

## Act on Sophisticated Methods of Energy Supply Structures

An act to promote the use of non-fossil resources and more effective use of fossil sources by energy supply businesses.

It facilitates measures necessary to promote the use of renewable energy sources such as sunlight and wind, non-fossil resources including nuclear energy, and more effective use of fossil resources by energy supply businesses including electric, gas, and oil companies.

(Source: Agency for Natural Resources and Energy, Ministry of Economy, Trade and Industry)

## API

The American Petroleum Institute gravity, or API gravity is a measure of the density of a crude oil liquid. If its API gravity value is greater, it indicates that a larger quantity of lighter and more highly value-added distillate products (gasoline, kerosene, jet fuel and diesel fuel) is likely to be distilled from the liquid, which is priced higher in the market.

## Arakawa Chemical Industries, Ltd.

-Founded in 1876, the company manufactures and sells environmentally friendly, value added materials, including those necessary for manufacturing products related to printing and cutting-edge electronics, based on its core technologies in the chemistry of rosin or pine resin.

-In February 2018, the company, Cosmo Oil and Maruzen Petrochemical established a joint venture company (Chiba Arkon Production, Limited) engaged in manufacture and sales of hydrogenated petroleum resin.

### 《Overview》

(1) Founded	1876
(2) Incorporated	1931
(3) Capital	¥3,343.15 million
(4) Business	Manufacture and sale of paper chemicals, resin materials for printing inks and adhesives and intermediate materials for electronic components
(5)URL	<a href="http://www.arakawachem.co.jp/en/">http://www.arakawachem.co.jp/en/</a>

## Bio gasoline

Biofuels, made from plants as raw materials, are eco-friendly fuels since they don't increase CO<sub>2</sub> in the atmosphere, even if they release CO<sub>2</sub> through incineration since plants have already absorbed CO<sub>2</sub> through photosynthesis in the growing process, which is called the "carbon neutral effect".

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## Bottomless refinery system

Maximizing production of gasoline and kerosene etc. by breaking down such as high sulfur heavy fuel oil C and asphalt etc..

## Car Care Merchandise

It includes car inspection, repair, lubricating oil change, and car wash services, tires, batteries, accessories, and other automotive products and services, which represent the value added merchandise.

## CEPSA

Compañía Española de Petróleos, S.A.U. (hereinafter "CEPSA"),  
Spanish integrated oil company.

In January 2014, Cosmo Oil CO.,Ltd and CEPSA have agreed and signed a Memorandum of Agreement in relation to Strategic Comprehensive Cooperation.

In November 2014, CEPSA has joined Cosmo Oil's upstream subsidiary, "Cosmo Abu Dhabi Energy Exploration & Production Co., Ltd"

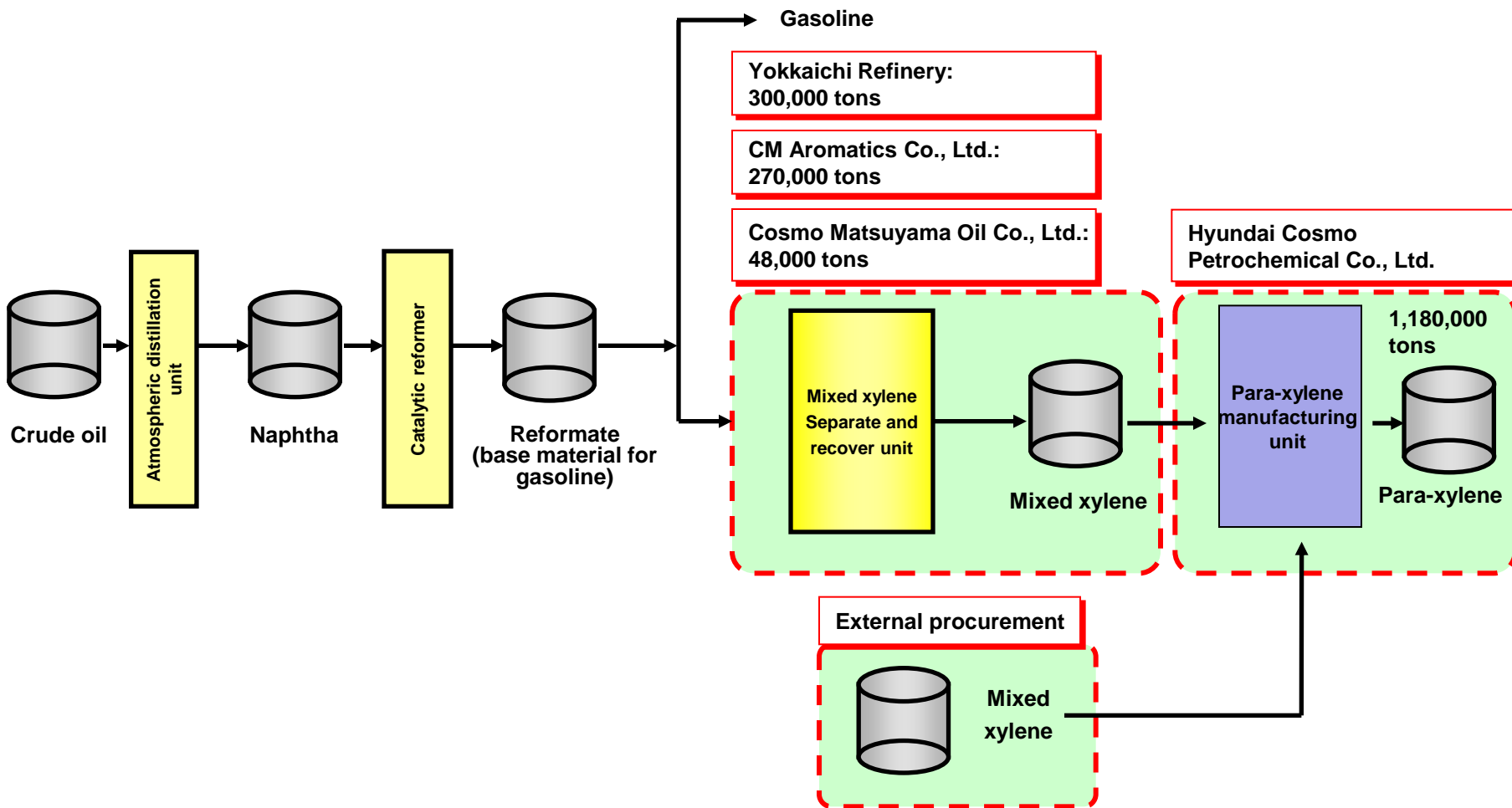
# CM Aromatics Co., Ltd.

A joint venture company established by Cosmo Oil and Maruzen Petrochemical Co., Ltd. to procure the base material to manufacture mixed xylene and to store and market it.

Date of establishment: April 1, 2005

Capital: ¥100 million

Invested by: Cosmo Oil at 65% and Maruzen Petrochemical Co., Ltd. at 35%



## Coker Unit

A new unit built at the Sakai Refinery of Cosmo Oil (with a capital investment of some ¥100 billion) scheduled to start operation during fiscal year 2010. In addition to the Coker unit, a Coker Distillate hydrodesulfurization unit is also newly being built. These units, when completed, are used to produce naphtha, jet fuel and diesel fuel from an asphalt fraction. These efforts are expected to provide benefits, such as cost reductions in the refining process by using heavy crude oil (by taking advantage of heavy-lighter crude oil price gaps, or price gaps between heavy crude oil and light crude oil aimed at maintaining the same distillate production rates as conventionally by using lower-priced heavy crude oil) and better responses to structural changes in oil product demand in Japan and higher refining margins with a shift to the production of intermediate fractions from that of a heavy oil fraction (by taking advantage of light-heavy distillate product price gaps, or price gaps between oil product and heavy fuel oil aimed at improving rates of producing more highly value-added lighter distillates), thereby improving profitability at the company.

