrochemical Co., Ltd. (owned by the Cosmo Energy Group on the equity method), etc.  |
| Oil E & P business     | Cosmo Energy Exploration & Production Co., Ltd., Abu Dhabi Oil Co., Ltd., Qatar Petroleum Development Co., Ltd., United Petroleum Development Co., Ltd. (owned by the Cosmo Energy Group on the equity method), etc.  |
| Other                  | Cosmo Engineering Co.,Ltd., Cosmo Trade & Services Co., Ltd., EcoPower Co.,Ltd, etc.  |

## 1. Petroleum business

### (1) Refinery Operating Ratio

|   | FY2013 | FY2014 | FY2015 | FY2016 | FY2017 | FY2018 |
|---|--------|--------|--------|--------|--------|--------|
| CDU operating ratio (Calendar Day basis) *1 | 69.5%  | 84.0%  | 83.2%  | 88.3%  | 94.1%  | 86.1%  |

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

|                               | FY2013 | FY2014 | FY2015 | FY2016 | FY2017 | FY2018 |
|-------------------------------|--------|--------|--------|--------|--------|--------|
| Subsidiary                    | 899    | 881    | 920    | 895    | 885    | 855    |
| Dealers                       | 2,329  | 2,252  | 2,134  | 2,062  | 1,973  | 1,936  |
| Total *2                      | 3,228  | 3,133  | 3,054  | 2,957  | 2,858  | 2,791  |
| Number of Self-Service SSs *2 | 1,011  | 1,031  | 1,036  | 1,038  | 1,034  | 1,048  |

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

|                                   | FY2013 | FY2014 | FY2015 | FY2016 | FY2017 | FY2018 |
|-----------------------------------|--------|--------|--------|--------|--------|--------|
| Cosmo The Card (million cards) *2 | 4.20   | 4.31   | 4.39   | 4.44   | 4.44   | 4.33   |
| Auto lease (Units) *2             | 11,734 | 19,040 | 27,401 | 37,077 | 47,602 | 60,579 |

## 2. Oil E&P business

### Crude oil production volume

|                                     | FY2013 | FY2014 | FY2015 | FY2016 | FY2017 | FY2018 |
|-------------------------------------|--------|--------|--------|--------|--------|--------|
| Cosmo Energy E&P Co., Ltd. (B/D) *3 | 36,842 | 38,031 | 39,201 | 39,032 | 38,826 | 52,303 |

## 3. Wind power generation business

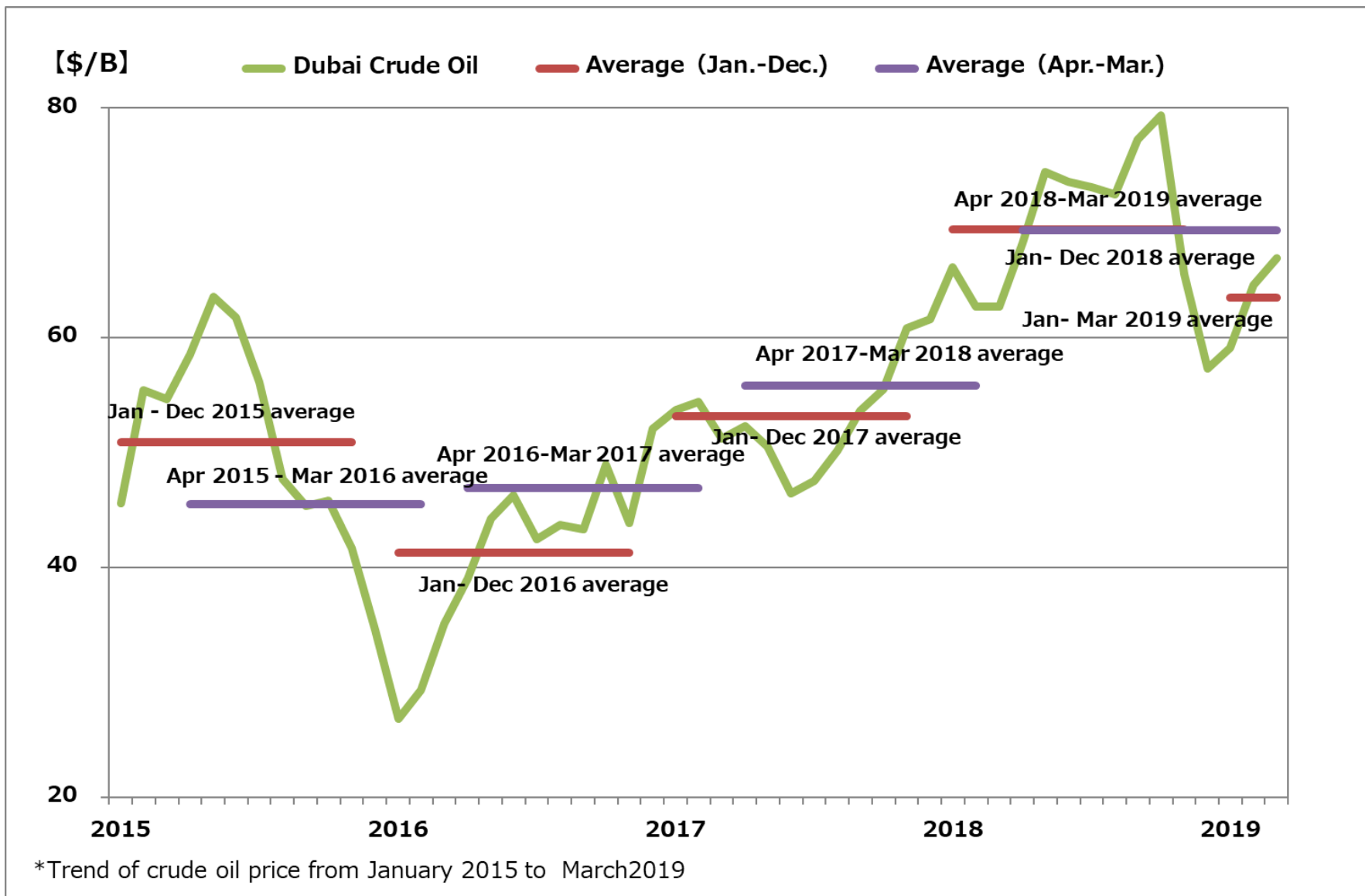
### Wind power generation capacity (ten thousand kW)

|                             | FY2013 | FY2014 | FY2015 | FY2016 | FY2017 | 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

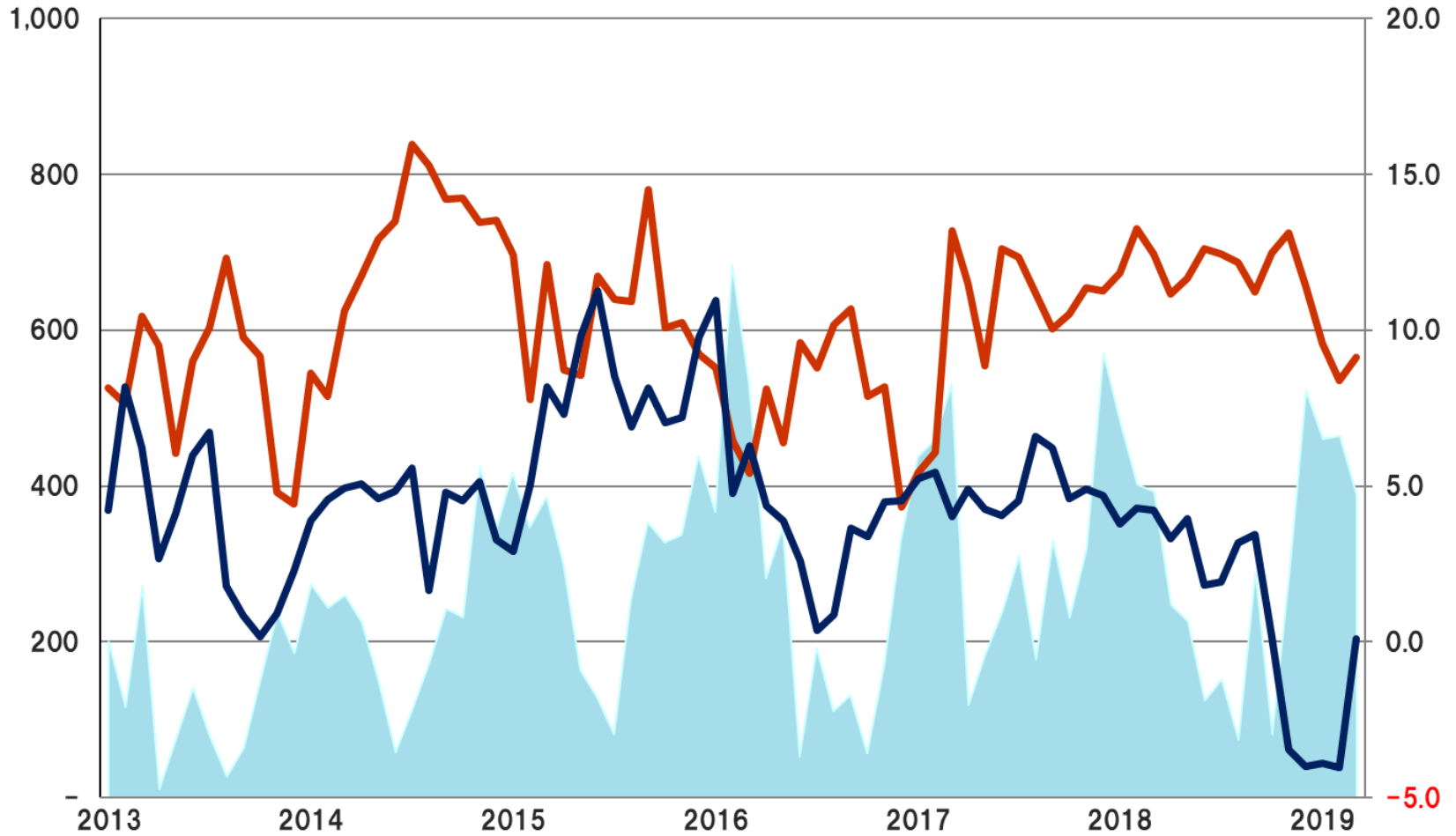
\*3) January-December results for each fiscal year

