Security Code	Tokyo 5020

Supplementary Information

～ JX Group A to Z ～

February 3, 2016

The Future of Energy, Resources and Materials

JX Holdings, Inc.

Contents

Summaries of businesses and Financial Results

Summary of JX Group's Businesses

JX Holdings, Inc.

Energy Business

Market share of domestic sales of petroleum products

Approx. 35%*1 (No.1 in Japan)

Market share of domestic sales of lubricant products

Approx. 37%*2 (No.1 in Japan)

Paraxylene supply capacity

3,120 thousand tons/year *3

(No.1 supplier in Asia)

Oil and Natural Gas Exploration and Production Business

Crude oil and natural gas sales volume (a project company basis)

Approx. 115 thousand barrels/day (B/D) *4

Worldwide business activities in such areas as Malaysia, Vietnam, North Sea (UK), Middle East and others

Metals Business

Equity entitled copper mine production

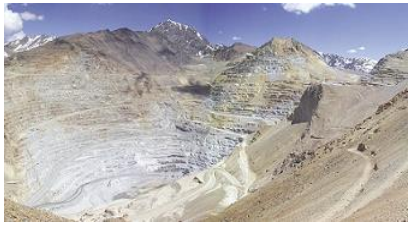
Approx. 150 thousand tons/year *5

Refined copper production capacity

1,330 thousand tons/year *6

Electronic Materials;

Products with world No.1 market shares



Listed subsidiaries and Others

NIPPO

Toho Titanium*7

Common function companies

Independent companies

*1 FY2014 actual *2 FY2014 actual *3 As of Mar. 2015

*4 Crude oil equivalent (average daily production from Jan. to Dec. 2014 actual)

*5 Equity entitled copper production contained in copper concentrate (CY2014 actual)

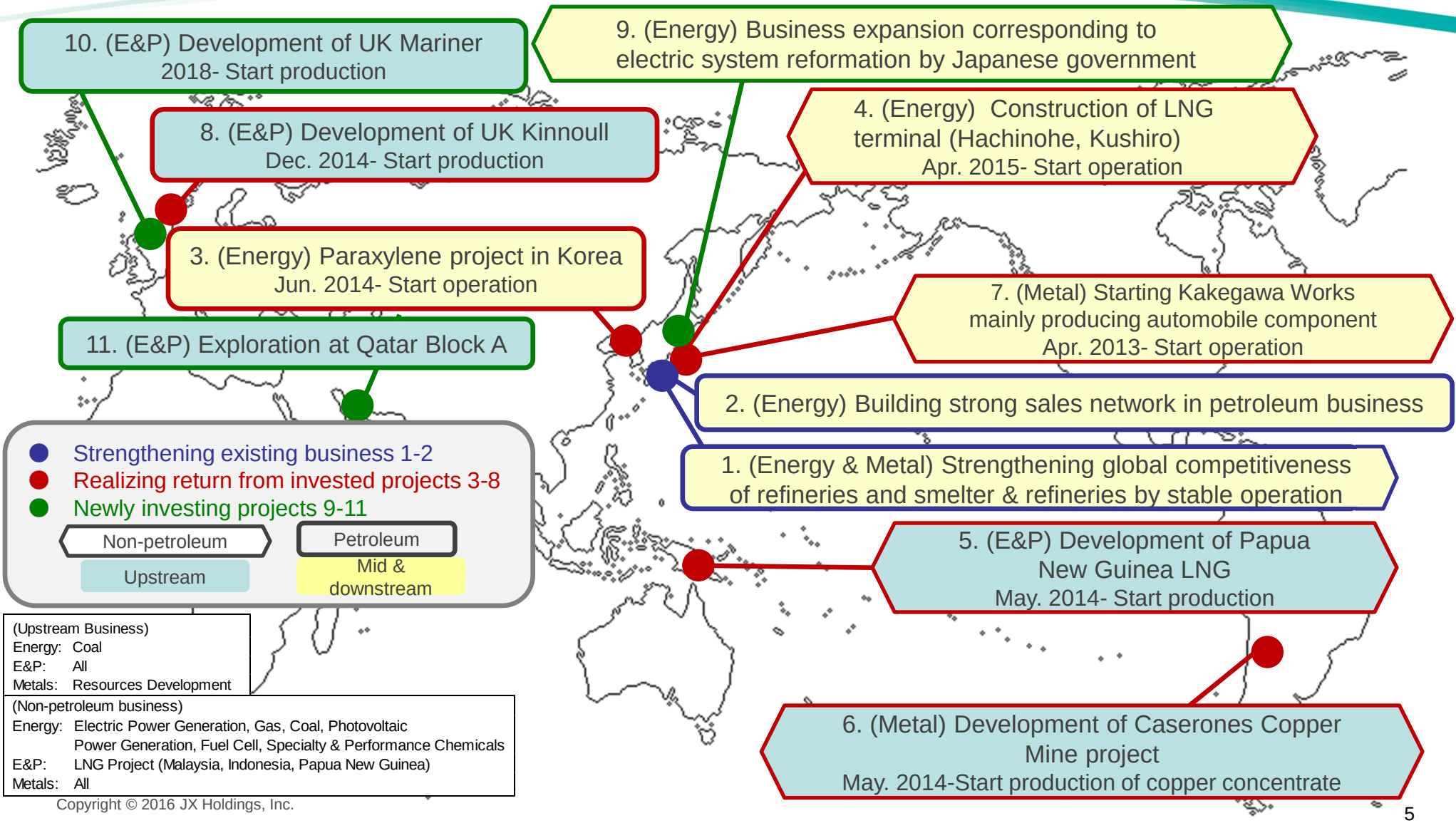
*6 Pan Pacific Copper (67.6% equity stake) ; 650 thousand tons/year + LS-Nikko Copper (39.9% equity stake) ;680 thousand tons/year (As of Mar. 2015)

*7 Profit and loss of Toho Titanium is included in the Metals Business.