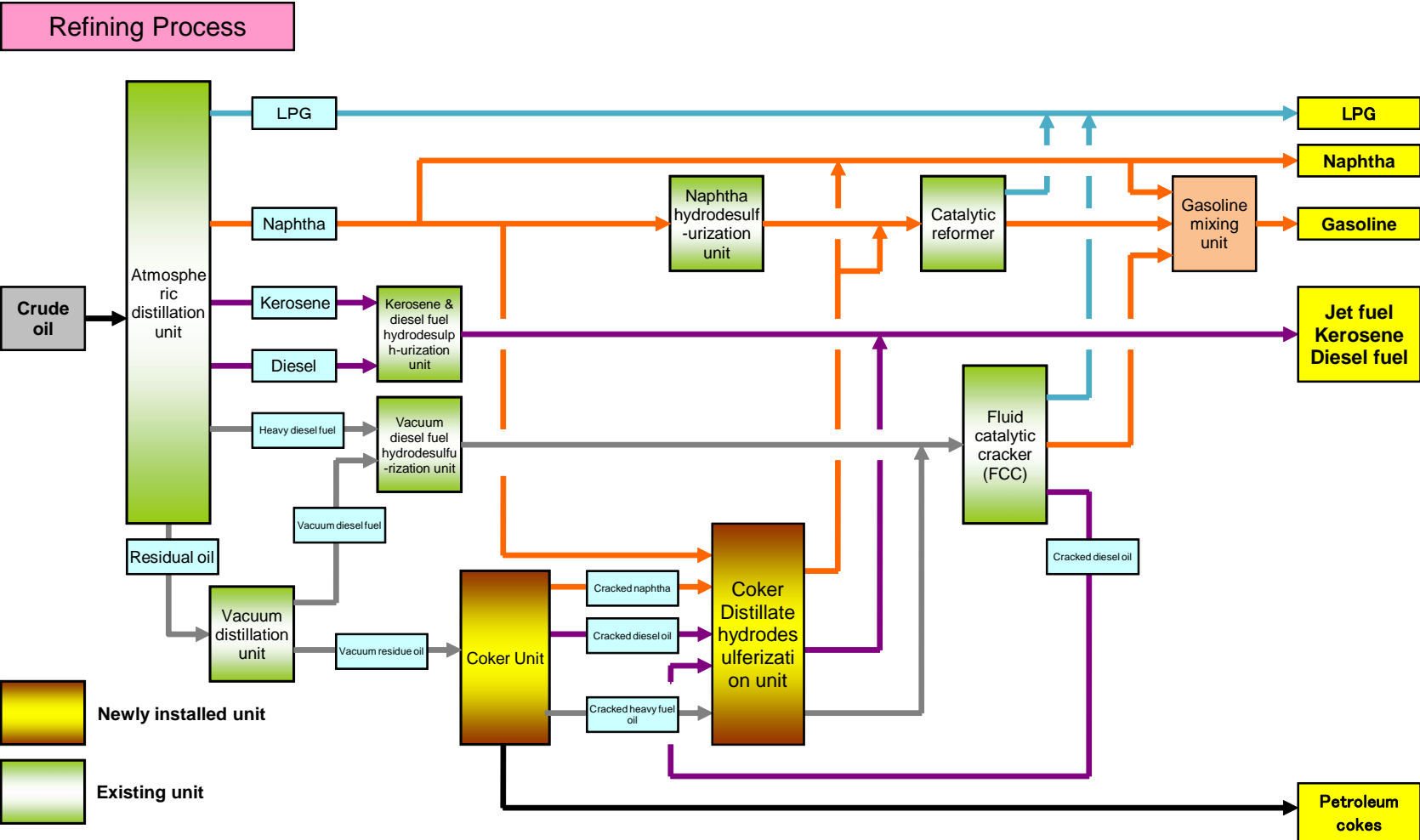
### <Outline of the New Facilities to Introduce>

- (1) Coker unit - Processing capacity of 29,000 BD
- (2) Coker Distillate hydrodesulfurization unit - Processing capacity of 42,000 BD

### <Outline of Production Capacity Expected>

Naphtha: 250,000 kl/year; Jet fuel: 700,000 kl/year; Diesel fuel: 350,000 kl/year;  
and Petroleum cokes: 400,000 tonnes/year

# <Refining Process Chart After Introduction of Coker and Other Units>



## **Company with Audit and Supervisory Committee**

-Under the revised Companies Act, a Company with Audit and Supervisory Committee is prescribed as “any Stock Company which has an Audit and Supervisory Committee consisting of three or more directors (the majority of the member directors shall be outside directors) and the committee audits the execution of duties by directors.” By having more than one outside director who does not execute business, it is possible to separate the execution and supervision of management.

## **Concession agreement**

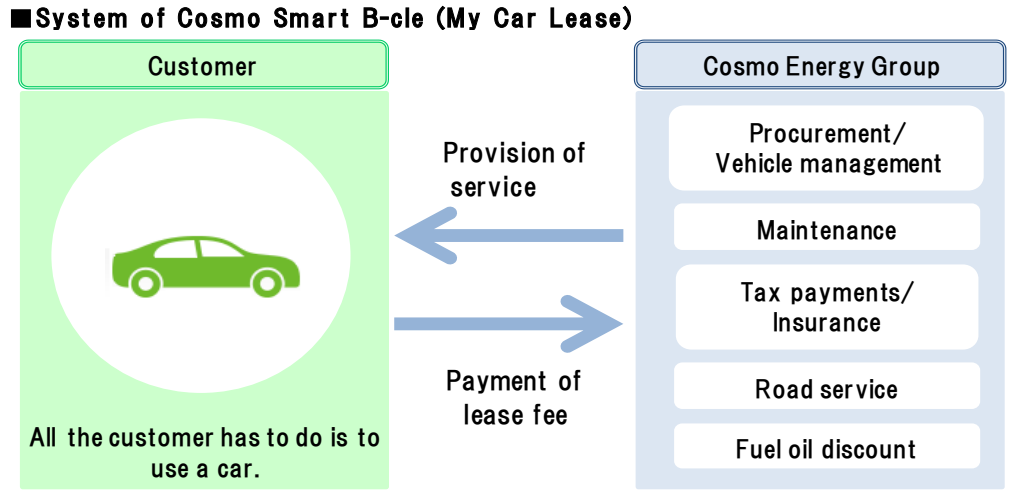
- Agreement by which the mining right is directly granted to an oil company from the government or a state-run oil company of an oil-producing country by contract or permission.
- The oil company has the power of disposition of oils and gases that can be obtained by making an investment on its own, and profits are returned to the oil-producing country in the form of royalties from sales and taxes, etc.

# COSMO B—CLE LEASE(Personal Car Lease)

An integrated, "one-stop" vehicle lease service encompassing procurement of vehicles, automobile safety inspection, car insurance, discounted fueling. With a monthly payment of fixed lease fee, customers can receive all of above services at our outfit without going anywhere else.

We have applied to the business method patent for our original services including discount on fuel fee and carry-in maintenance services.

Acquired business model patents for its own services such as fuel oil discount and maintenance carried-in discount in 2013.



All the customer has to do is to pay a certain lease fee every month, and the Cosmo Energy Group conducts troublesome maintenance and tax payments.

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# COSMO B - CLE SHOP

COSMO B - CLE SHOP is a new business model that further develops the "Smart Vehicle Shop" service launched in May 2014 to provide total support for the motoring lifestyles of consumers.

The Company has created dedicated store space for vehicle selection and introduced a new system enabling it to handle all models produced by Japanese automakers and to provide one-stop services ranging from vehicle leasing and purchases, to insurance, vehicle inspections, maintenance, and car sales.

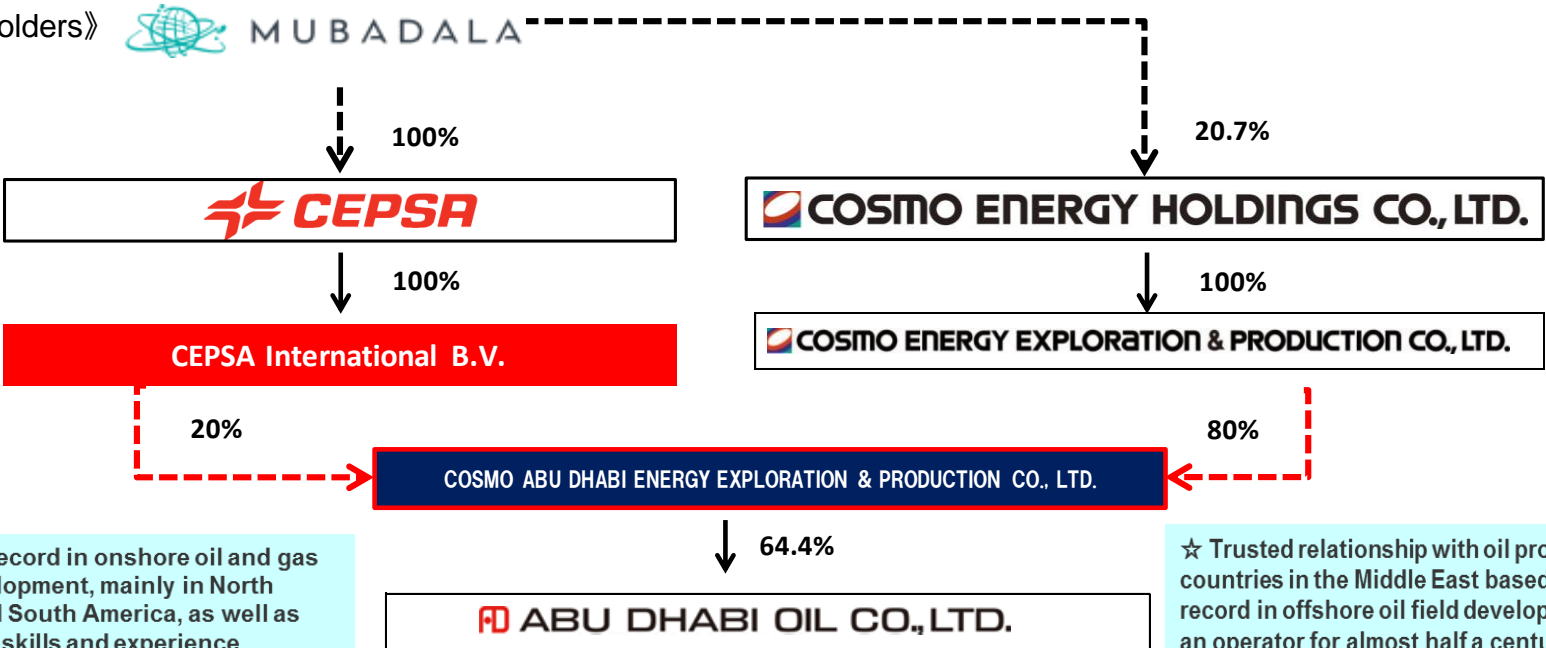
# Cosmo Abu Dhabi Energy Exploration & Production Co., Ltd.