# Historical Changes in Dubai Crude Oil Price



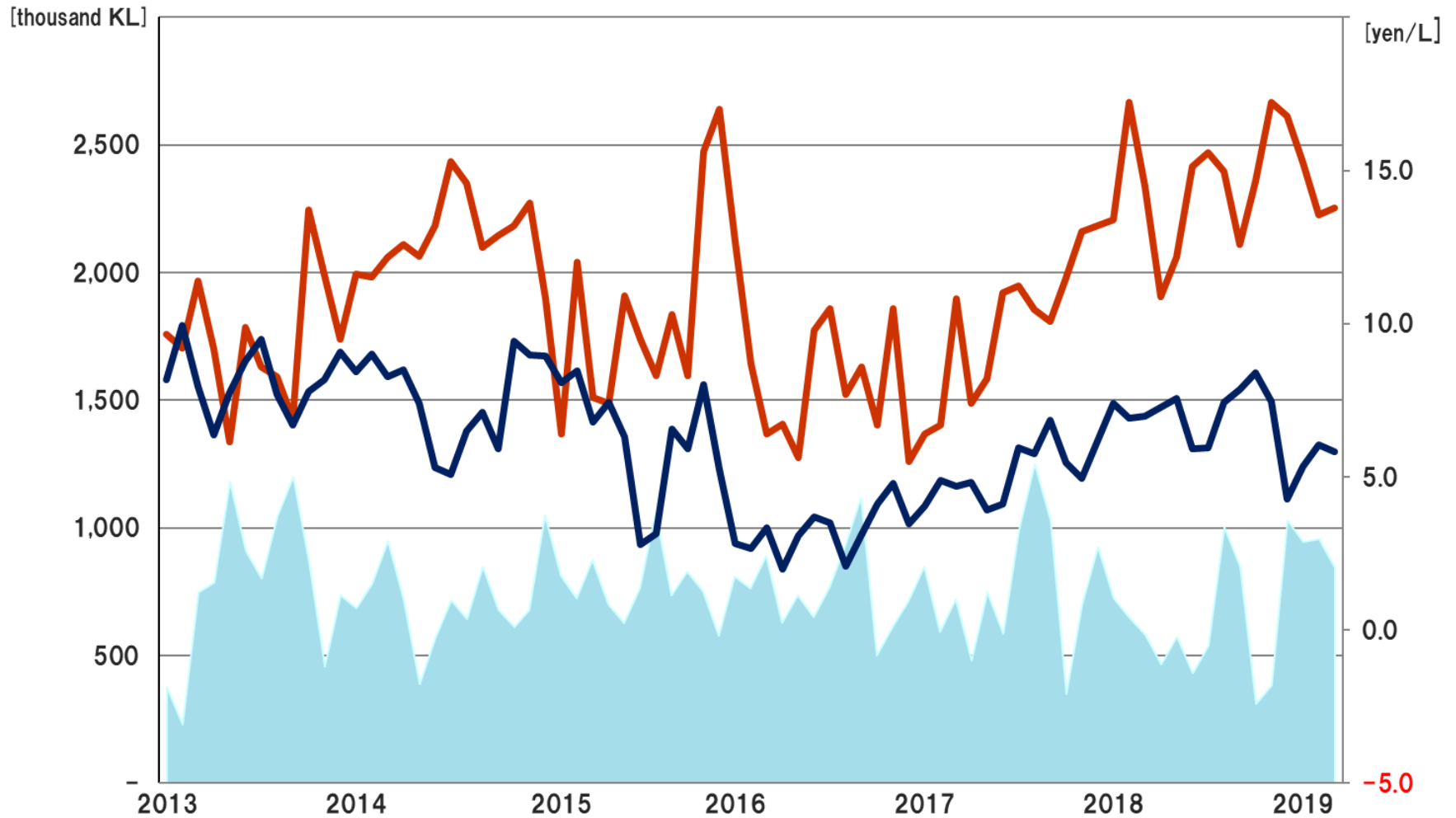
[thousand KL]

[yen/L]

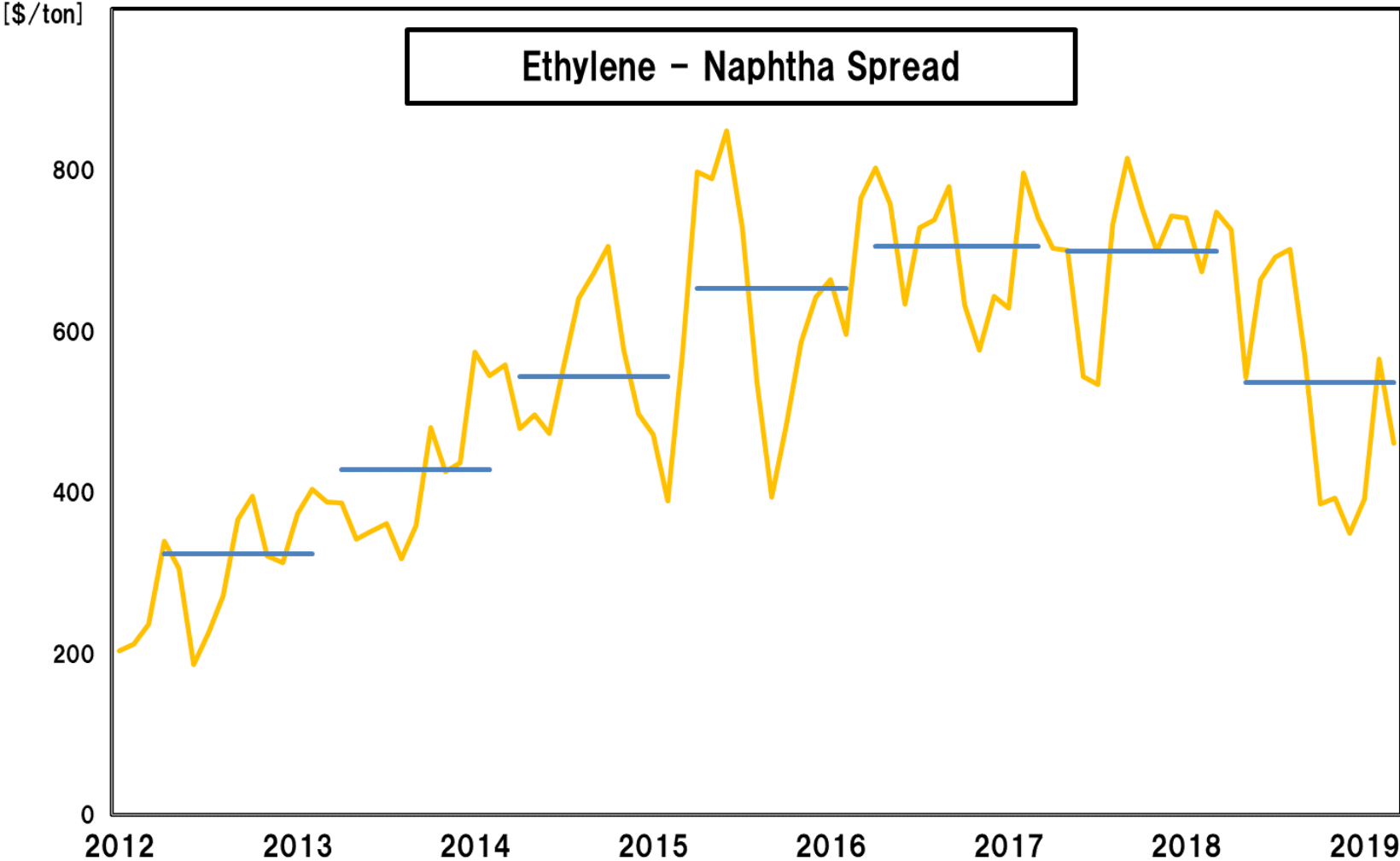


- Total Gasoline export volume from Japan (left axis)
- Gasoline - Japanese spot market spread between Dubai Crude and Product price (right axis)
- Gasoline - Singapore market spread between Dubai Crude and Product price (right axis)