Forecast for FY2015

		Forecast for FY2015 (November. 2015)	Forecast for FY2015 (February. 2016)	2'nd Mid-term Mgt. Plan
Key Factors (FY2015)	Exchange Rate	121 yen/$	121 yen/$	90 yen/$
	Crude Price (Dubai spot))	53 $/bbl	48 $/bbl	110 $/bbl
	Copper Price(LME)	243 ¢/lb	234 ¢/lb	360 ¢/lb
Index	Ordinary Income	150 billion yen	(55) billion yen	400 billion yen or more
	Ordinary Income Excl. inventory valuation	230 billion yen	210 billion yen	
	ROE	2%	(19)%	10% or higher
	Net D/E Ratio	1.2 times	1.5 times	0.9 times or lower
	Capex	1,280 billion yen or less (FY2013-2015 total)	1,280 billion yen or less (FY2013-2015 total)	1,300+α billion yen (FY2013-2015 total)

Highlight of Major Projects



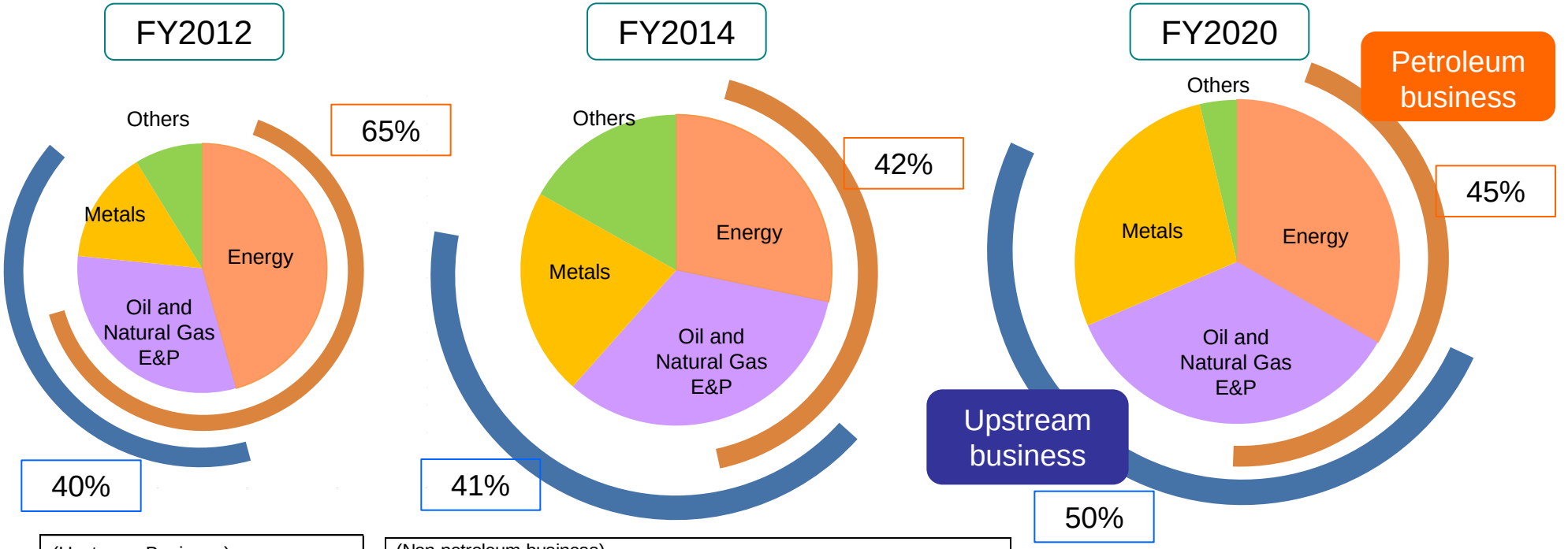
(Upstream Business)
Energy: Coal
E&P: All
Metals: Resources Development

(Non-petroleum business)
Energy: Electric Power Generation, Gas, Coal, Photovoltaic Power Generation, Fuel Cell, Specialty & Performance Chemicals
E&P: LNG Project (Malaysia, Indonesia, Papua New Guinea)
Metals: All

Target of JX Group (2020)

Well-balanced business portfolio
petroleum and non-petroleum, upstream and mid & downstream business

Balance of ordinary income
excl. inventory valuation



(Upstream Business)
Energy: Coal
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(Non-petroleum business)
Energy: Electric Power Generation, Gas, Coal, Photovoltaic Power Generation, Fuel Cell, Specialty & Performance Chemicals
E&P: LNG Project (Malaysia, Indonesia, Papua New Guinea)
Metals: All

Financial Summary

(JPY billion)	FY2014 1H Actual	FY2014 3Q (Apr.-Dec.) Actual	FY2014 Full Year Actual	FY2015 1H Actual	FY2015 3Q (Apr.-Dec.) Actual	FY2015 Full Year Forecast (Feb. 2016)
Net Sales	**5,442.4**	**8,343.6**	**10,882.5**	**4,552.6**	**6,689.0**	**8,700.0**
Energy	4,617.0	7,075.1	9,124.8	3,742.5	5,503.9	7,100.0
Oil and Natural Gas E&P	104.4	161.5	226.4	90.3	134.8	180.0
Metals	550.0	842.0	1,156.0	563.2	792.8	1,000.0
Others	171.0	265.0	375.3	156.6	257.5	420.0
Operating Income (Loss)	**14.3**	**(205.4)**	**(218.9)**	**(45.5)**	**(79.3)**	**(100.0)**
Energy	(46.9)	(306.0)	(365.3)	(91.0)	(141.7)	(159.0)
Oil and Natural Gas E&P	34.1	52.6	75.4	14.6	20.7	16.0
Metals	11.2	23.0	33.2	16.8	14.1	10.0
Others	15.9	25.0	37.8	14.1	27.6	33.0
Ordinary Income (Loss)	**42.0**	**(171.5)**	**(150.1)**	**(27.7)**	**(52.9)**	**(55.0)**
Energy	(35.3)	(294.9)	(334.6)	(72.4)	(115.5)	(120.0)
Oil and Natural Gas E&P	34.7	55.0	84.9	17.3	21.6	18.0
Metals	23.9	38.5	56.6	10.6	8.8	7.0
Others	18.7	29.9	43.0	16.8	32.2	40.0
Profit attributable to owners of parent	**17.7**	**(134.0)**	**(277.2)**	**(44.9)**	**(113.4)**	**(330.0)**
Energy	(14.3)	(173.9)	(292.2)	(54.0)	(90.5)	(120.0)
Oil and Natural Gas E&P	10.7	17.2	2.4	3.5	(11.2)	(196.0)
Metals	13.1	10.2	(5.7)	0.0	(43.2)	(50.0)
Others	8.2	12.5	18.3	5.6	31.5	36.0
Capex	215.0	305.0	420.0	151.0	227.0	360.0
Depreciation and Amortization	93.6	142.6	197.3	111.0	169.1	240.0