- Established in November 2014 to control Abu Dhabi Oil Co., Ltd. and plan and promote new oil and gas projects in Abu Dhabi.
- Accepted an investment from CEPSA, a leading integrated oil company in Spain in the IPIC(currently MIC) group, to strengthen the alliance.

《Overview》

- (1) Business
  - Promotion and management of oil E&P business at Abu Dhabi Oil Co., Ltd.
  - Planning and promotion of a new oil and gas project in Abu Dhabi of United Arab Emirates.
- (2) Established November 2014
- (3) Capital ¥4 million
- (4) Shareholders and ownership Cosmo Energy Exploration & Production Co., Ltd. 80% and CEPSA International B.V. 20%

《Shareholders》



☆ Track record in onshore oil and gas field development, mainly in North Africa and South America, as well as abundant skills and experience

☆ Trusted relationship with oil producing countries in the Middle East based on track record in offshore oil field development as an operator for almost half a century



# Cosmo The Card Opus

Starting June 2006, "Cosmo the Card Opus" was issued in affiliation with AEON Credit Service Co. Ltd.

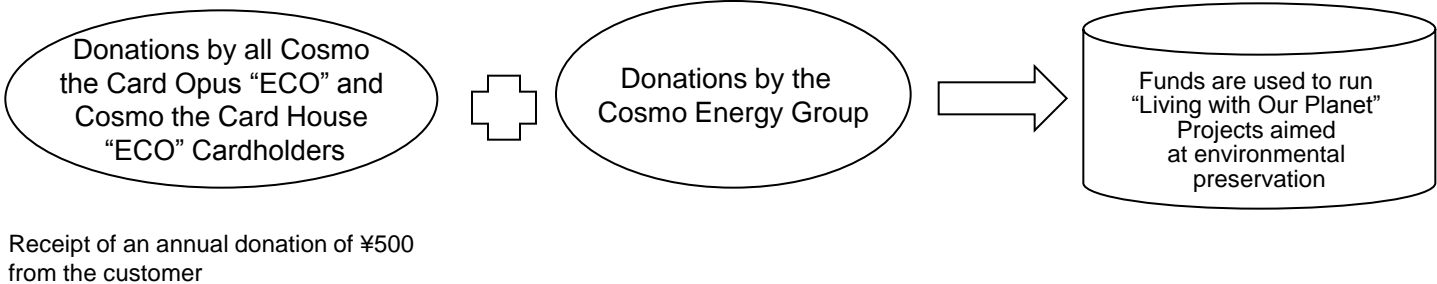
Co-branded with no annual fee international brands (VISA, MasterCard, JCB), the line-up will be able to accommodate a range of customer needs.

# Desulfurization Catalyst

The typical desulfurization process is such that sulfur (S) is removed in the form of hydrogen sulfide by reacting the sulfur contained in crude oil with hydrogen (H).  
A catalyst is used to promote this chemical reaction.

# Eco Card

Cosmo Oil's proprietary credit card providing an opportunity for its cardmembers to "participate in environmental preservation" activities in addition to the same features offered by Cosmo The Card Opus and Cosmo The Card House. Cosmo Oil issues two types of eco cards: Cosmo The Card Opus "Eco" and Cosmo The Card House "Eco."



- Note: In addition to that described above, Cosmo Oil will send to each cardmember the "Cosmo Oil Eco Card Fund Report" on environmental preservation activities and how donations from cardmembers will be used.

## Eco Power Co., Ltd.

In March 2010, Cosmo Oil acquired shares owned by Ebara Corporation in its wind power generation subsidiary, Eco Power Co., Ltd. (“Eco Power”) and made Eco Power a consolidated subsidiary. Eco Power owns wind turbines in wind-rich areas, mainly in Tohoku and Hokkaido.

<Outline of Eco Power > (End of FY2017)

- Number of sites for power generation: 162
- Number of units: 23
- Total power generating capacity: 227,000 kw

Please refer to URL : <http://www.eco-power.co.jp/project.html>

## F Index

An index that dealers use to manage their Service Stations (or to raise their cost awareness)

The primary objective of introducing this index is to have each dealer understand the ratio of the gross margin of sales of the value added merchandise (including statutory car inspection, lubricating oil change, car wash, tires, batteries and accessories and other services and products) to labor cost to draw their greater attention to cost.

A Service Station with a larger index would be stronger with value added sales.

$$\text{Calculation method} = \frac{\text{Value added gross margin}}{\text{Labor cost}} \times 100$$

E.x., F Index value of more than 100%: A value added gross margin is offset by labor cost.

F Index value of more than 120%: Labor cost is more than offset by value added gross margin,  
Strong Service Station.

## FCC (Fluid Catalytic Cracking Unit)

FCC stands for fluid catalytic cracking unit.

This is a secondary decomposition unit designed to produce a larger quantity of lighter fuel oil fractions (mainly the gasoline fraction).

## Feed-in Tariff (FIT) Scheme for Renewable Energy

- The scheme introduced by the Japanese government for the purpose of promoting the use of renewable energy across Japan
  - The scheme requiring electric companies to purchase electricity generated from renewable energy sources by existing and new facilities at a fixed price (procurement price) for a fixed period (procurement period).
  - The price and period for procurement of electricity generated from wind power:
    - Class of 20 kW or more ( Purchase price per 1 kW for the 20-year period , tax-exclusive)
    - 22 yen between FY2012 and FY2016, 21 yen in FY2017, 20 yen in FY2018, 19 yen in FY2019, 18 yen in FY2020
- (Source: "Determination of the Purchase Price, Charge Unit Price, Etc. of Renewable Energy for FY2018" published by the Agency for Natural Resources and Energy, METI on Friday 23 March, 2018)

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## Four main products

- Refers to the four oil products gasoline, kerosene, gas oil and heavy fuel oil A

## FTSE4Good Developed Index

-FTSE4Good Developed Index Series is one of the most recognized stock indexes of socially responsible investment\*2 designed to select companies that meet the environment, social and governance standards defined by FTSE Russell\*1, a member of the London Stock Exchange Group in the United Kingdom.

Cosmo Energy Holdings has been selected consecutively since 2003 when it was included as the first Japanese petroleum company.

\*1 FTSE Russell, a member of the London Stock Exchange Group in the United Kingdom, is a major provider of solutions with a focus on the establishment and management of indexes on a global scale.

\*2 SRI, or Socially Responsible Investment, refers to an investment method that individual or institutional investors apply to investment, factoring in corporate social responsibilities such as ESG, in addition to investment criteria based on the conventional analysis of financial matters.

## FTSE Blossom Japan Index

The FTSE Blossom Japan Index is a stock index, based on which TSE Russell\*1, a member of the London Stock Exchange Group in the United Kingdom, selects Japanese companies that demonstrate excellent performance from the perspective of environment, society and governance, namely, the global ESG standards. The GPIF, the world's largest investment fund, uses the index as passive management indicators for Japanese stocks.

Cosmo Energy Holdings is a component stock of the FTSE Blossom Japan Index.

\*1 FTSE Russell, a member of the London Stock Exchange Group in the United Kingdom, is a major provider of solutions with a focus on the establishment and management of indexes on a global scale.

\*2 SRI, or Socially Responsible Investment, refers to an investment method that individual or institutional investors apply to investment, factoring in corporate social responsibilities such as ESG, in addition to investment criteria based on the conventional analysis of financial matters.

## Gyxis Corporation

- Established in April 2015 by absorption-type spin-offs of LP gas import and wholesale operations of Cosmo Energy Holdings, Showa Shell Sekiyu, Former Tonen General Sekiyu and Sumitomo Corporation, with former Cosmo Petroleum Gas Co., Ltd. as the receiving company, with the aim of integrating their LP gas import and wholesale operations. Gyxis Corporation has become one of Japan's top-class LP gas import and wholesale companies by building an integrated structure through the integration of LP gas import and wholesale operations conducted by the four company groups (LP gas import/ procurement, shipping terminal operation, logistics and wholesaling) and overseas trading operations.