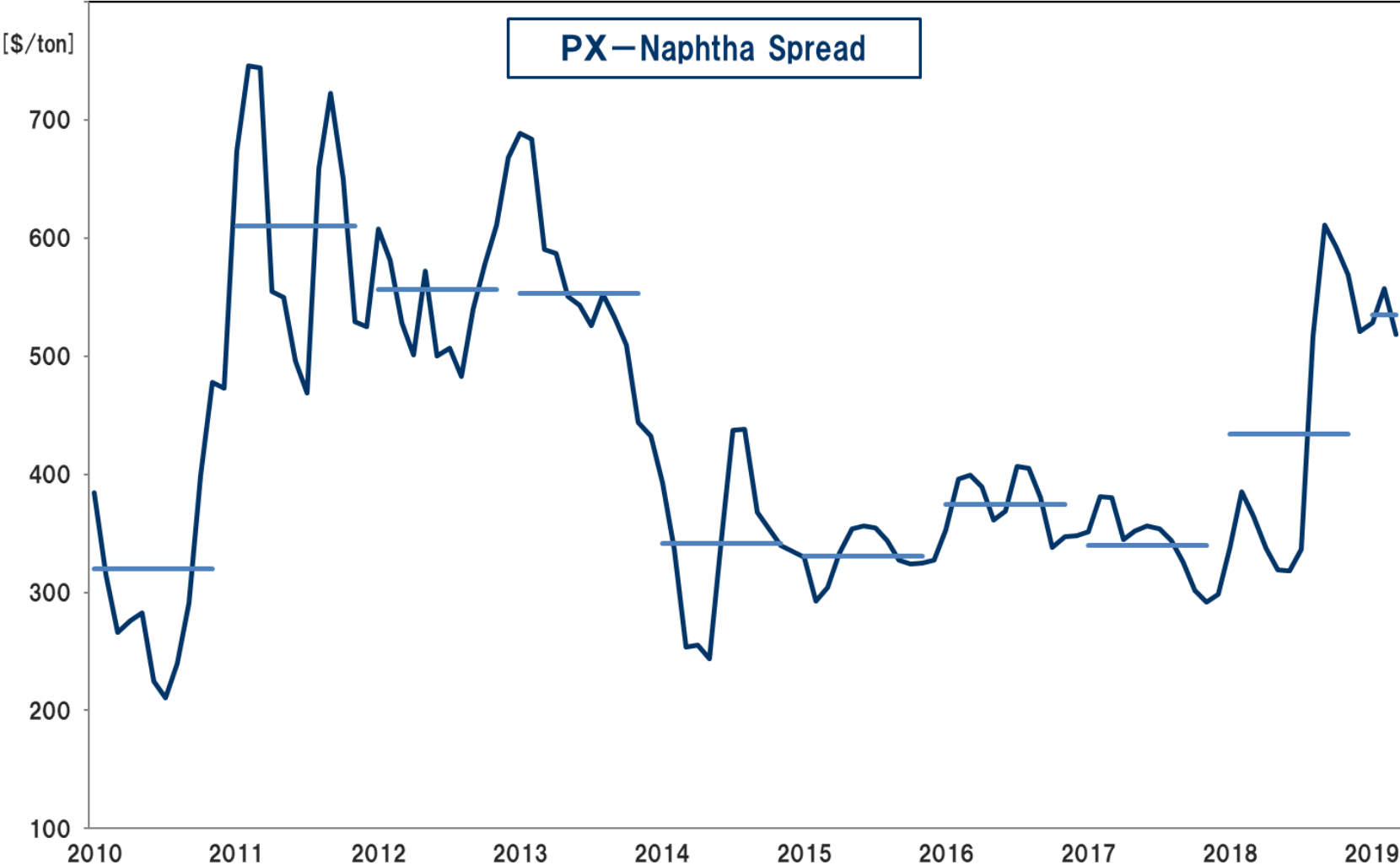




■ Total diesel fuel export volume from Japan (left axis)  
— Diesel fuel - Japanese spot market spread between Dubai Crude and Product price (right axis)  
— Diesel fuel - Singapore market spread between Dubai Crude and Product price (right axis)



(\*) 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 FY2019 Performance**

# [FY2019 Forecast] Outlook by Business Segment, Changes from FY2018 28

## FY2019 Forecast – Changes from FY2018

Unit: billion yen


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

## Cosmo Energy Group (by Segment)

|                        |  |
|------------------------|--|
| Petroleum business     | Cosmo Oil Co.,Ltd., Cosmo Oil Marketing Co., Ltd., Cosmo Oil Sales Corp, Cosmo Oil Lubricants Co., Ltd.,Sogo Energy Co., Ltd., Gyxis Corporation (owned by the Cosmo Energy Group on the equity method) , Kygnus Sekiyu K.K. (owned by the Cosmo Energy Group on the equity method) etc. |
| Petrochemical business | Cosmo Matsuyama Oil Co., Ltd., CM Aromatics Co., Ltd., Maruzen Petrochemical Co., Ltd., Hyundai Cosmo Petrochemical Co., Ltd. (owned by the Cosmo Energy Group on the equity method) , etc.  |
| Oil E & P business     | Cosmo Energy Exploration & Production Co., Ltd.,Abu Dhabi Oil Co., Ltd., Qatar Petroleum Development Co., Ltd., United Petroleum Development Co., Ltd. (owned by the Cosmo Energy Group on the equity method) , etc.   |
| Other                  | Cosmo Engineering Co.,Ltd., Cosmo Trade & Services Co., Ltd., EcoPower Co.,Ltd, etc.   |

# **Business Outline**

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

|                     |   |  |  |   |   |
|---------------------|---|--|--|---|---|
| <b>Major assets</b> | <b>Partnerships</b><br>Solid relationship of trust with oil producing countries for about 50 years                                      | <b>CDU capacity <sup>*5,*6</sup></b><br>400,000 BD<br>(Domestic market share: Approx. 11.4%) | <b>Olefinic production capacity <sup>*5</sup></b><br>Ethylene 1.29 mil tons/year<br>(Domestic market share: Approx. 19%)                             | <b>Wind power generation <sup>*5</sup> capacity</b><br>227,000 kW<br>(No. 3 in Japan and a 6% domestic share) | <b>Corporate brand awareness</b><br> 98.4%<br><br>※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) |
|                     | <b>Operatorship (self-operation)</b><br>We produces the largest volume of crude oil in the Middle East region for a Japanese operator.  | <b>Domestic Sales Volume <sup>*1</sup></b><br>20,566thousand KL                              | <b>Aromatic production capacity <sup>*5</sup></b><br>Para-xylene 1.18 mil tons/year<br>Benzene 0.94 mil tons/year<br>Mixed-xylene 0.62 mil tons/year | <b>Solar power generation <sup>*5</sup> capacity</b><br>24,000 kw   |   |
|                     | <b>Crude Oil Production <sup>*3</sup></b><br>Approx. 52 thousand B/D<br>(Comparison with refining capacity: Approx. 13%)                | <b>Number of Service station <sup>*5</sup></b><br>2,791                                      |  |   |   |
|                     | <b>Crude Oil Reserves</b><br>(Proved and Probable) <sup>*4</sup><br>167.0 million barrels<br>(Equivalent to approx. 18 years of supply) | <b>Number of the "Cosmo the Card" Holders <sup>*5</sup></b><br>4.33million cards             |  |   |   |
|                     |   | <b>Car leasing business for <sup>*5</sup> individuals</b><br>Cumulative total 60,579cars     |  |   |   |

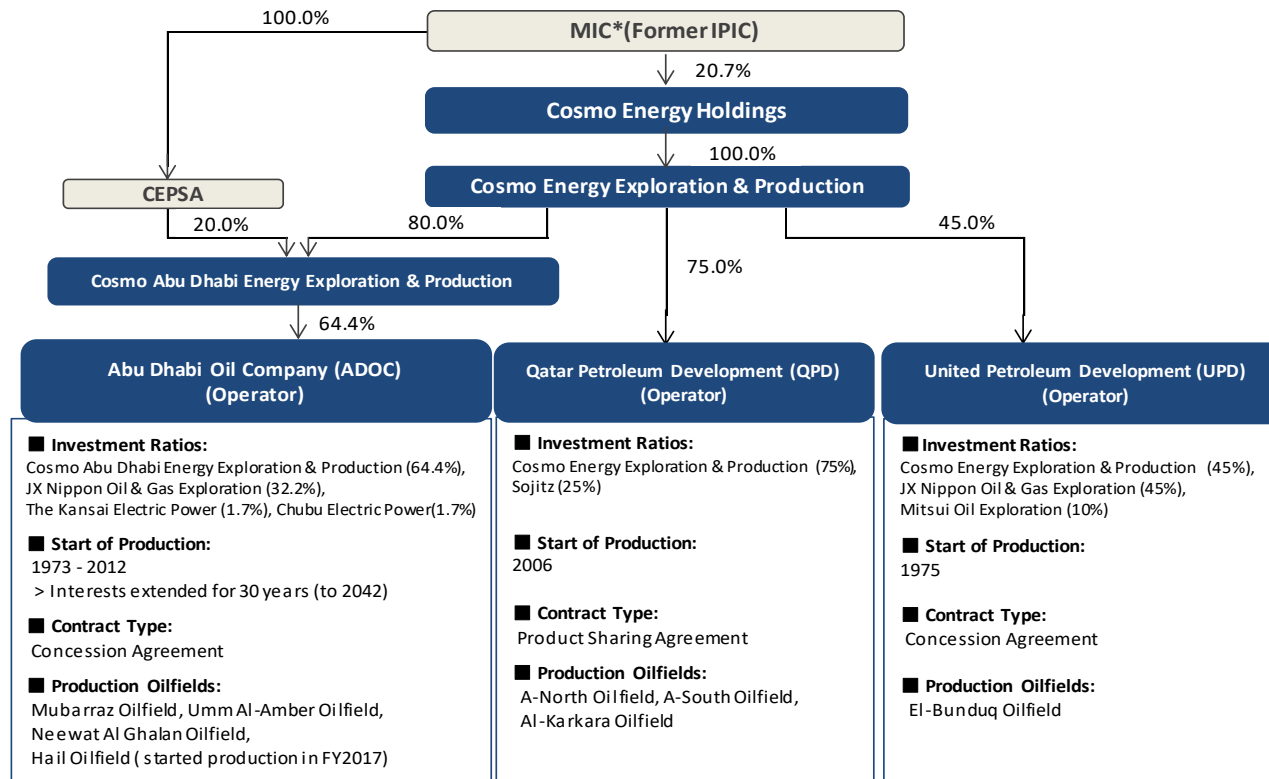
|   |   |  |   |   |   |
|---|---|--|---|---|---|
| <b>Major business companies related companies</b> | <ul style="list-style-type: none"> <li>• Cosmo Energy Exploration &amp; Production</li> <li>• Abu Dhabi Oil (UAE)</li> <li>• Qatar Petroleum Development (Qatar)</li> <li>• United Petroleum Development (UAE/Qatar)</li> </ul> | <ul style="list-style-type: none"> <li>• Cosmo Oil</li> <li>• Cosmo Oil Lubricants</li> <li>• Gyxis(LPG)</li> <li>• Cosmo Oil Marketing</li> <li>• Cosmo Oil Sales</li> <li>• Sogo Energy</li> </ul> | <ul style="list-style-type: none"> <li>• Maruzen Petrochemical (Chiba/Yokkaichi)</li> <li>• Cosmo Matsuyama Oil</li> <li>• CM Aromatics (Chiba)</li> <li>• Hyundai Cosmo Petrochemical (Korea)</li> </ul> | <ul style="list-style-type: none"> <li>• Eco Power (Wind power generation)</li> <li>• Cosmo Engineering</li> <li>• Cosmo Trade and Service</li> </ul> | — |
|---|---|--|---|---|---|

(\*1)FY2019 Forecast, (\*2) Including consolidated adjustment, (\*3)FY2018 Results, (\*4)As of Dec. 31, 2018, (\*5)As of Mar. 31, 2019

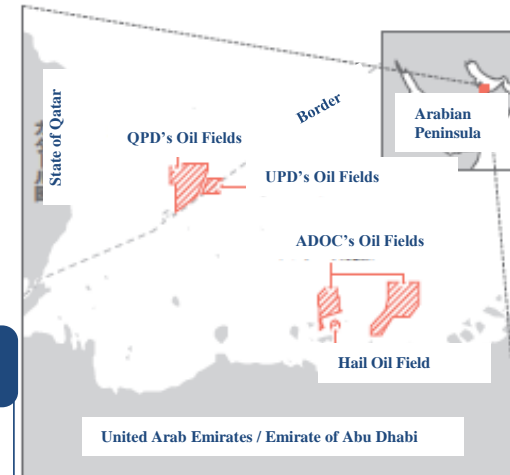
(\*6)Including the supply of the petroleum product/semi product (37,000 bbls/day equivalent) from Idemitsu Showa Shell Group with the business alliance.