Ordinary Income by segment

(JPY billion)	FY2014 1H Actual	FY2014 3Q (Apr.-Dec.) Actual	FY2014 Full Year Actual	FY2015 1H Actual	FY2015 3Q (Apr.-Dec.) Actual	FY2015 Full Year Forecast (Feb. 2016)
Ordinary Income (Loss)	42.0	(171.5)	(150.1)	(27.7)	(52.9)	(55.0)
Energy Business	(35.3)	(294.9)	(334.6)	(72.4)	(115.5)	(120.0)
Petroleum Products	(14.0)	(10.3)	57.1	11.7	40.8	72.0
Petrochemicals	9.2	9.2	15.1	32.5	51.8	68.0
Inventory Valuation	(30.5)	(293.8)	(406.8)	(116.6)	(208.1)	(260.0)
Oil and Natural Gas E&P Business	34.7	55.0	84.9	17.3	21.6	18.0
Metals Business	23.9	38.5	56.6	10.6	8.8	7.0
Resources Development	9.7	11.9	18.1	(5.5)	(18.3)	(30.0)
Smelting and Refining	7.4	12.4	16.8	3.0	8.0	11.0
Electronic Materials	6.3	11.1	16.6	10.9	16.0	22.0
Recycling and Environmental Services	3.4	5.0	6.7	2.7	3.8	5.5
Titanium	(3.8)	(3.7)	(3.1)	1.6	2.8	3.5
Inventory Valuation	0.9	1.8	1.5	(2.1)	(3.5)	(5.0)
Others	18.7	29.9	43.0	16.8	32.2	40.0

Balance Sheets

(JPY billion)	Dec. 2014 Actual	Mar. 2015 Actual	Dec. 2015 Actual
Total assets	**7,868.0**	**7,423.4**	**7,062.9**
Current assets	3,548.6	2,996.4	2,752.8
- Cash and deposits	243.7	329.3	254.3
Noncurrent assets	4,319.4	4,427.0	4,310.1
Property, plant and equipment	2,496.0	2,555.6	2,478.3
Intangible assets	130.1	136.2	127.4
Investments and other assets	1,693.3	1,735.2	1,704.4
Liabilities	**5,388.3**	**4,993.6**	**4,878.5**
Interest-bearing debt	2,931.5	2,620.3	2,703.1
Other liabilities	2,456.8	2,373.3	2,175.4
Net assets	**2,479.7**	**2,429.8**	**2,184.4**
Shareholders' equity	1,769.6	1,626.4	1,472.7
Accumulated other comprehensive income (loss)	223.9	310.4	265.0
Non-controlling interests	486.2	493.0	446.7

Performance Indicators

(JPY billion)	FY2014 3Q (Apr.-Dec.) Actual	FY2014 Full Year Actual	FY2015 3Q (Apr.-Dec.) Actual
Cash flows from operating activities	229.9	737.2	130.8
(Working capital)	266.1	725.0	14.6
Cash flows from investing activities	(305.0)	(377.8)	(229.5)
Free cash flows	(75.1)	359.4	(98.7)
Dividend and others	(61.3)	(65.4)	(56.0)
Net cash flows	(136.4)	294.0	(154.7)

	Dec. 2014 Actual	Mar. 2015 Actual	Dec. 2015 Actual
Net D/E Ratio (times)	1.35	1.18	1.41
Shareholders' equity ratio (%)	25.3	26.1	24.6

Equity in earnings of unconsolidated subsidiaries and affiliates

(JPY billion)	FY2014 1H Actual	FY2014 3Q (Apr.-Dec.) Actual	FY2014 Full Year Actual	FY2015 1H Actual	FY2015 3Q (Apr.-Dec.) Actual	FY2015 Full Year Forecast (Feb. 2016)
Energy	2.1	3.9	6.8	3.1	6.4	6.0
Oil and Natural Gas E&P	3.2	3.9	5.9	0.6	0.4	0.0
Metals	18.3	23.5	33.1	0.6	4.7	7.0
Resources Development	15.4	18.9	27.6	9.7	11.5	12.0
Smelting and Refining	2.9	4.6	5.5	(9.1)	(6.8)	(5.0)
Others	0.8	1.2	1.3	0.6	1.1	1.0
Total	24.4	32.5	47.1	4.9	12.6	14.0

Shareholder Return Policy

Basic Shareholder Return Policy

Redistribute profits by reflecting consolidated business results
while striving to maintain stable dividends

Indication of Shareholder Return for 2nd Medium-Term Management Plan Period

Based on the basic policy, during the 2nd medium-term
management plan period (FY2013-2015),
we will strive to maintain dividends of 16 yen per share per annum.
When we secure stable profitability in existing business and
foresee realization of return from strategic investments,
we will expand shareholder return centering on increase of dividend.