### 《Overview》

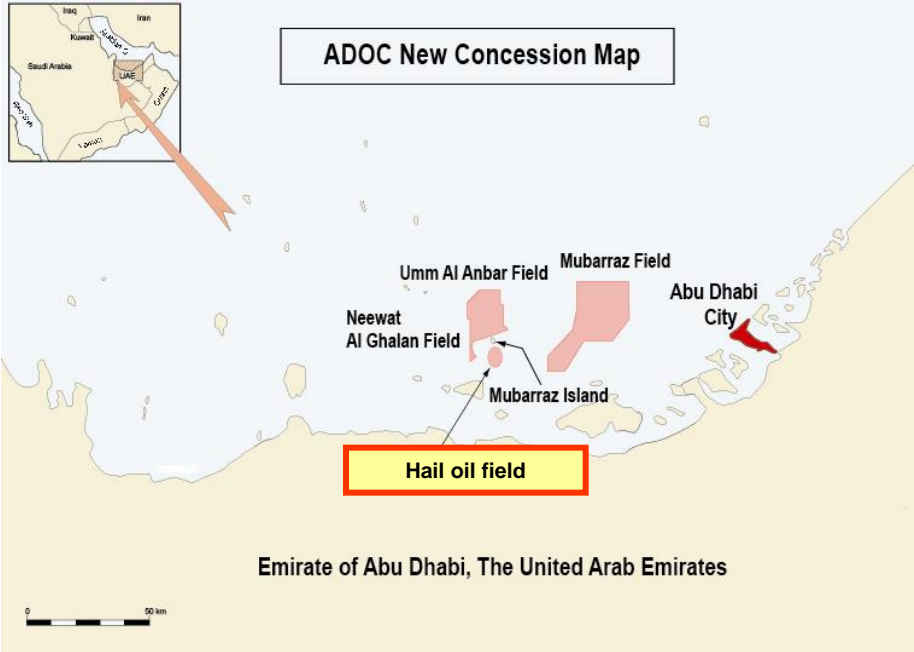
(1) Business	Manufacture, storage, transport, sale and import/export LP gas
(2) Capital	¥11.0 billion
(3) Established	April 2015
(4) Shareholders and ownership	Cosmo Energy Holdings Co., Ltd.(40%), Showa Shell Sekiyu K.K.(20%), and Sumitomo Corporation(40%)

《Company Logo》

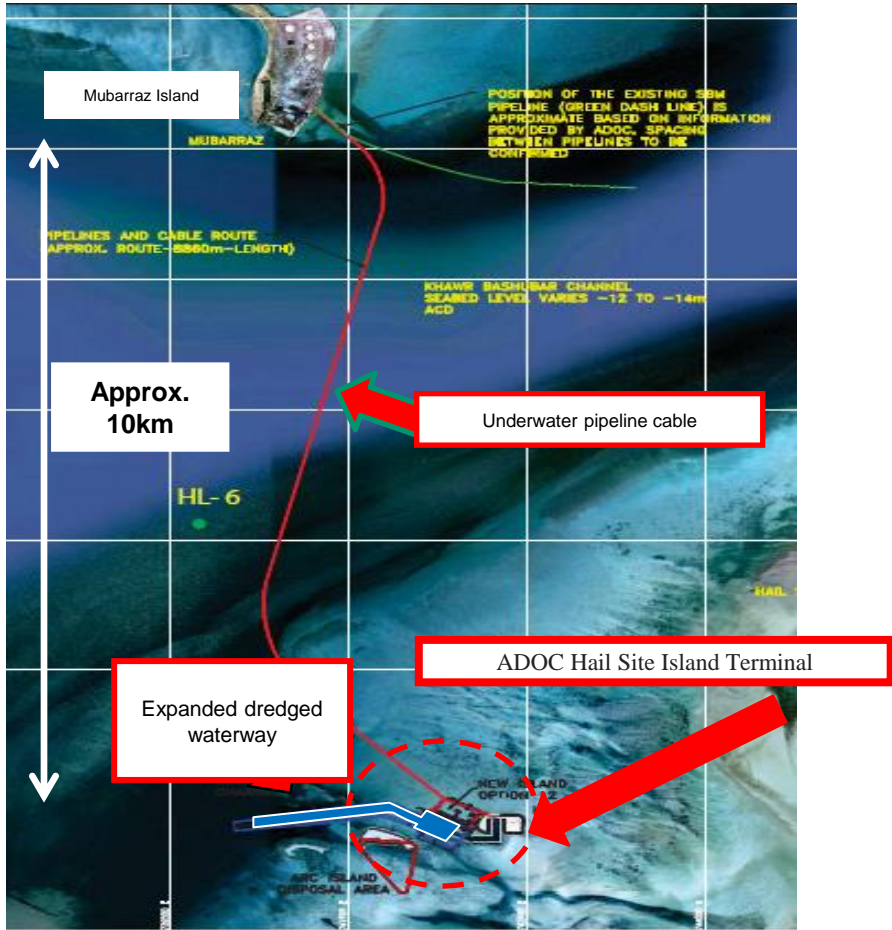


# Hail Oil Field

- We have extended our interests in existing three oil fields (Mubarraz Field, Umm Al Anbar Field and Neewat Al Ghalan Field) for 30 years since 2012 based on the solid trust built between Abu Dhabi Oil Co., Ltd. and the oil-producing country (Abu Dhabi of United Arab Emirates). We also acquired the Hail oil Field, which is expected to produce a volume equivalent to the existing three oil fields. Production began in FY 2017 and peak production reached January 2018.
- The Hail Oil Field is a large project with high cost competitiveness, which is adjacent to the existing oil fields and able to share shipping facilities. It is expected to make a significant contribution to the stable earnings of the oil E&P business of the Cosmo Energy Group.

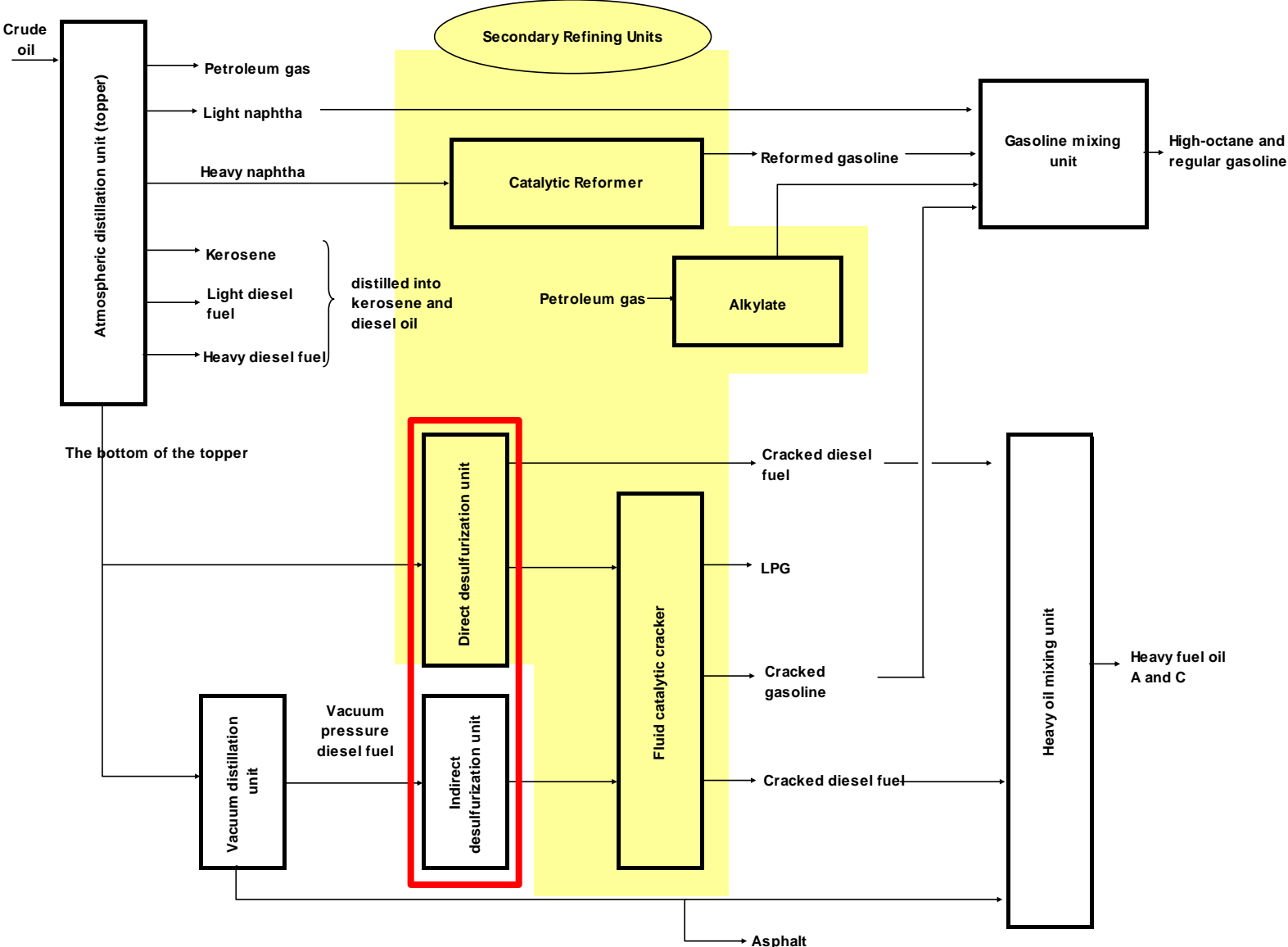


Hail oil field and existing shipping terminal (Mubarraz Island)



# Heavy Fuel Oil Desulfurization Units (Direct and Indirect)

Units designed to recover sulfur from what is in the bottom (or heavy fuel oil) of the atmospheric distillation unit