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

## ■ Cosmo Energy Group Oil E&P Division



## ■ Cosmo Energy Group's oil fields



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



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

## ■ Risk Tolerance ■

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

## ■ Growth Strategy ■

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

## ■ Long-term Stable Production ■

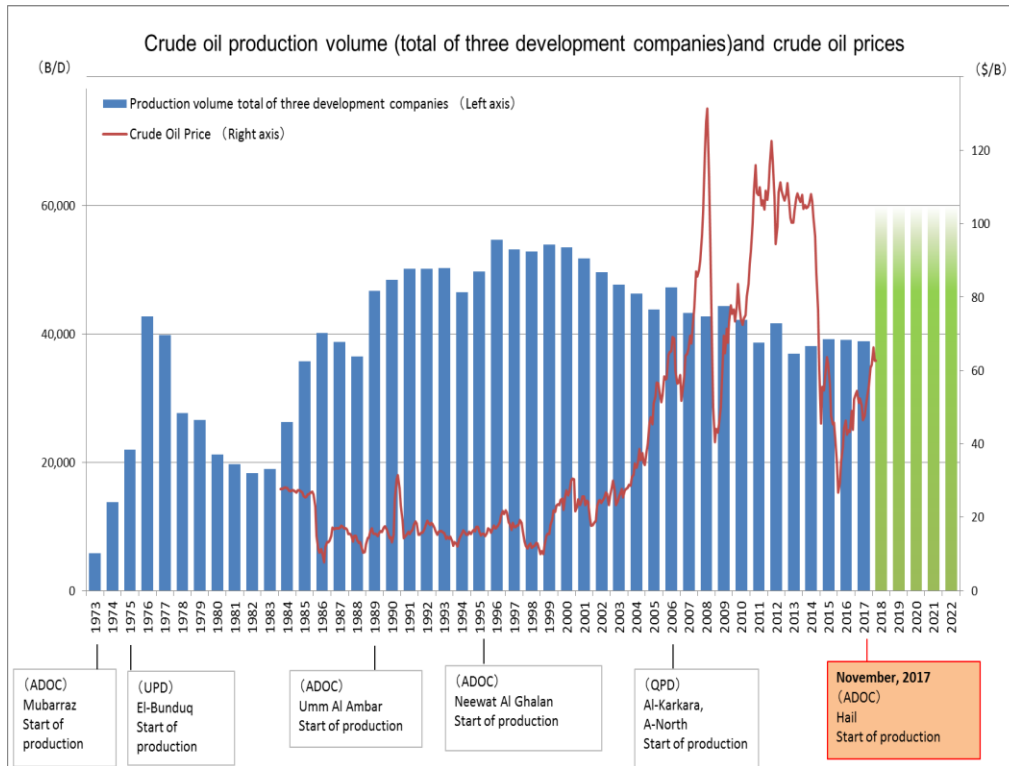
- Obtained interests before founding of UAE, with safe operation and stable production for almost five decades
- Long-term, stable purchase of crude oil from UAE (Abu Dhabi) and Qatar
- Contributions to both countries in terms of culture(Japanese language education, etc.) and the environment (zero flaring,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

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

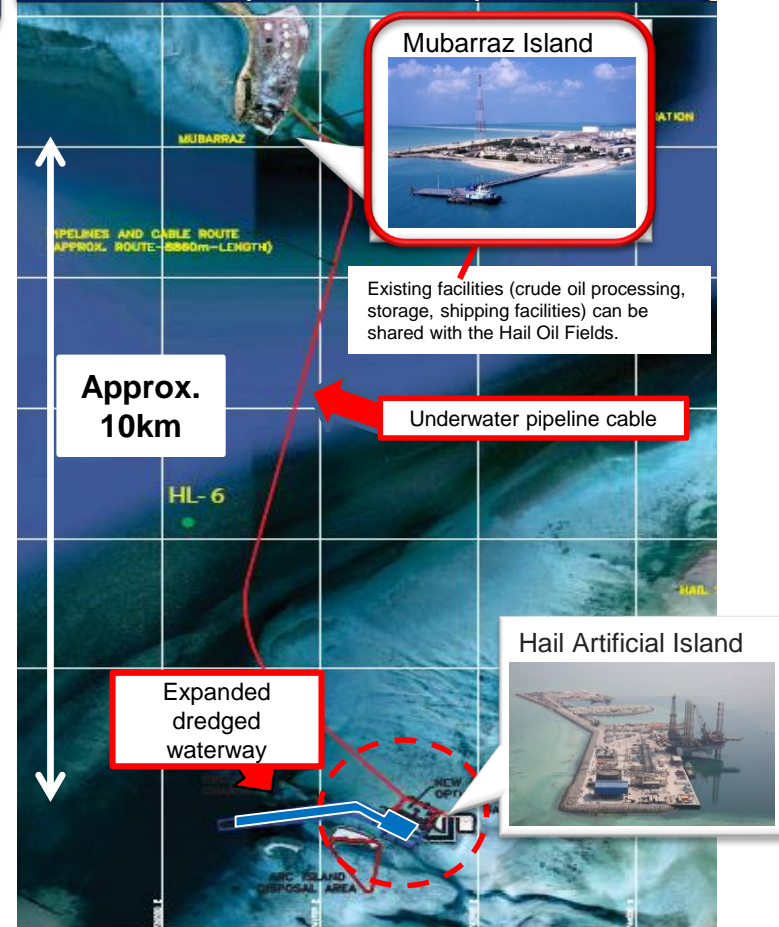
- The Arabian Gulf has many reserves and a lot of exploratory data has been accumulated (which translates into low oil exploration costs)
- Shallow water depth (relatively lower exploration, development and operating costs)

- ✓ 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 currently Idemitsu 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

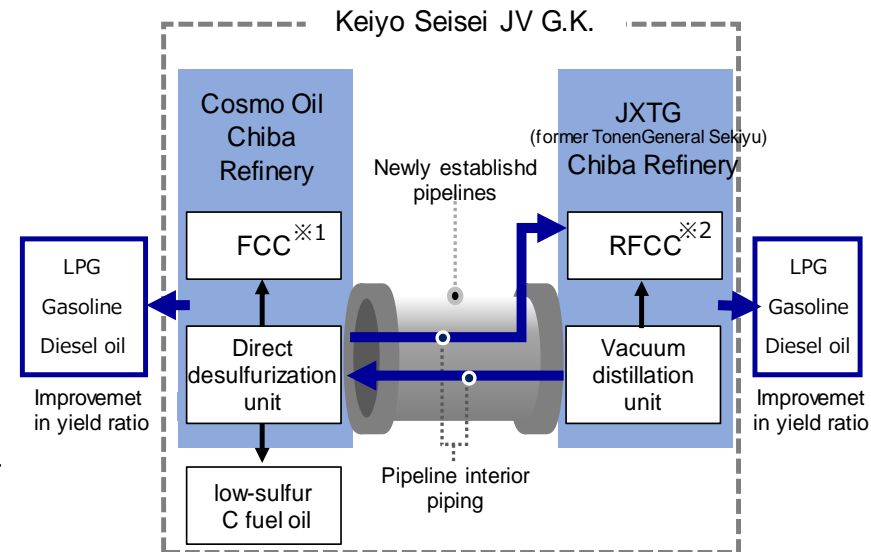
## ■ Overview of Keiyo Seisei JV G.K. (joint venture)