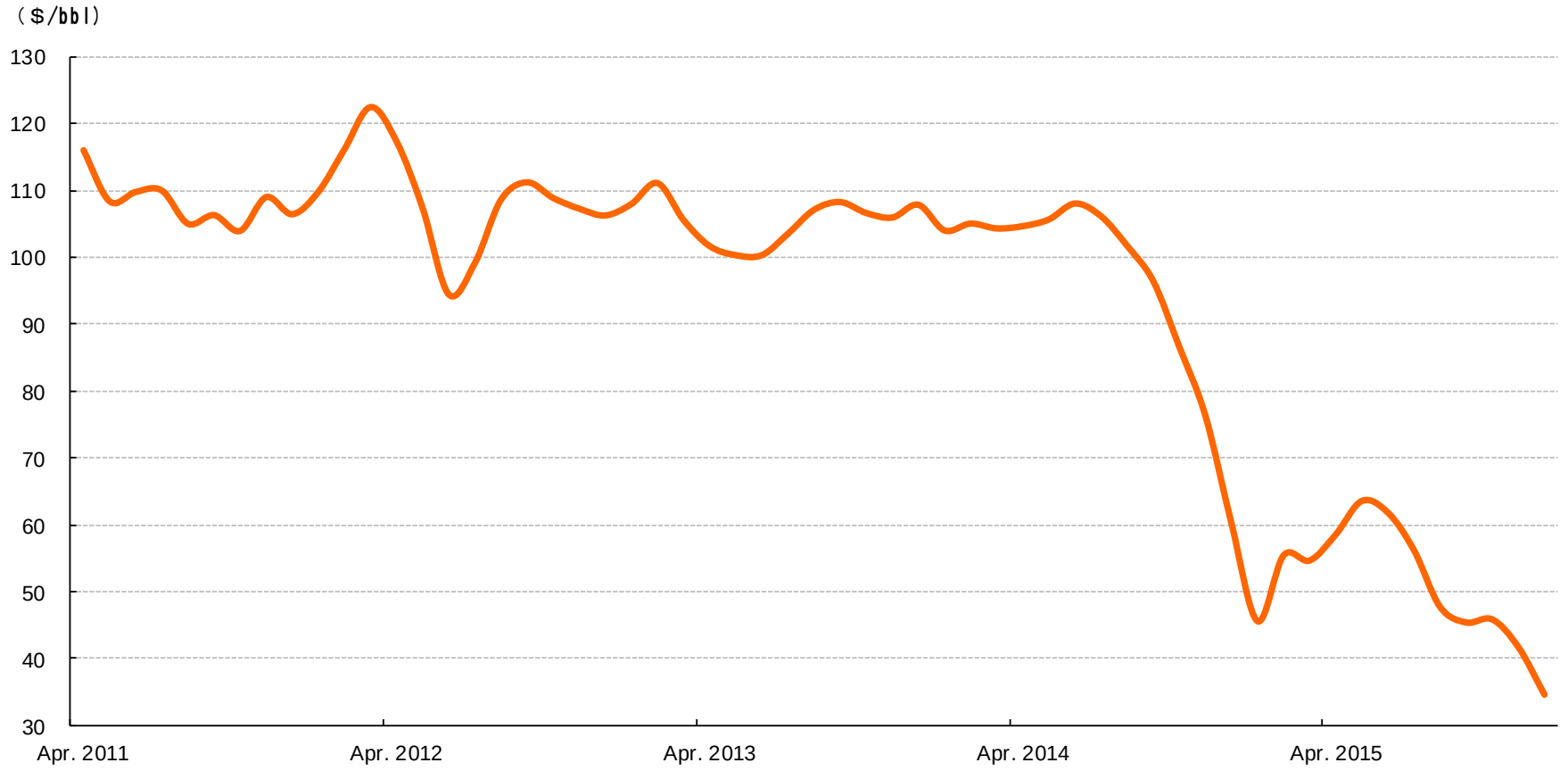
Reference) Dividend from FY2010-2015

	2010	2011	2012	2013	2014	2015 (Forecast)
Dividend (yen/share)	15.5	16.0	16.0	16.0	16.0	16.0
EPS (yen/share)	125	69	64	43	-111	-133

Historical Dubai Crude Oil Price

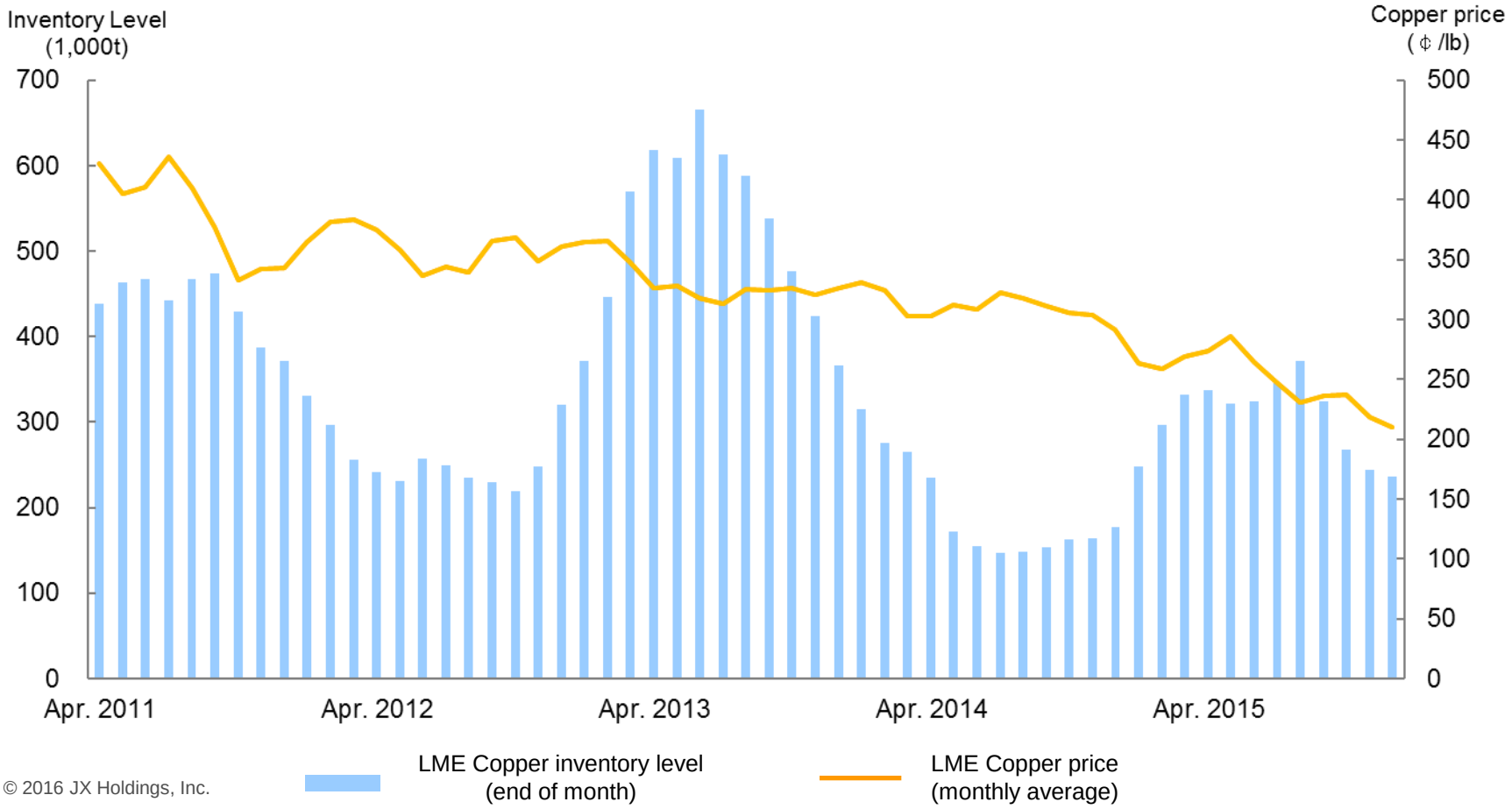
($/bbl)