# Hybrid financing (subordinated loans)

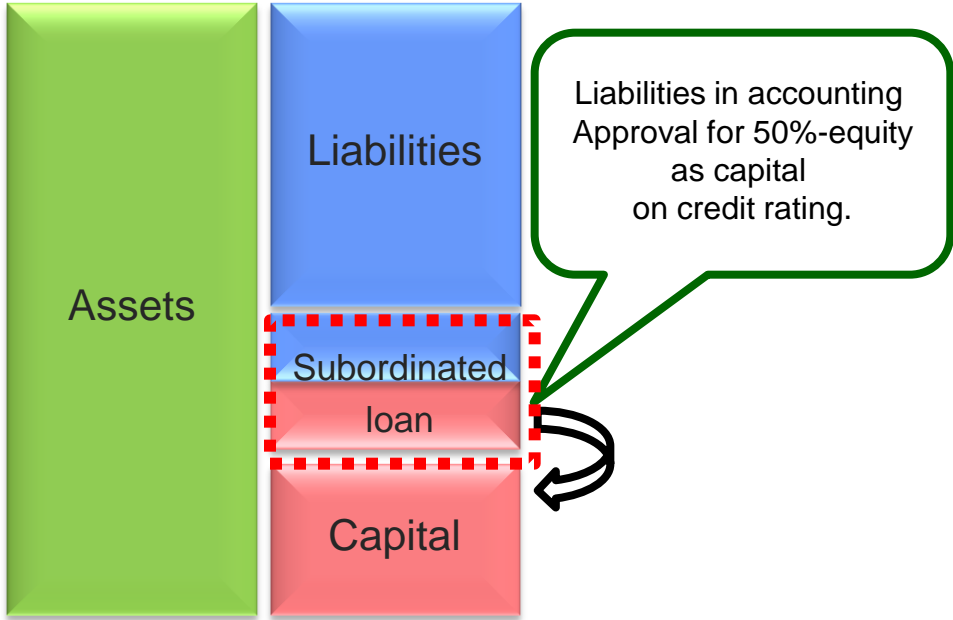
A form of hybrid financing with a nature between equity and debt. It is a financing method with a nature and characteristics similar to equity, such as the voluntary rescheduling of interest, the super-long repayment term, and subordination in liquidation proceedings and bankruptcy proceedings, although it is debt.

In the hybrid financing conducted by the Company in April 2015, an equity nature was recognized by a rating agency (Japan Credit Rating Agency, Ltd.) for up to 50% of the amount of the funds raised.

## Major Conditions

Total amount financed	¥60 billion
Borrowing period	60 years
Dates	April 1, 2015 – March 31, 2075
Equity content	50% (Japan Credit Rating Agency)
Applicable interest rate	<ul style="list-style-type: none"> <li>• April 1, 2015 – March 31, 2020 → Floating rate based on six-month euro-yen LIBOR</li> <li>• After March 31, 2020 → 1.00% step-up floating rate</li> </ul>
Investors	Mizuho Bank, Ltd. MUFG Bank, Ltd. Sumitomo Mitsui Banking Corporation

## Image of impact on balance sheet



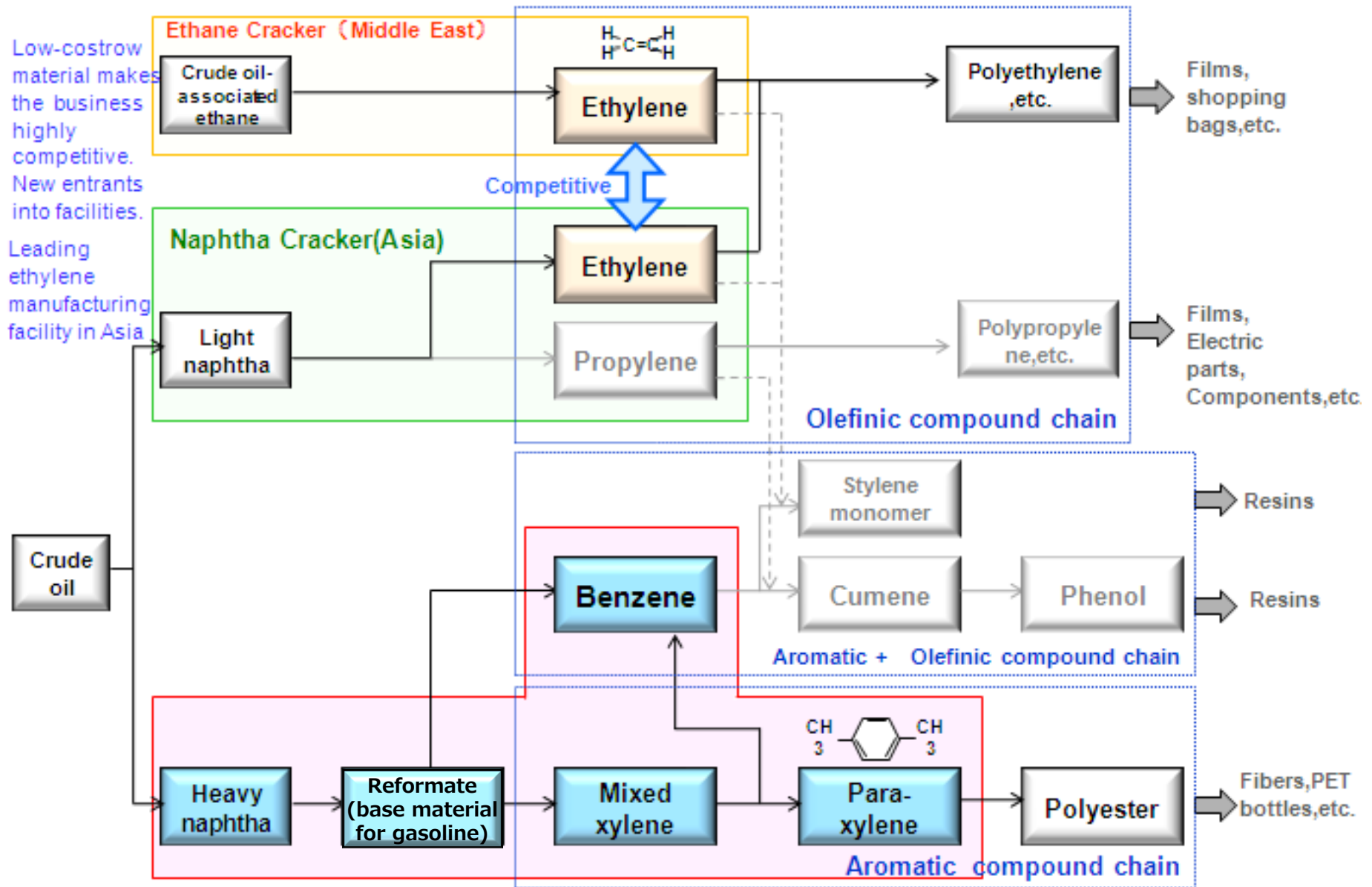
## **Hyundai Cosmo Petrochemical Co., Ltd (Ex. HC Petrochem)**

An equal joint venture company that Cosmo Oil established with Hyundai Oilbank Co., Ltd. (HDO) in November 2009. Using a paraxylene plant (with a production capacity of 380,000 tonnes per year) assigned by HDO, Hyundai Cosmo Petrochemical(HCP) started manufacturing and marketing paraxylene in February 2010. The new paraxylene production unit (with a production capacity of 800,000 tonnes per year) has been completed on November 2012. Commercial operations production and marketing of 1,180,000 tonnes of per year of paraxylene began in January 2013.

\* Please refer to “Hyundai Oilbank Co., Ltd. (HDO).”