- 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

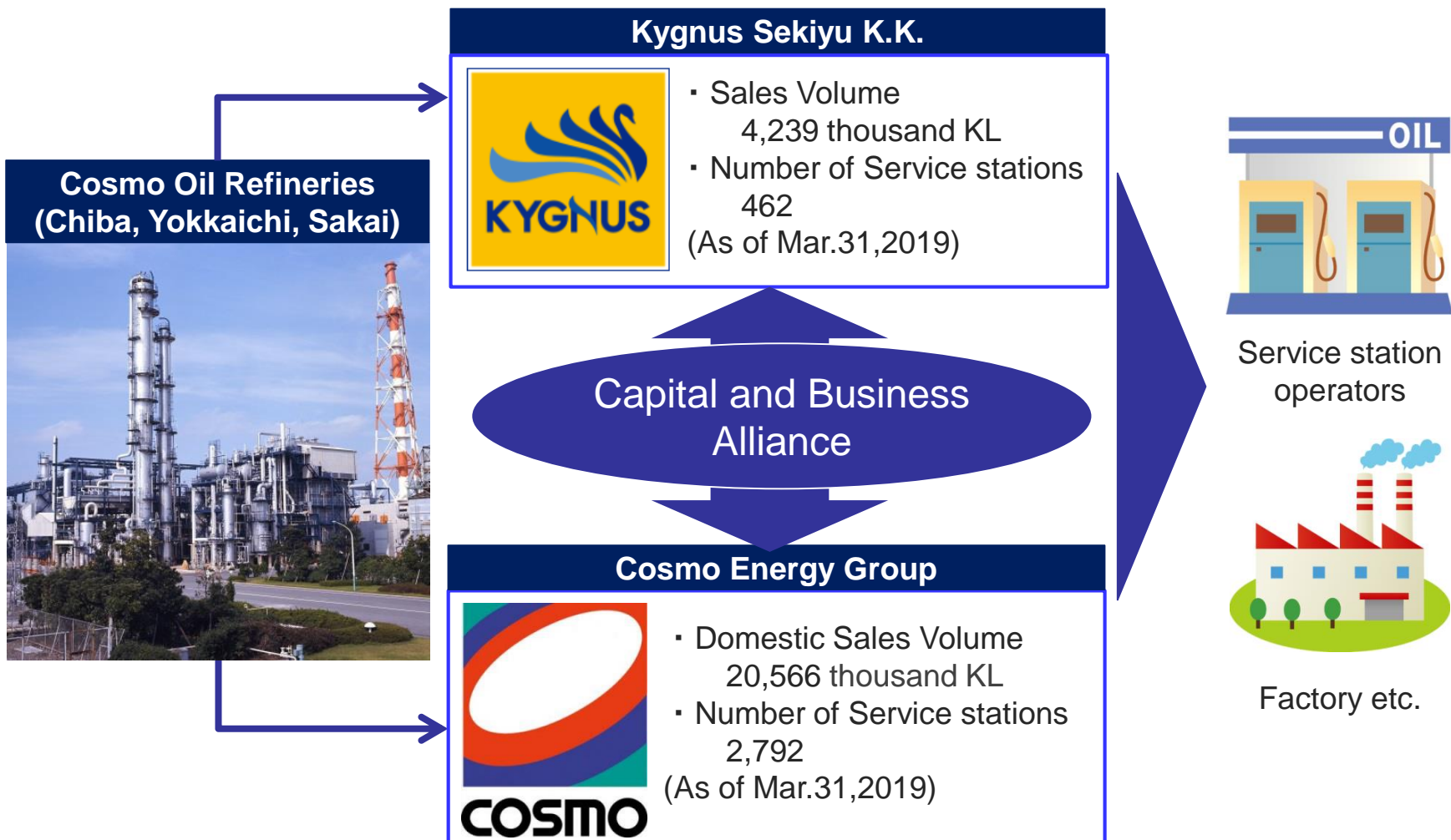
## ■ An example of Synergy



※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. around CY2020.
- ✓ 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)

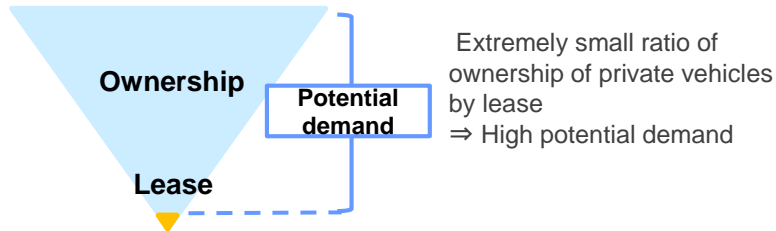
## Low-risk Business Model that Takes Advantage of Strengths of SS

37

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

### Characteristics

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



#### ■ Using the strengths of SS

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

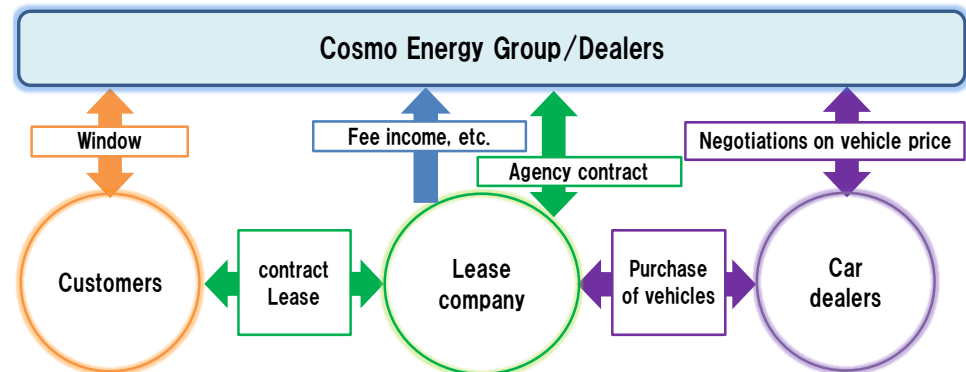
#### ■ Low risk

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

### Win-win business model

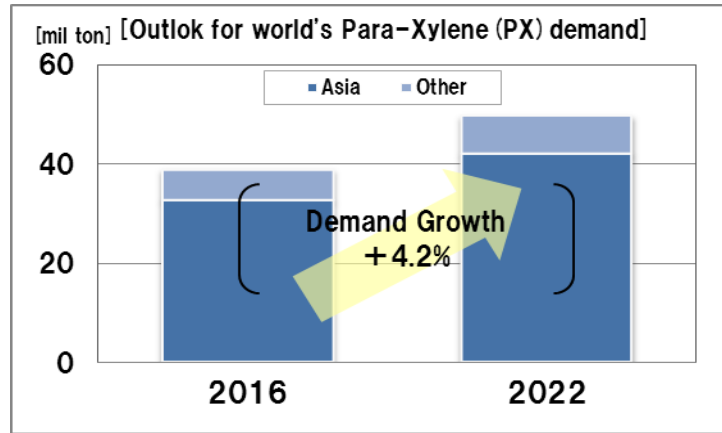
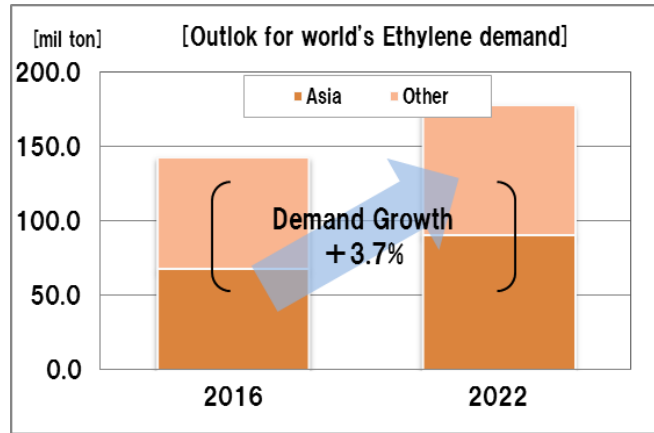
Customers : - Being able to drive new cars of any maker and model for a price lower than purchasing  
- No complicated procedures  
e.g. Simplified expenses for using a car (monthly flat rate that includes safety inspections, taxes, insurance, etc.)

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



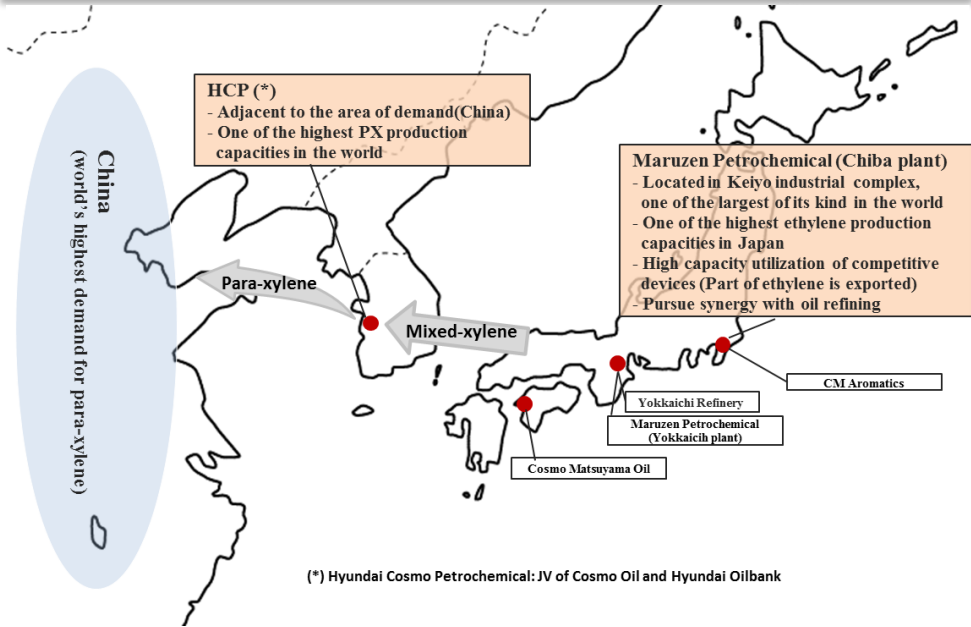


Expected global demand for petrochemical products



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

Strengths of Cosmo Energy Group

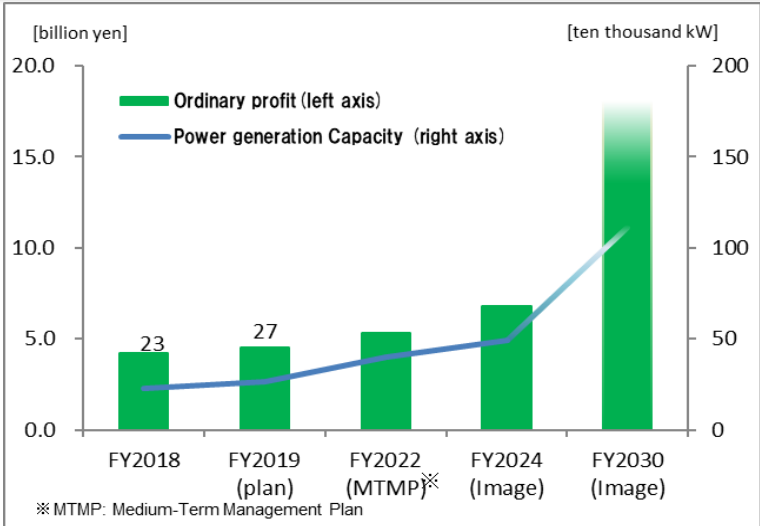


Production capacity

| 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               |                     |
| Cosmo Matsuyama Oil |              | 0.048 mil t/year               |                     |
| Total               |              | 0.618 mil t/year               |                     |
| Aroma-based, total  |              | 2.738 mil t/year               |                     |