Average Price	FY2011	FY2012	FY2013	FY2014					FY2015		
				1Q	2Q	3Q	4Q	FY	1Q	2Q	3Q
Dubai Crude Oil	110	107	105	106	101	74	52	83	61	50	41



Historical Copper Price and Inventory Level

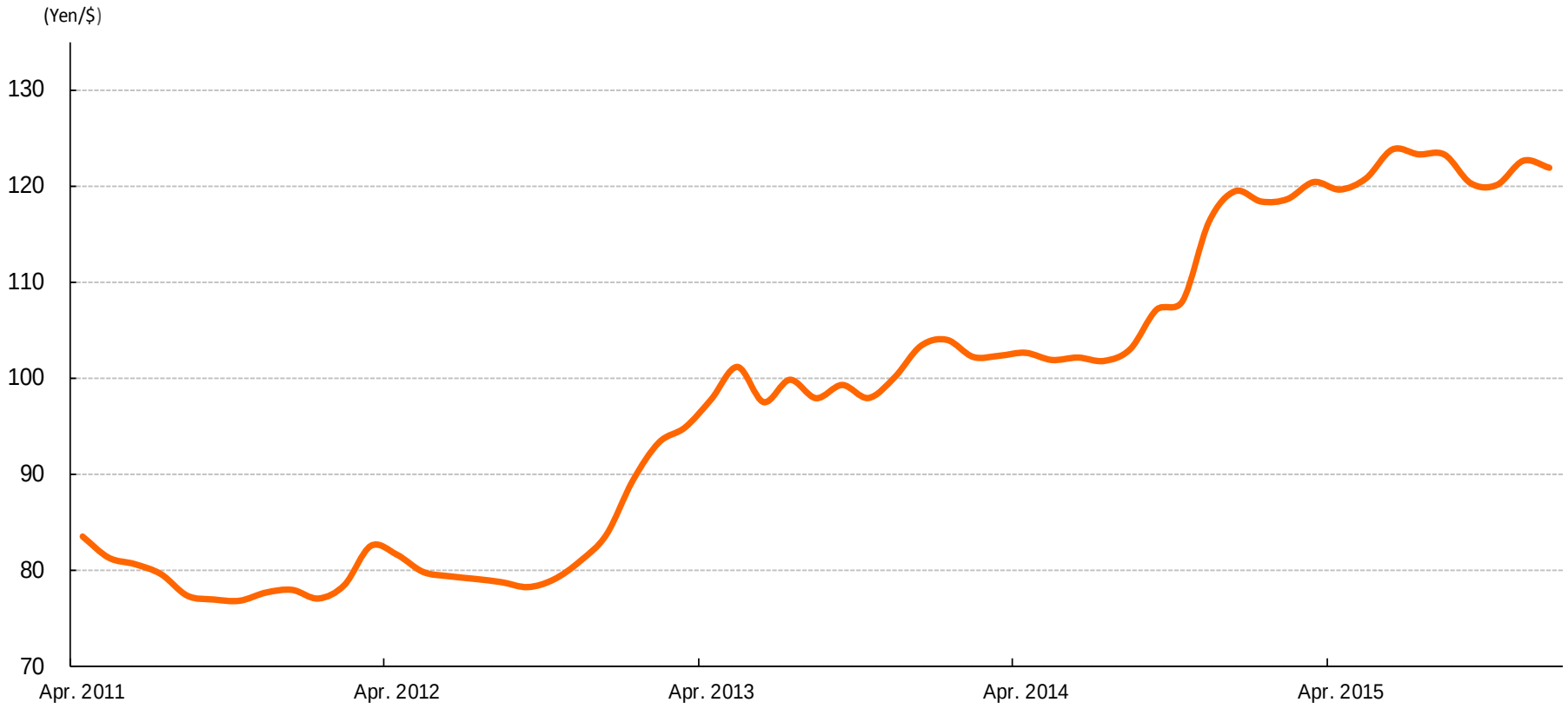
Average Price	FY2011	FY2012	FY2013	FY2014					FY2015		
				1Q	2Q	3Q	4Q	FY	1Q	2Q	3Q
Copper	385	356	322	308	317	300	264	297	275	238	222



Historical Exchange Rate

(Yen/$)

Average Price	FY2011	FY2012	FY2013	FY2014					FY2015		
				1Q	2Q	3Q	4Q	FY	1Q	2Q	3Q
Exchange Rate	79	83	100	102	104	115	119	110	121	122	122