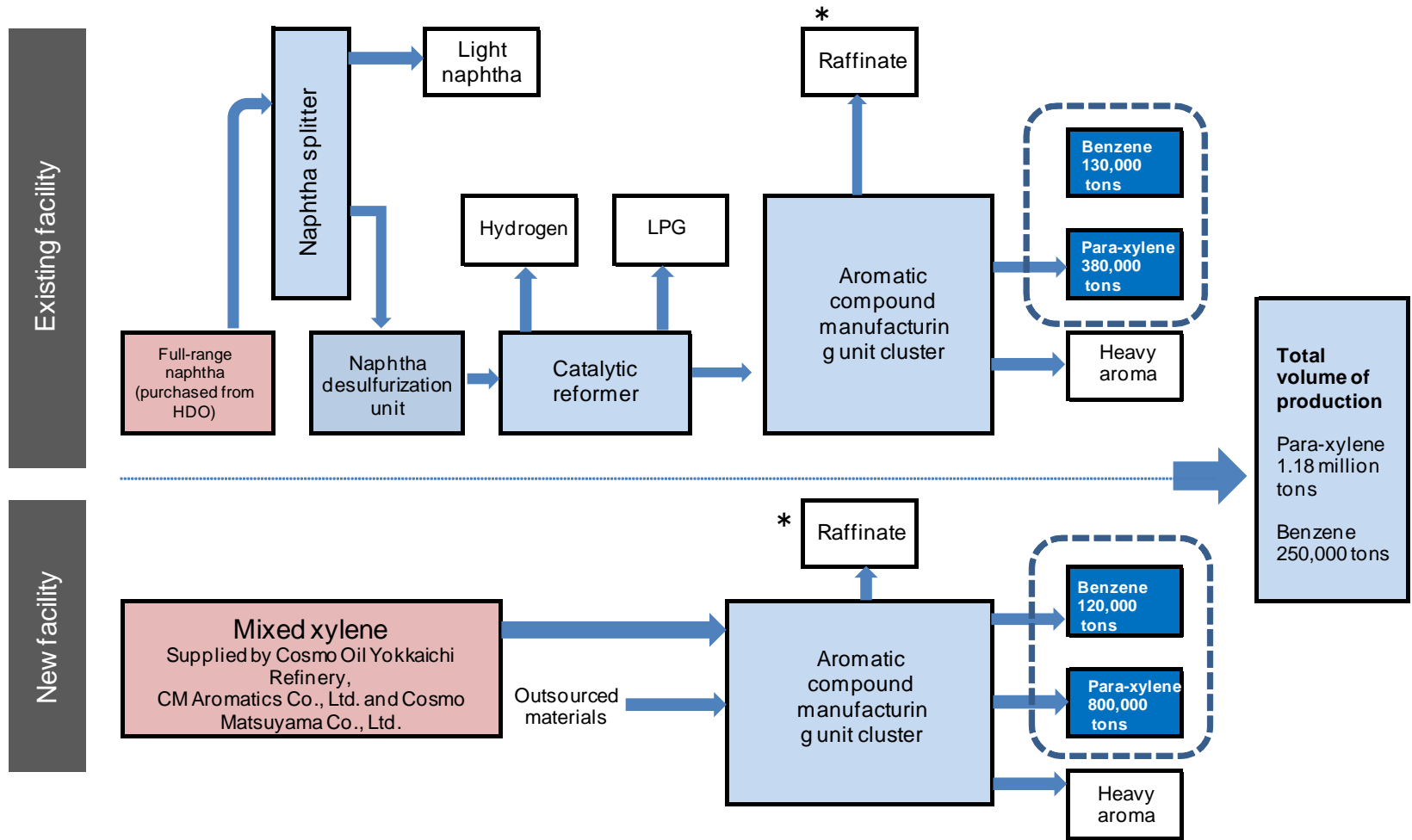


※ Visualized Concept for Olefinic and Aromatic Products



The red framed indicates the scope of business done by Hyundai Cosmo Petrochemical Co., Ltd. (HCP)

※ Para-xylene manufacturing facility structure in the JV business:



\* The raffinate collectively refers to a product that remains insoluble in a solvent extracted in the solvent extraction process.

## Hyundai Oilbank Co., Ltd. (HDO)

HDO is an oil refining and marketing company based in the Republic of Korea. Established in 1964, HDO processes crude oil at 561,000 barrels a day.

As part of its joint projects with IPIC, Cosmo Oil in April 2008 signed a memorandum of understanding for comprehensive and strategic cooperation of the oil business with HDO. In June 2009, the two parties signed a memorandum of agreement in relation to the establishment of a joint venture company (JVC) for para-xylene business collaboration and in October 2009, the parties signed a memorandum of agreement for the establishment of the JVC to undertake the para-xylene business. Cosmo Oil and HDO established a joint venture company (Hyundai Cosmo Petrochemical Co., Ltd.) in November 2009.

Please refer to “Hyundai Cosmo Petrochemical Co., Ltd.”

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## IMO regulations

Regulations adopted by the International Maritime Organization (IMO) to reduce sulphur oxide (SOx) emissions from ships for the prevention of air pollution. The IMO decided to cut sulphur limits in bunker fuel from 3.5 per cent to 0.5 per cent (reduction of 3.0%) from 2020.

## Impact of inventory valuation

The “impact of inventory valuation” indicates the impact on the cost of sales in the financial statements, according to the inventory valuation method, when there is a change in the price of crude oil. It can be separated into the following two categories:

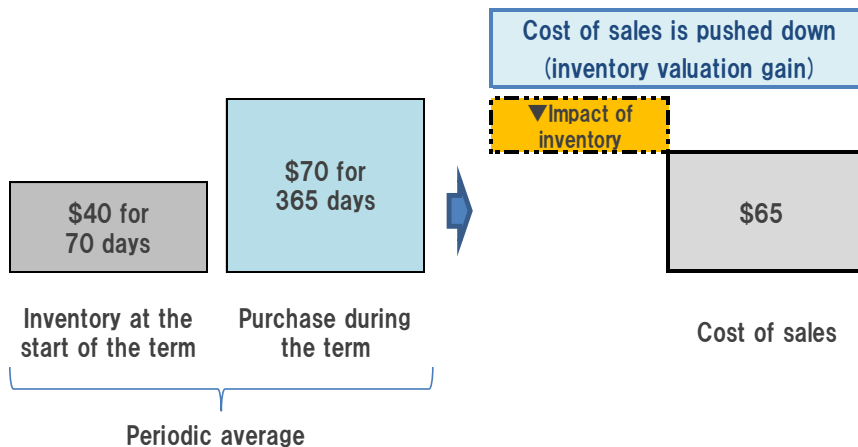
### 【Inventory valuation impact based on the periodic average method】

This indicates the impact in terms of income based on the “periodic average method,” which is an inventory valuation method. In a phase when crude oil prices rise, the cost of sales is pushed down (cost decrease = inventory valuation gain) because the unit prices of purchased inventory that have risen during the term are averaged with the lower inventory unit prices at the start of the term. Conversely, in a phase when crude oil prices fall, the cost of sales is pushed up (cost increase = inventory valuation loss) because the unit prices of purchased inventory that have fallen during the term are averaged with the higher inventory unit prices at the start of the term.

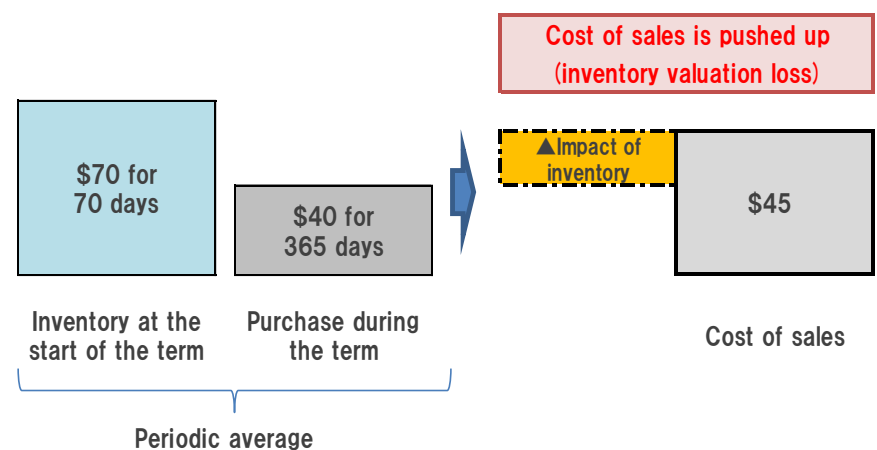
### 【Inventory valuation impact based on reduction in book value】

If the market value of inventory at the end of the term falls below the book value, it is necessary to reduce the book value to the market value, and this indicates that a resulting loss is incurred (cost increase = inventory valuation loss).