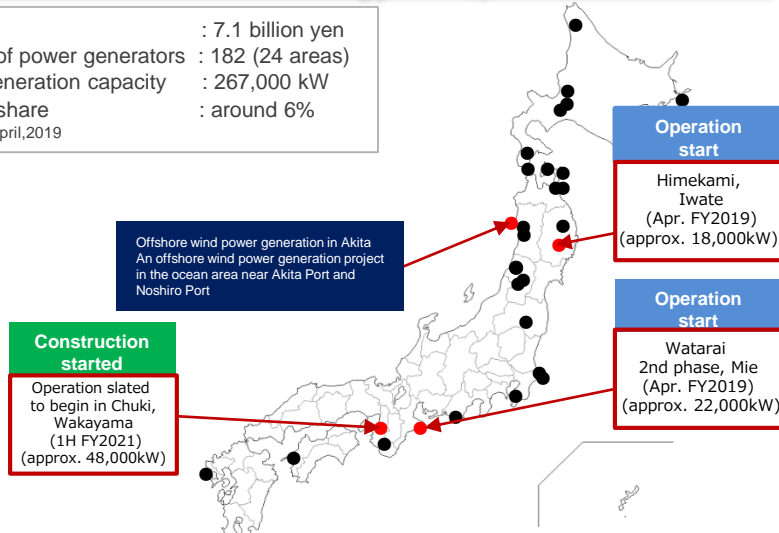
\* Includes production capacity of Keiyo Ethylene (55% owned, consolidated subsidiary of Maruzen Petrochemical)

## 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 : 182 (24 areas)  
 Power generation capacity : 267,000 kW  
 Industry share : around 6%  
\*As of 30 April, 2019



## Characteristics (strengths) of the Group

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

## Business environment in Japan

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

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

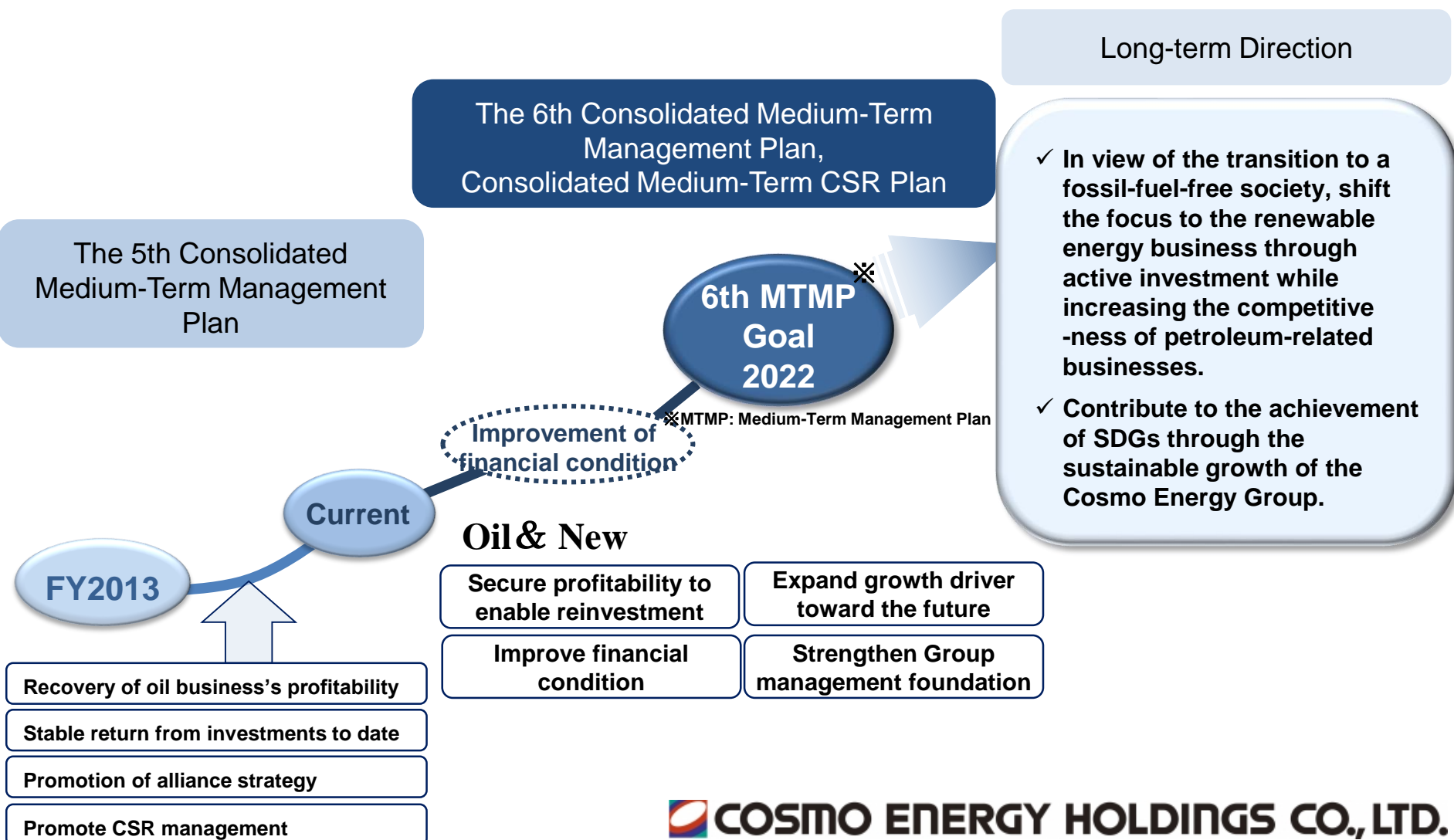


# **The 6th Consolidated Medium-Term Management Plan (Announced on March 20,2018)**

# 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)

**4<sup>th</sup> 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

6% METI forecast('16)base

10% 26% 50%~

50% (20% out of total car) 80%~ (35%~)

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

(forecast by think tank)

2017 2030 2040

Other 167 -23% 130 100

MG53 -25% 40 30

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

(Association of sharing economy)

2016 2030

15% Renewable 22~24%

83% Nuclear 20~22%

Thermal 56%

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

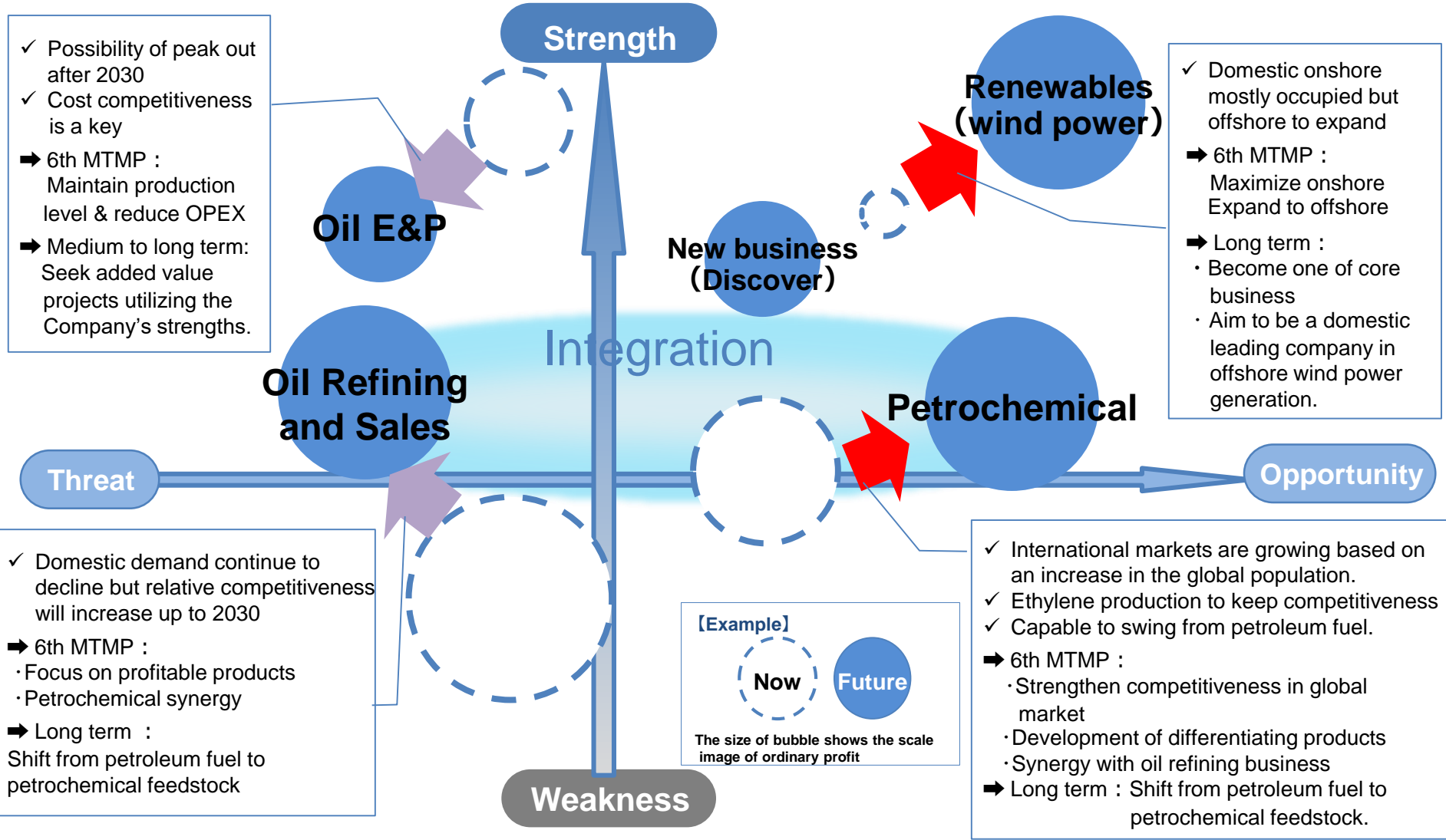
2017 2030

80~ Offshore

~920 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 | <b>Ordinary profit</b><br>(excluding impact of inventory valuation) | <b>Over 120.0</b>               |
| 2 | <b>Profit attributable to owners of parent</b>                      | <b>Over 50.0</b>                |
| 3 | <b>Free cash flow</b><br>(FY 2018 - FY 2022 Five years total)       | <b>Over 150.0</b>               |
| 4 | <b>Net worth</b><br>( Net worth ratio )                             | <b>Over 400.0</b><br>(Over 20%) |
| 5 | <b>Net Debt Equity Ratio*</b>                                       | <b>1.0~1.5 times</b>            |
| 6 | <b>ROE</b>  | <b>Over 10%</b>                 |