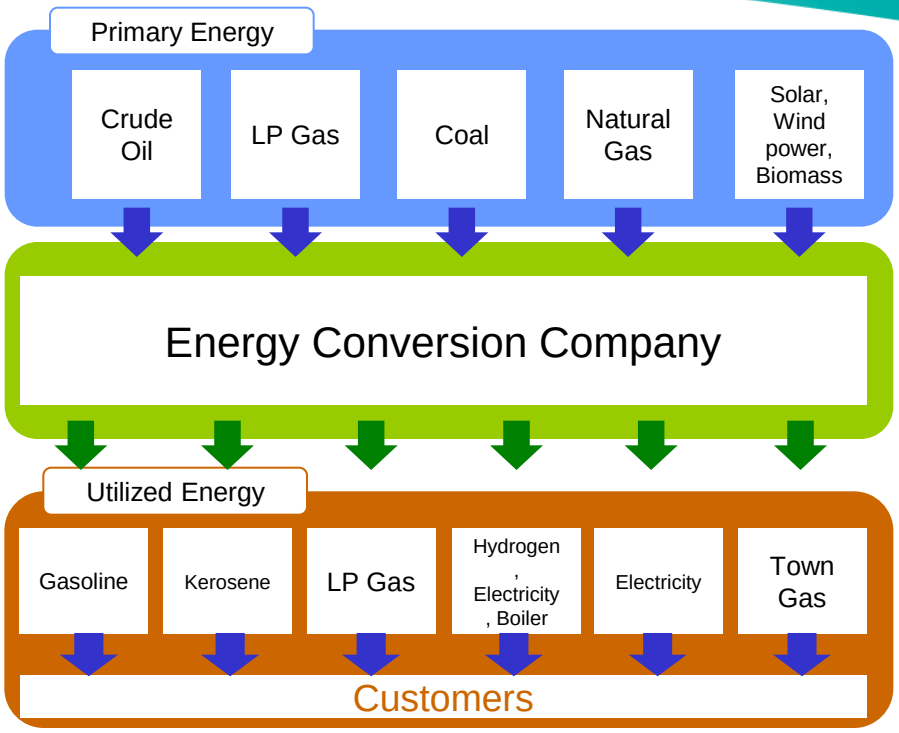
Strategies of Energy Business

Strategy and Action Plan
Petroleum Refining & Marketing/Energy Conversion

Business Environment	Domestic petroleum demand decline and competition with import products continue
Basic Strategy	**Strengthening profitability of refining & marketing**

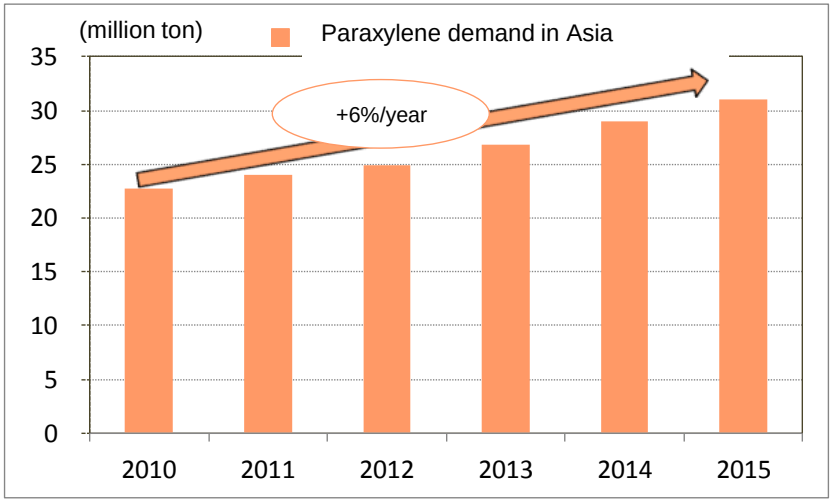
- Strengthening global competitiveness of refineries
  - Safe and Stable operation
  - Cost reduction (Energy saving, Utilizing for bottom oil)
  - Conversion to chemical factory
- Establishing strong supply chain
  - Building strong sales network
  - Improving brand value
    (Introduce new Dr. Drive brand, Card strategy, etc.)

Business Environment	Reformation of energy policy by Japanese government progress
Basic Strategy	**Enhancing business as an energy conversion company**

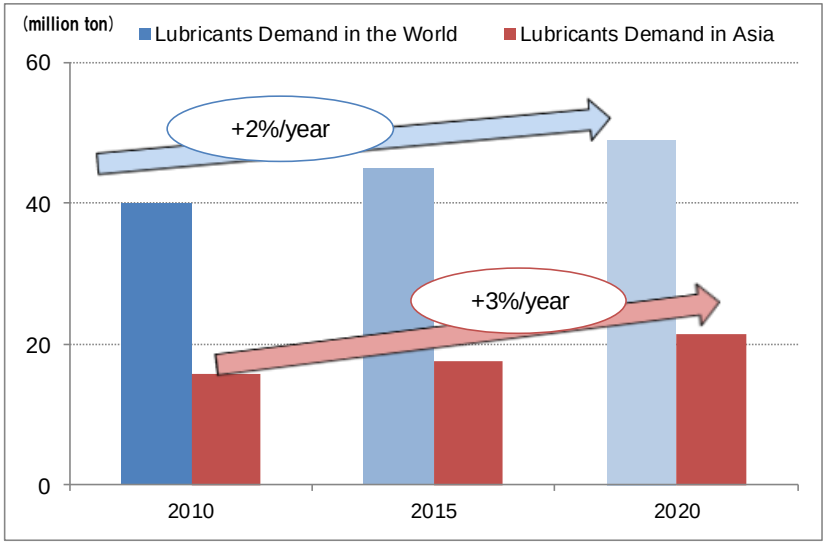


- Electricity : Business expansion corresponding to electric system reformation by Japanese government
- Gas : Construction of LNG terminal (Hachinohe & Kushiro) starting operation from Apr. 2015
  (Enhancing providing base, Acquiring new demand)
- Coal : Development of coking coal in Canada , Increasing domestic sales
- Solar, Fuel Cell : Mega solar project, fuel cell business
  (Challenge for realizing a society with independent and distributed energy system)
- Hydrogen : Bring forward demonstration test of providing infrastructure

Strategy and Action Plan
Basic Chemicals/Lubricants/Specialty & Performance Chemicals



Source : company data



Source : company data

Business Environment	Energy and materials market continues to expand centering in Asia
Basic Strategy	**Establishing presence in overseas market**

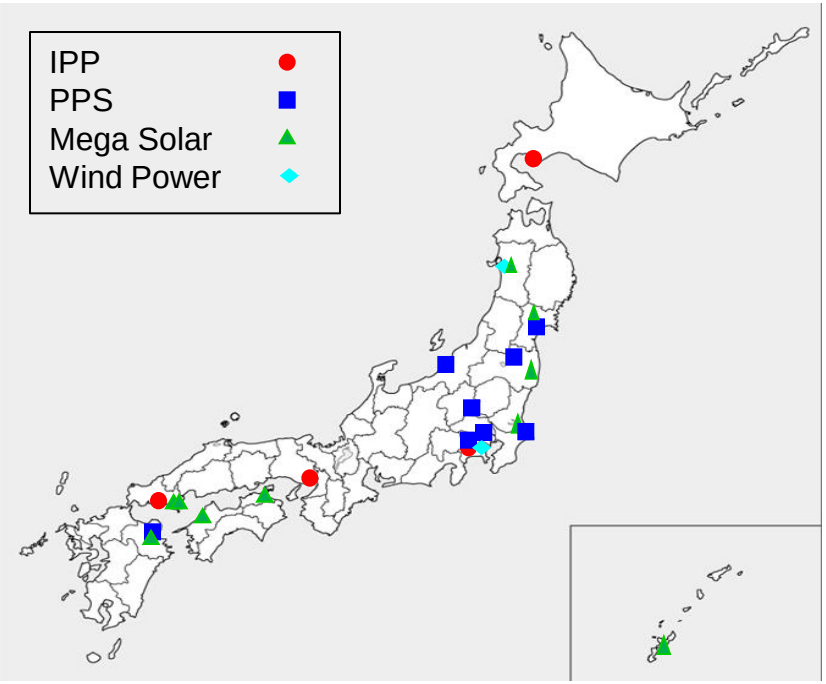
- ➢ Basic Chemicals
  - Paraxylene project in Korea (Starting operation in 2014)
    (Providing capacity of JX Group : 2,620 → 3,120 thousand ton)
  - Corresponding to business environmental change in olefins and aromatics
- ➢ Lubricants
  - Enhancing business with base oil project in Korea
  - Strengthening production and marketing network overseas