#### 【Phase when crude oil prices rise ↑】



#### 【Phase when crude oil prices fall ↓】

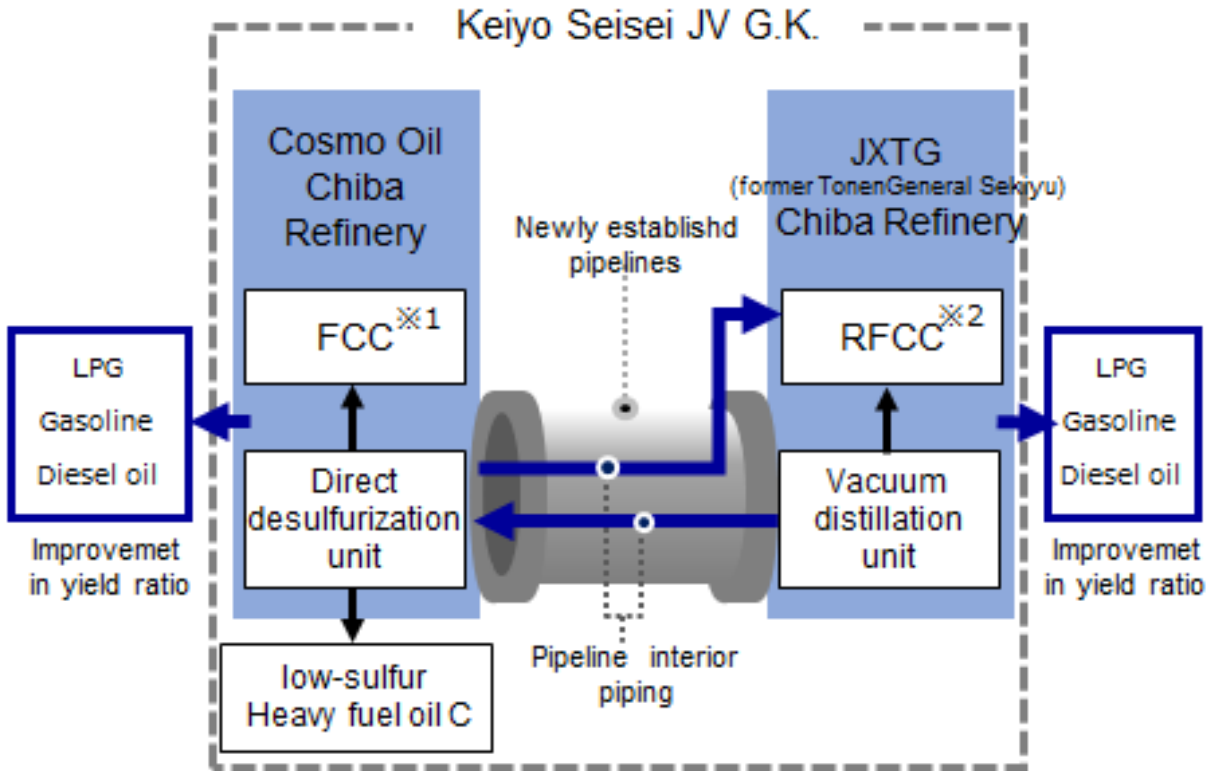


# Keiyo Seisei JV G.K.

Joint venture company established with JXTG(Former Tonen General Sekiyu) in January 2015.  
(Ownership: Cosmo Oil and JXTG = 50:50)

Construction work of a pipeline that connects Chiba refineries of the both companies began in June 2015.  
It aims to create total synergy ( the two companies combined) of more than 10 billion yen a year after completion of the pipeline (mid-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.

## **Kygnus Sekiyu K.K.**

Signed a capital and business alliance agreement with Kygnus Sekiyu K.K. in February 2017.

Acquired 20% of common shares of Kygnus Sekiyu K.K. in May 2017.

Planning to trade petroleum products in about 2020 based on this alliance.

Will have discussions and examinations not only for fuel oil supply, but also for other business alliances.

### < Overview >

(1) Business: Buying and selling petroleum and petrochemical products

(2) Capital: 2 billion yen

(3) Established: Feb. 1972

(4) Shareholder: SAN-AI OIL CO.,LTD. (80%),Cosmo Energy Holdings Co.,Ltd.(20%)

(5) Volume of fuel oil sales\*: 4,160,000 KL /year

(6) Number of SS\*: 459

\*As of Mar. 31, 2017

# Maruzen Petrochemical Co., Ltd.

We made Maruzen Petrochemical Co., Ltd., which had been an equity-method affiliate, a consolidated subsidiary in March 2016 with the acquisition of additional shares.

With one of the largest ethylene production capacities in Japan, it continues to supply high-quality products and has solid financial strength.

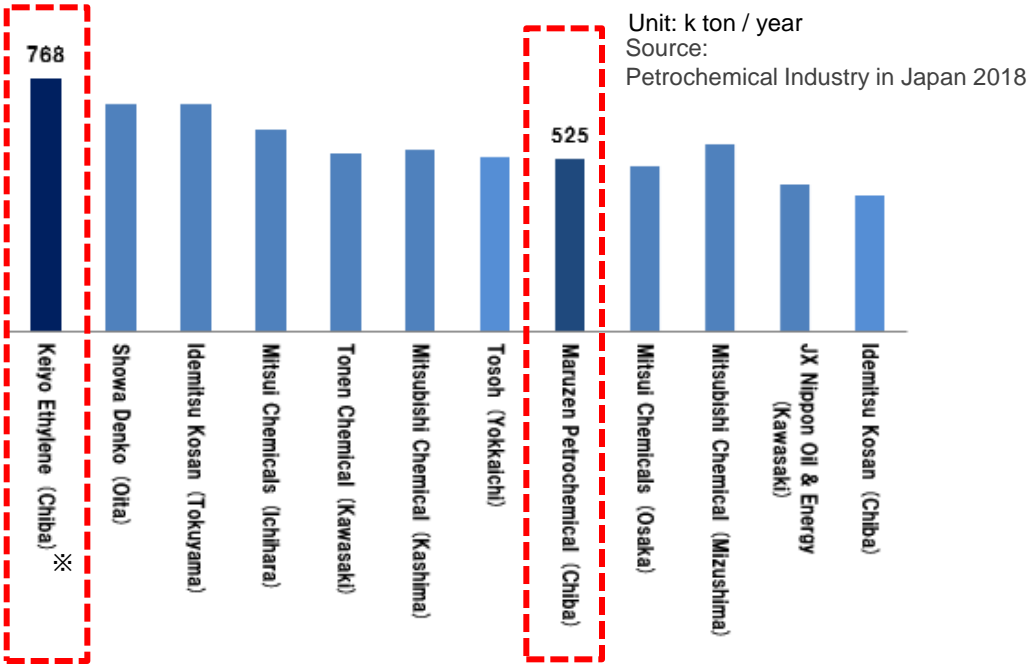
## Overview of Maruzen Petrochemical Co., Ltd.

Business	Manufacture and sale of basic petrochemical products such as ethylene, propylene and benzene, solvents such as methyl ethyl ketone, and other functional chemicals	
Established	October 10, 1959	
Capital	10 billion yen	
Shareholders	Company	Ratio of voting rights
	Cosmo Energy Group ※	52.7%
	Ube Industries, Ltd.	13.2%
	Denka Co., Ltd.	13.2%
	JNC Corporation	13.2%
	Other	7.7%

※Cosmo Energy Holdings Co., Ltd., and Cosmo Matsuyama Oil Co., Ltd.

## Domestic production capacity of ethylene

Maruzen Petrochemical uses its two plants, including Japan's largest and newest plant for naphtha cracker, to remain competitive in Japan.

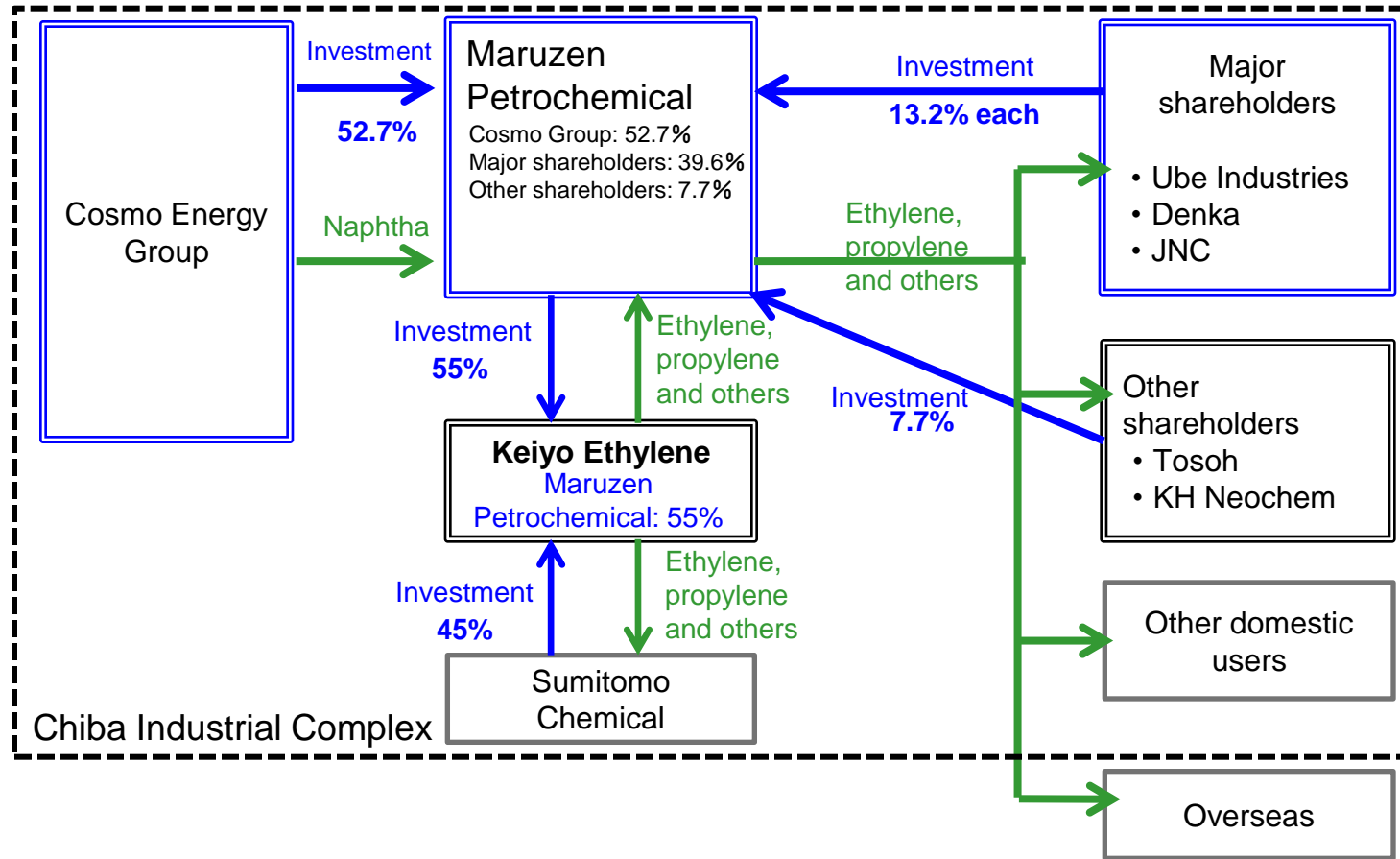


※Keiyo Ethylene Co., Ltd. is a consolidated subsidiary of Maruzen Petrochemical with a 55% stake.