**【 Precondition 】**

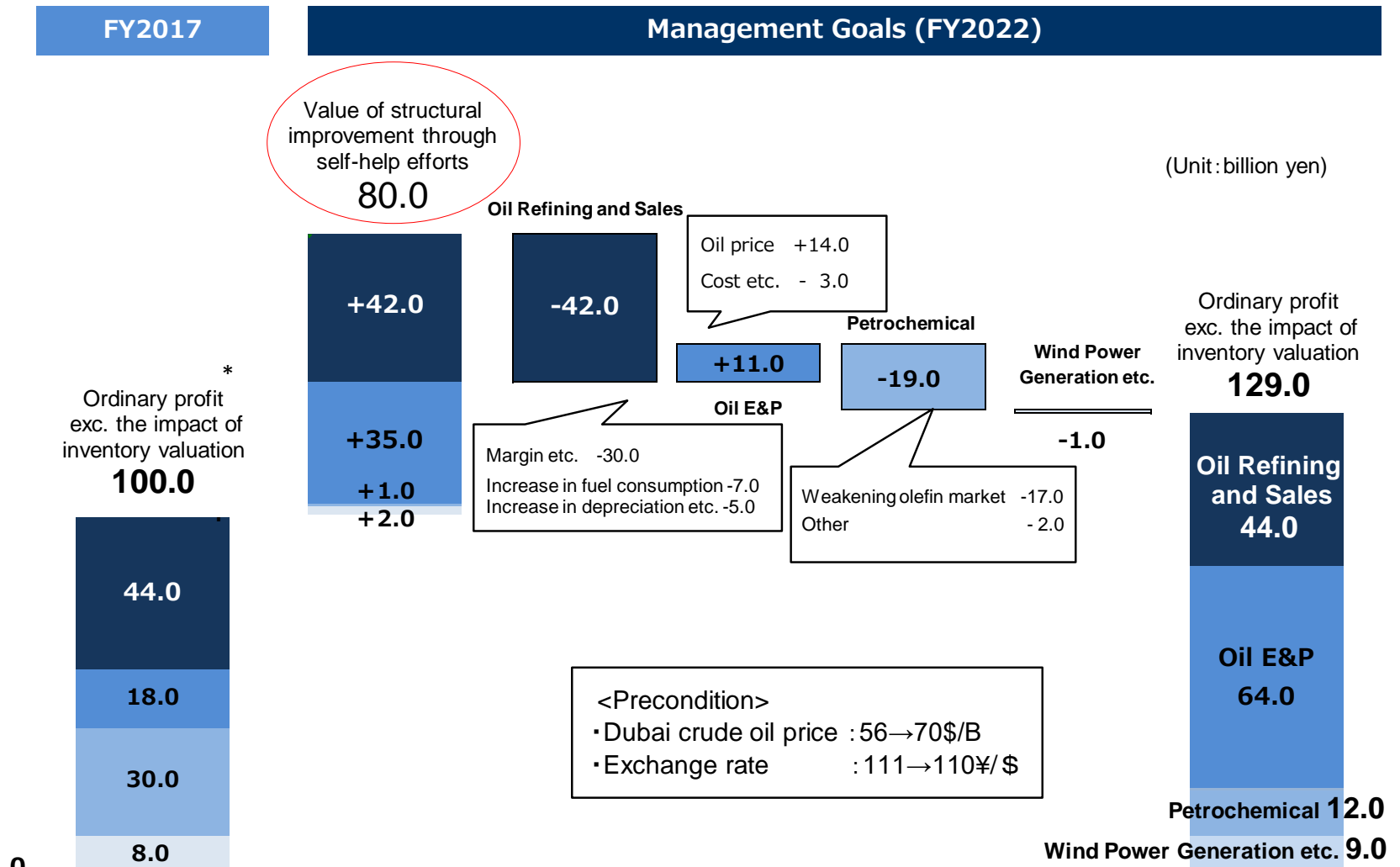
**Dubai crude oil price (USD/B) : 70**

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

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



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



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

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

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

※ Cash Flow: Ordinary profit + Increase in depreciation

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

(Unit: billion yen)

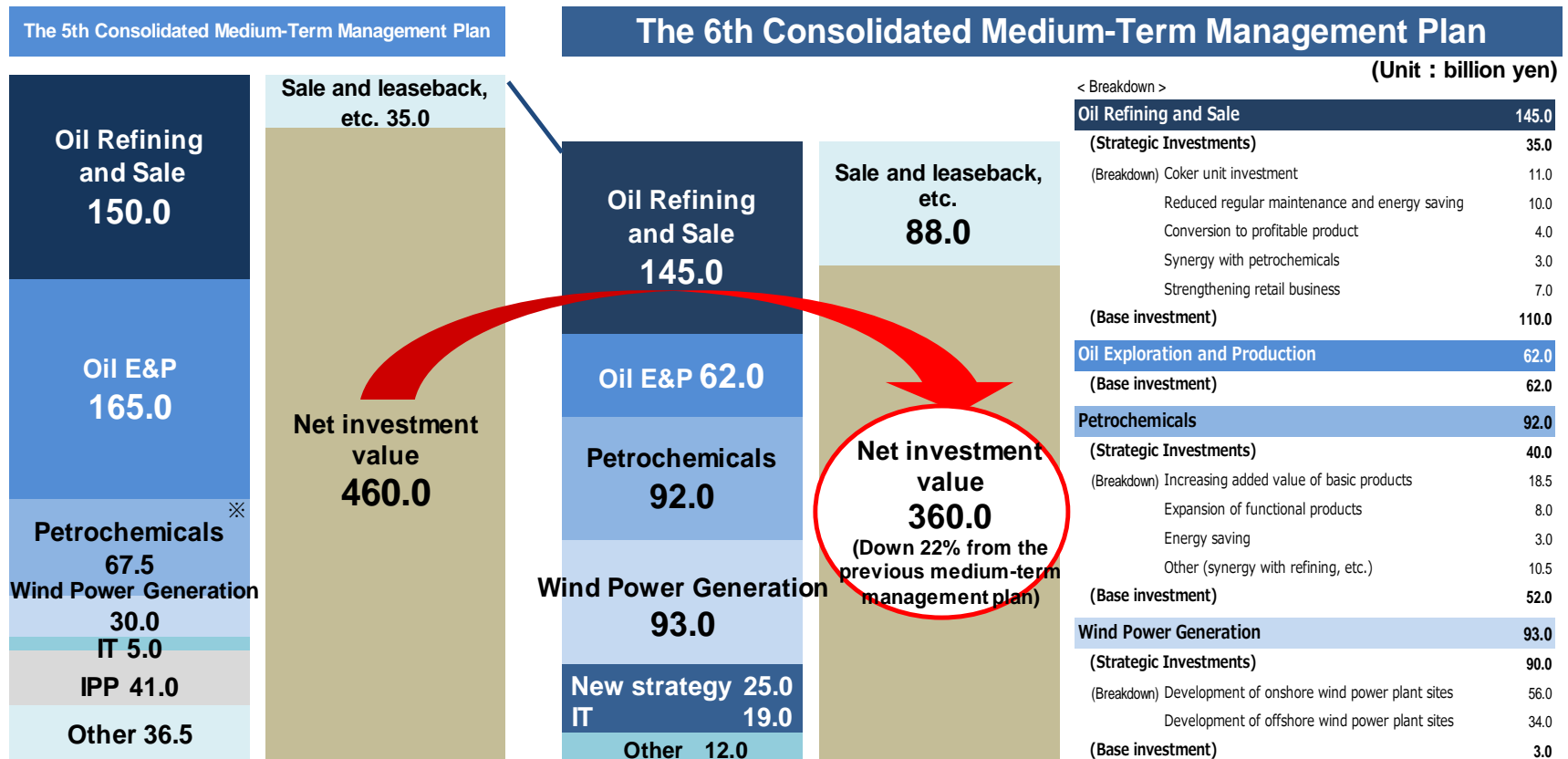
| Incoming Cash  | Outgoing Cash   |
|--|---|
| <b>535.0</b>   | <b>360.0</b>  |
| Net profit<br><b>225.0</b><br>→Increase<br>shareholders<br>'equity | Investment ※<br><b>360.0</b>  |
| Depreciation etc.<br><b>310.0</b>                                  | Free Cash Flow<br><b>175.0</b><br>→Decrease in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

|          |  |          |   |
|----------|--|----------|---|
| <b>E</b> | <b>Promoting environmental measures</b><br> | <b>S</b> | <b>Enhancing human rights &amp; social contribution measures</b><br> |
|----------|--|----------|---|

- ✓ **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

|          |   |   |  |
|----------|---|---|--|
| <b>G</b> | <b>Ensuring safety measures</b><br> | <b>Strengthening corporate governance structure</b> |  |
|----------|---|---|--|