Business Environment	Demand of high value-added products increases in emerging countries
Basic Strategy	**Acquiring demand of high value-added products based on original technology**

- ➢ Specialty and Performance Chemicals
  - Expanding overseas production network
  - Increasing sales volume of cell incubation and others

Action for Energy Conversion Company (Electricity Business)

✓ Location of Electricity Business (As of Jan. 2016)



✓ Power Generating Capacity of each Business

IPP	4 stations	828 thousand kW
PPS	8 stations	764 thousand kW
Mega Solar	10 stations	28 thousand kW
Wind Power	2 stations	4 thousand kW
Total (equity basis)		1,624 thousand kW

✓ Expansion of Electricity Business

PPS

- Started receiving electricity from Kawasaki Natural Gas Power Generation Co., Ltd, joint venture with Tokyo Gas Co., Ltd.(2008)
- Decided an entry to home electricity retail business.(Apr 1,2016) Started a precedent acceptance (Jan 15,2016)
- Established the Solvent De-Asphalting equipment and the power generation facility at Kashima Refinery.(FY2015)
- Scheduled to establish the power generation facilities in the Mizushima Refinery.(FY2018)

Mega Solar

Started Operation		Startup Plan	
Sendai	Feb. 2013	Oga	Mar. 2016
Kudamatsu	Mar. 2013	Asaka	Mar. 2016
Kasumigaura	Nov. 2013	Hiroshima	Mar. 2016
Iwaki	Jul. 2014	Hitachi	Mar. 2016
2nd Kudamatsu	Sep. 2014		
Akita	Oct. 2014		
Masaki	Feb. 2015		
Takamatsu	Feb. 2015		
Uruma	Mar. 2015		
Oita	Mar. 2015		

Wind Power

- Started operation of Wind Power at the Akita Oil Terminal.(2003)
- Started operation of Ohgishima Wind Power Station.(2010)

Action for Energy Conversion Company (LNG Business)

✓ Hachinohe LNG Terminal Project

➢ Construction of LNG Terminal (Hachinohe & Kushiro) starting operation from Apr. 2015

- Taking in the demand of city gas and industrial use in the region of northern Tohoku and eastern Hokkaido.
- Supplying natural gas to general electric utility.
  (For Hachinohe Thermal Power Plant of the Tohoku Electric Power Co., Inc.)

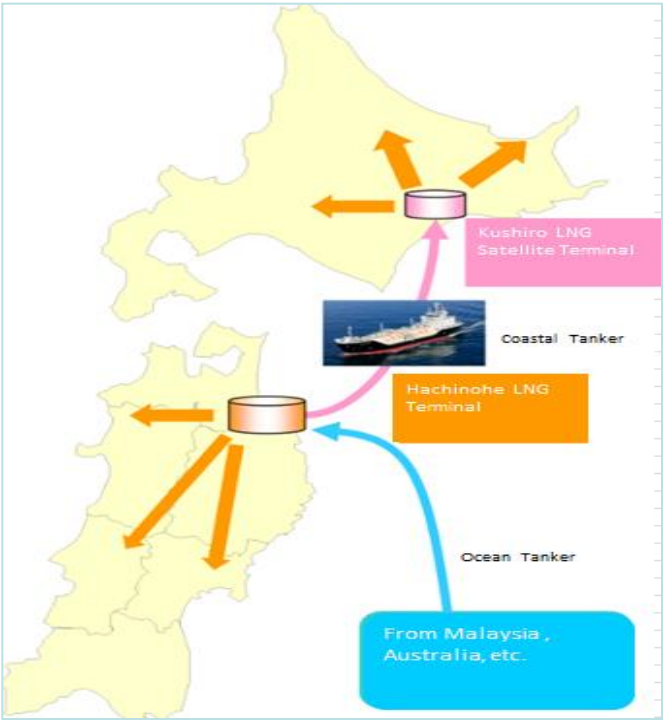
【LNG supply system of JX】

Hachinohe and Kushiro LNG terminals

	Hachinohe (Import Terminal)	Kushiro (Satellite Terminal)
Operation start	Apr. 2015	
Tank capacity (thousand KL)	140×2 tanks	10×1 tank

Mizushima LNG Import Terminal

	Tank No.1	Tank No.2
Operation start	Apr. 2006	Apr. 2011
Tank capacity (thousand KL)	160	160
Ownership	JX Nippon Oil & Energy 50% The Chugoku Electric Power Co.,Inc. 50%	



Action for Energy Conversion Company (Coal Business)

✓ Our Coal business

1. Main Upstream Businesses

- Acquired the interest of Bulga mine in Australia, through an investment to Oakbridge joint venture.(Sep.1990)
- Started production and sales of Bulga coal. (Mar. 1991)
- Acquired of the interest and dealership of Sukunka /Suska coal deposits, through an investment to Xstrata Coal British Columbia, and started coking coal joint venture with Xstrata Coal. (Mar. 2012)
- Started to develop new mining areas in the Bulga Coal Mine in Australia.(Dec. 2014)