# 《Capital Relationship with Industrial Complex of Maruzen Petrochemical》

→ Product flow

→ Investment (Ratio of voting rights)





## MIC

Mubadala Investment Company (MIC).

IPIC and Mubadala Development Company (MDC) merged in January 2017 and founded MIC as a holding company. Large total assets of 125 billion dollars; Sovereign wealth fund wholly owned by the Abu Dhabi government.

Balanced and wide-ranging investments in petroleum, petrochemicals, renewable energy, aerospace, real estate, and other industries.

MIC owns about 20% of Cosmo Energy Holdings shares because IPIC (now MIC) accepted a third-party allotment offered by the company.

## Mixed Xylene

A raw material used to manufacture para-xylene. Mixed xylene is mainly produced based on reformat (base material for gasoline) that is manufactured by an oil company. Please refer to "Para-xylene."

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## MOPS (Mean of Platts Singapore)

Average of a set of FOB (Free on Board) Singapore-based oil product price assessments published by Platts.

# Operations Management System (OMS)

- OMS is a mechanism to set an activity policy consisting of 23 requirements as essential and important items to achieve safe operation and stable supply and for the head office and refineries to enhance their efforts in each activity based on the policy.
- Cosmo Oil, which assumes the supply sector of the Cosmo Energy Group, established its own Operation Management System (OMS), which is the company-wide unified management system to maintain the appropriate operation management and promote continuous improvement thereof, and began operating it in January 2016.
- Cosmo Oil aims to achieve the safe operation and stable supply of the world standard or better by continuously operating and strengthening the OMS.

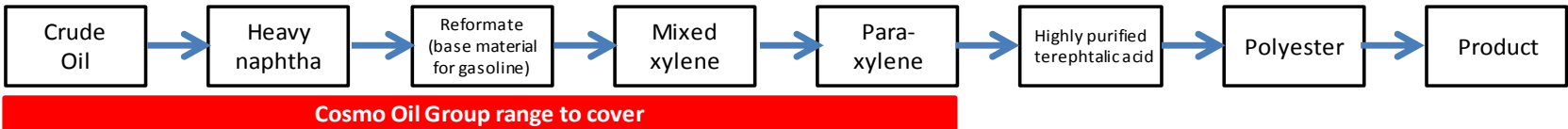
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## Other four main products

Refers to oil products other than the four main products. Primarily naphtha, jet fuel and heavy fuel oil C.

## Para-Xylene (PX)

- Aromatic compounds that are used to manufacture PET bottles and polyester textile products.
- Production Process from Crude Oil to Product .



→Mixed xylene: Please refer to the section of “CM Aromatics Co., Ltd  
→Para-xylene: Please refer to the sections of “Hyundai Oilbank Co., Ltd.” and “Hyundai Cosmo Petrochemical Co., Ltd.”

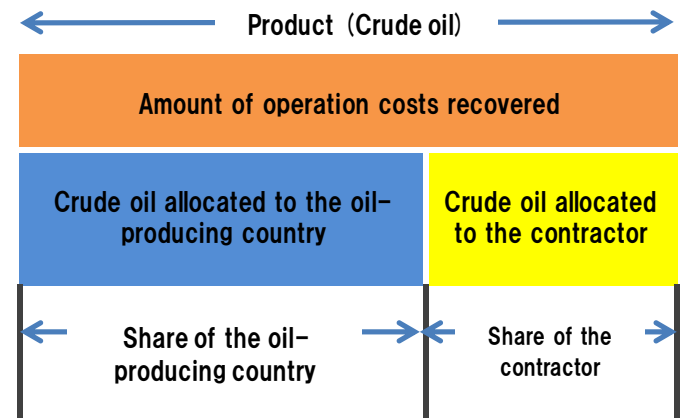
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## Platts

A Provider of oil price information. Prices released by Platts are key benchmarks used to price Middle East crude and petroleum products shipped to Asia.

## Production sharing contract (PS contract)

- A contract by which one or more than one petroleum and natural gas development company contracts for exploration and development works at its own costs from the government or a state-run oil company of an oil-producing country as a contractor and recovers the costs and receives payments by products.
- If oil or natural gas comes to be produced as a result of exploration and development works, the contractor will recover the exploration and development costs from certain of the products and allocate the remaining products between the government or the state-run oil company and the contractor according to a certain allocation ratio.



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## Regular maintenance

Major maintenance work carried out periodically at oil refineries.

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## Rig

Unit used in oil exploration and oil well drilling

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## RIM prices

Generic term for domestic rack (land-based) spot price and waterborne spot price released by RIM INTELLIGENCE Co.

## Sales Unit, or Service Station Sales Unit

A monthly sales volume of automobile fuel oil per Service Station

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## SDGs (Sustainable Development Goals)

The Sustainable Development Goals (SDGs) comprise 17 goals and 169 targets set and ratified by the UN in 2015 for the 193 UN member states to achieve over the 15 years from 2016 to 2030.

## Sogo Energy Corporation

In November 2012, Cosmo Oil acquired all the shares (97.08%) owned by Sojitz Corporation in its subsidiary, Sojitz Energy Co., Ltd. In February 2013, the name of corporation changed from 'Sojitz Energy Corporation' to 'Sogo Energy Corporation'. The numerous procurement sources, loyal customers, talented personnel and know-how of Sojitz Energy, will all strongly contribute to Cosmo Oil's domestic marketing strategy, and furthermore, create significant synergies in our supply stability and logistics network.

« Company Logo »

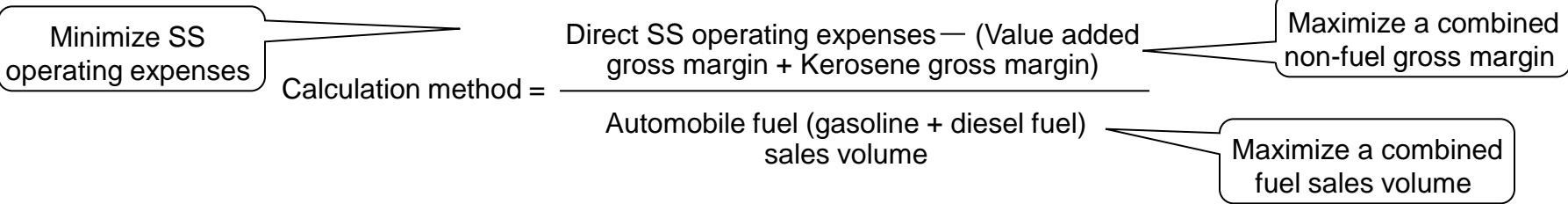


# Service Station (SS) NV Index

This refers to a management evaluation index that provides navigation for SS operators to strengthen their management of SSs (or to build the management basis to improve profitability even if they face such an unfavorable business environment that may reduce operating margins).

The primary objective of the introduction of this index is to have SS operators understand the management policy of minimizing costs to operate an SS, while maximizing a value added gross margin (to be earned from selling statutory car inspection, lubricating oil change, car wash and other services and tires, batteries and accessories and other products) and gasoline and diesel fuel sales.

A dealer would become stronger if it achieves a smaller index value (or even minus figures).



NEW

## Stockpiling obligations

Japan has mandatory requirements for government crude oil stockpiling (target: 50 million kl) and private oil stockpiling (target: equivalent of 70 days of domestic demand) to ensure a stable supply.

## Three core companies

- Collective term for Cosmo Energy Exploration & Production Co., Ltd. (oil development and production), Cosmo Oil Co., Ltd. (oil refining) and Cosmo Oil Marketing Co., Ltd. (sale of petroleum products and the retail business, etc.)

## Topper ( Crude Distillation Unit )

An atmospheric distillation unit. Generally speaking, the crude oil processing capacity of an oil refinery is represented by its CDU's processing capacity per day.

NEW

## VLCC(Very Large Crude Oil Carrier)

A type of large tanker used to transport crude oil that can transport between 200,000 tons and 300,000 tons.

## Wind power generation

→ Please refer to “EcoPower Co., Ltd.”

## Yokkaichi Kasumi Power Co., Ltd. (electricity wholesale supplier)

Established for the business of generating electricity by means of petroleum cokes as well as conventional residual oil, using Yokkaichi Kasumi Power Plant of Cosmo Oil

### 《Overview》

- |                                |  |
|--------------------------------|--|
| (1) Business                   | Electric power generation and selling business                             |
| (2) Power generating capacity  | 200,000kW  |
| (3) Established                | February 2016  |
| (4) Capital                    | ¥10.5 billion (including legal capital surplus)                            |
| (5) Shareholders and ownership | Cosmo Energy Holdings Co., Ltd. 61% and Development Bank of Japan Inc. 39% |