- ✓ **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

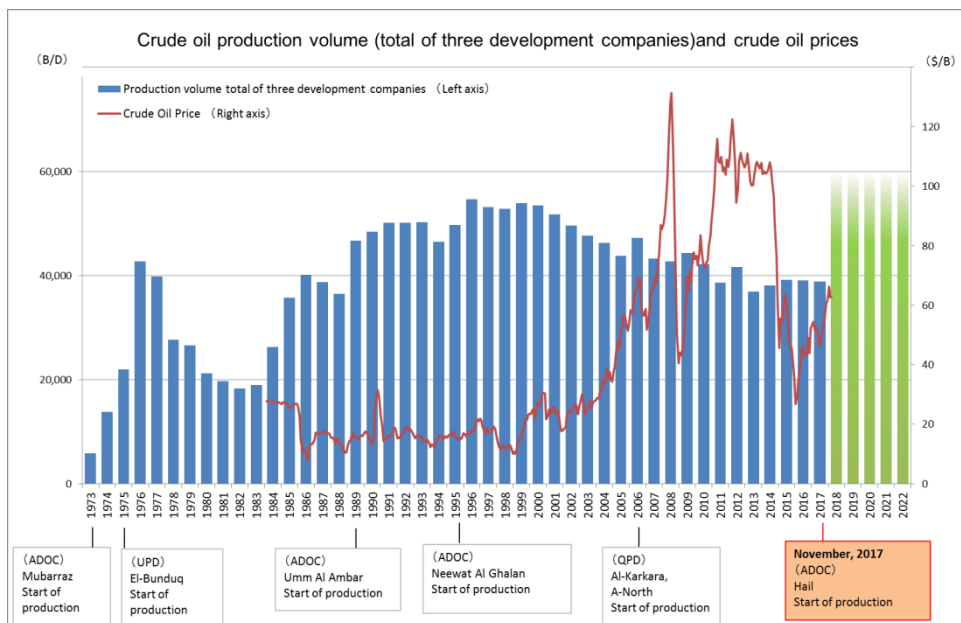
## Long-term business strategy based on strengths

- ✓ 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.<br>Use of Chiba Refinery pipeline<br>➔Focus on profitable products | 24.0                 |
| 2. Increase capacity utilization                    | Reduce unplanned suspensions<br>Reduce regular maintenance periods at refineries  | 6.0                  |
| 3. Achieve synergy with the petrochemical business. | Use of unused distillates<br>➔Increase business opportunities   | 3.0                  |
| 4. Cost reduction                                   | Energy-efficient operation of facilities<br>Strategic purchasing, rationalized distribution                                     | 6.0                  |

Value of improvement in FY2022  
(from FY2017)

**39.0 billion yen**



## Long-term business strategy

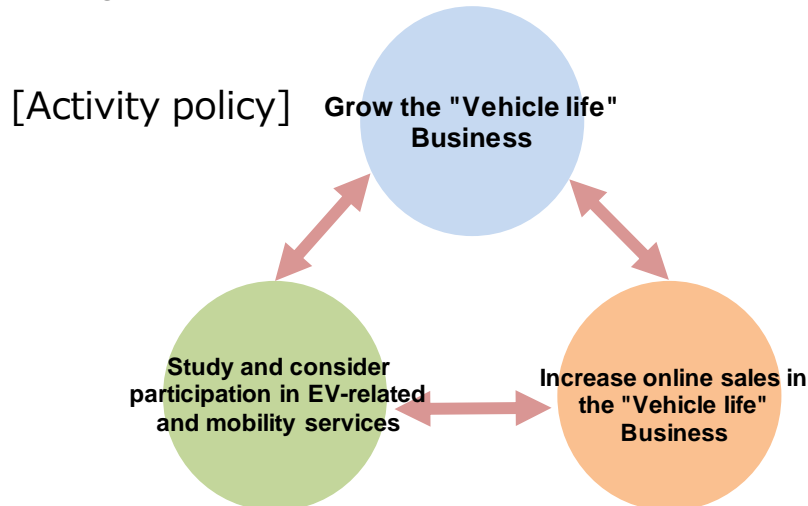
- ✓ Acquire business areas based on a business model reform corresponding to a shift to EVs and changes in consumers’ use of automobiles.
- ✓ Acquire total competitiveness together with oil refining business

## 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

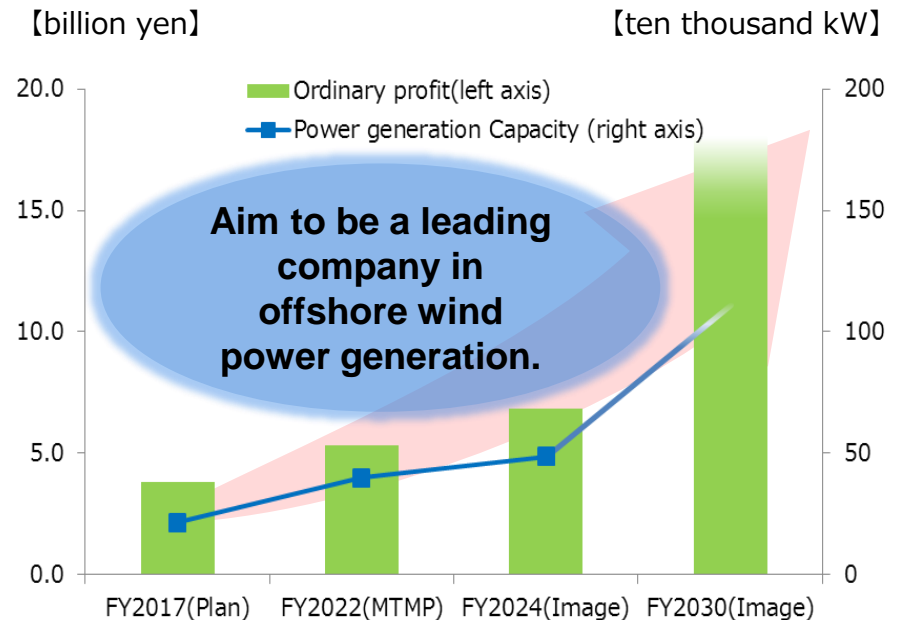
## Long-term environmental awareness

- ✓ 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)

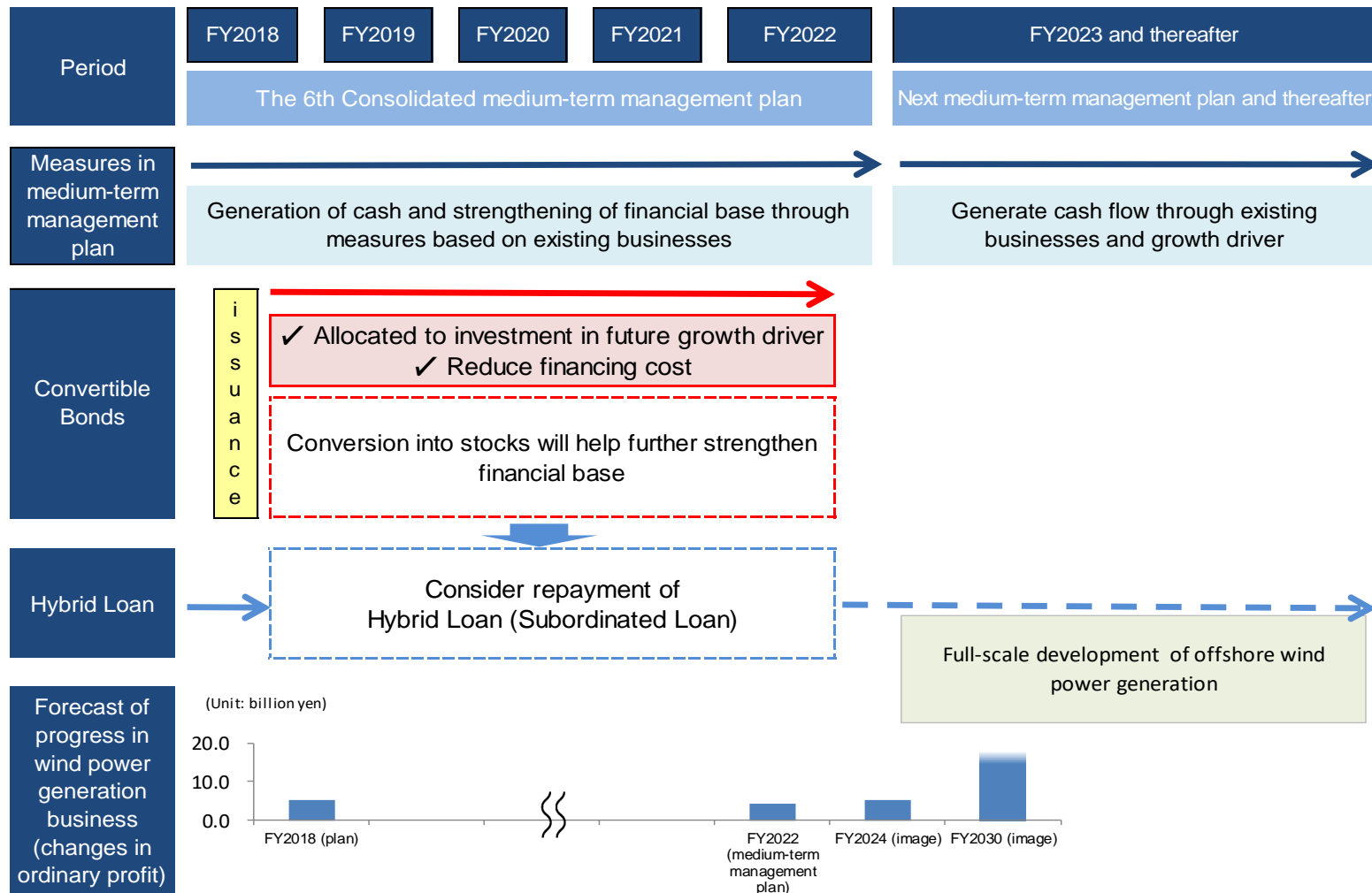
**2.0 billion yen**

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

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

# Through financing by issuing convertible bonds, planning to further strengthen the company's financial base for the Next Medium-Term Management Plan and thereafter 62

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



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

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

(Unit: billion yen)

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

✓ No change from medium-term management plan

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

(Breakdown of cash flow from financing activities)

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

Partial change

Dividends -XX.X



## Disclaimer

### FORWARD-LOOKING STATEMENTS

Certain statements made and information contained herein constitute "forward-looking information" (within the meaning of applicable Japanese securities legislation). Such statements and information (together, "forward looking statements") relate to future events or the Company's future performance, business prospects or opportunities. Forward-looking statements include, but are not limited to, statements with respect to estimates of reserves and or resources, future production levels, future capital expenditures and their allocation to exploration and development activities, future drilling and other exploration and development activities, ultimate recovery of reserves or resources and dates by which certain areas will be explored, developed or reach expected operating capacity, that are based on forecasts of future results, estimates of amounts not yet determinable and assumptions of management.

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