2. Sales

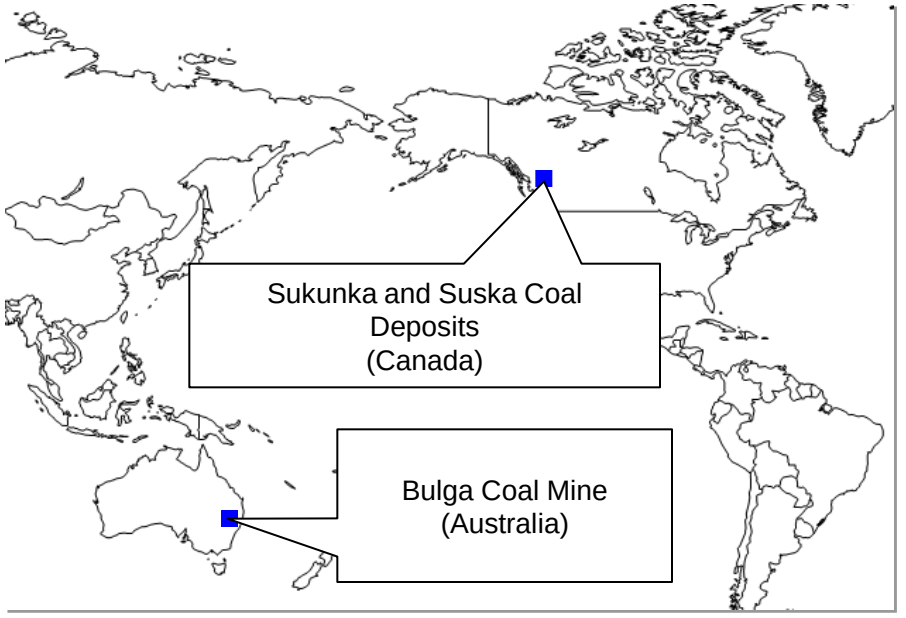
- Mainly supplying Bulga coal to customers. (Approx. 9 million tons/year)

3. Coal Transshipment Station

- Coal Transshipment Station was constructed on the site of former Kudamatsu Refinery, and started its operation.(May 2001)

✓ Our Interest of Coal Mine/Deposits

	Bulga Coal Mine	Sukunka and Suska Coal Deposits
Location	New South Wales, Australia	British Columbia, Canada
Interest	13.3%	25.0%
Production capacity	Approx. 11million tons/year	Approx. 9.5million tons/year (scheduled)



Action for Energy Conversion Company (Hydrogen Business)

✓ Construction of Hydrogen supply system

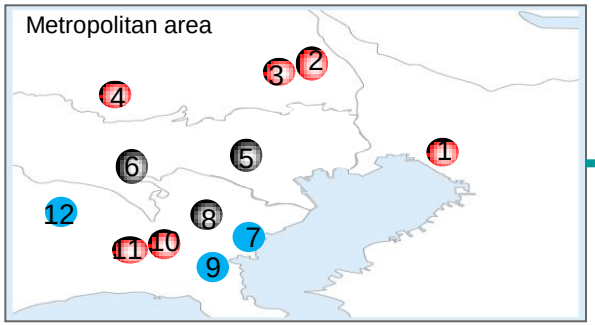
- With hydrogen and fuel cell strategy road map gathered by METI, it announced the security of around 100 places of hydrogen supply places around four major urban areas before 2015.
- JX group will try to construct around 40 places.

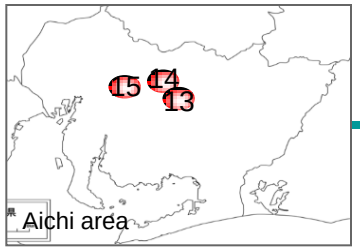
✓ Construction situation of hydrogen station of JX group (As of Jan. 2016, 16 places .)

【Metropolitan area】
1 Dr. Drive Self Takeishi inter
2 Dr. Drive Self Kasukabe-Chuou
3 Dr. Drive Self Owada
4 Dr. Drive Self Sayama-Negishi
5 Suginamiku, Tokyo
6 Takakura, Hachioji city
7 Kawasakiku, Kawasaki city
8 Asahiku, Yokohama city
9 Osanbashi, Yokohama city
10 Dr.Drive Self Kamiiida
11 Dr.Drive Self Ebina-Chuou
12 Chuouku, Sagamihara city

【Aichi area】
13 Dr.Drive Self Okazaki-Hane
14 Dr.Drive Self Miyoshigaoka
15 Dr.Drive Self Kaminokura

【Kitakyushu area】
16 Dr.Drive Self Yahata-Higashida





● : Built-in type

● : Independent type

● : Portable type

Enhance Overseas Businesses (Paraxylene)

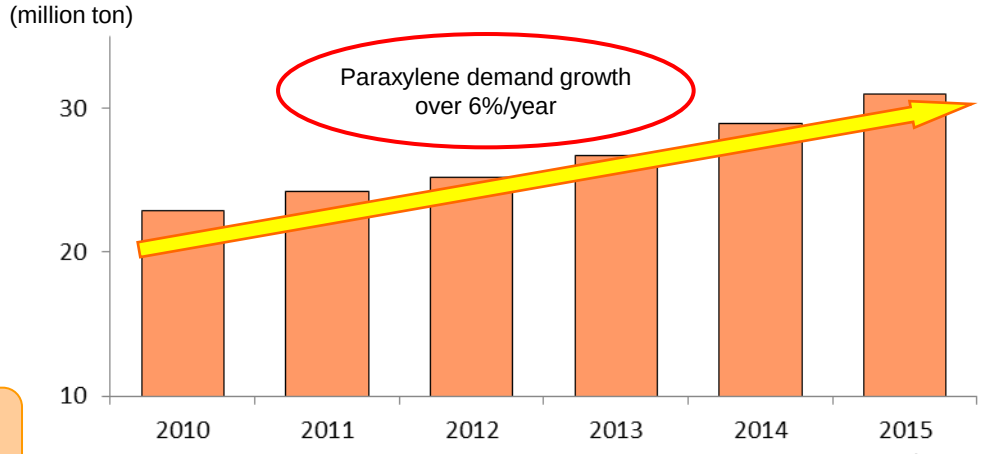
Main use of Paraxylene

Polyester fiber

PET bottles

Outlook for Paraxylene Demand in Asia

Group's current supply capacity of Paraxylene
3,120 thousand tons /year = No.1 in Asia



Source: Company data

Outline of a paraxylene joint venture project with SK Group of South Korea

Location : Ulsan, Korea

Capacity : 1,000 thousand tons / year

One of the world's largest capacities

Production Start : June 2014

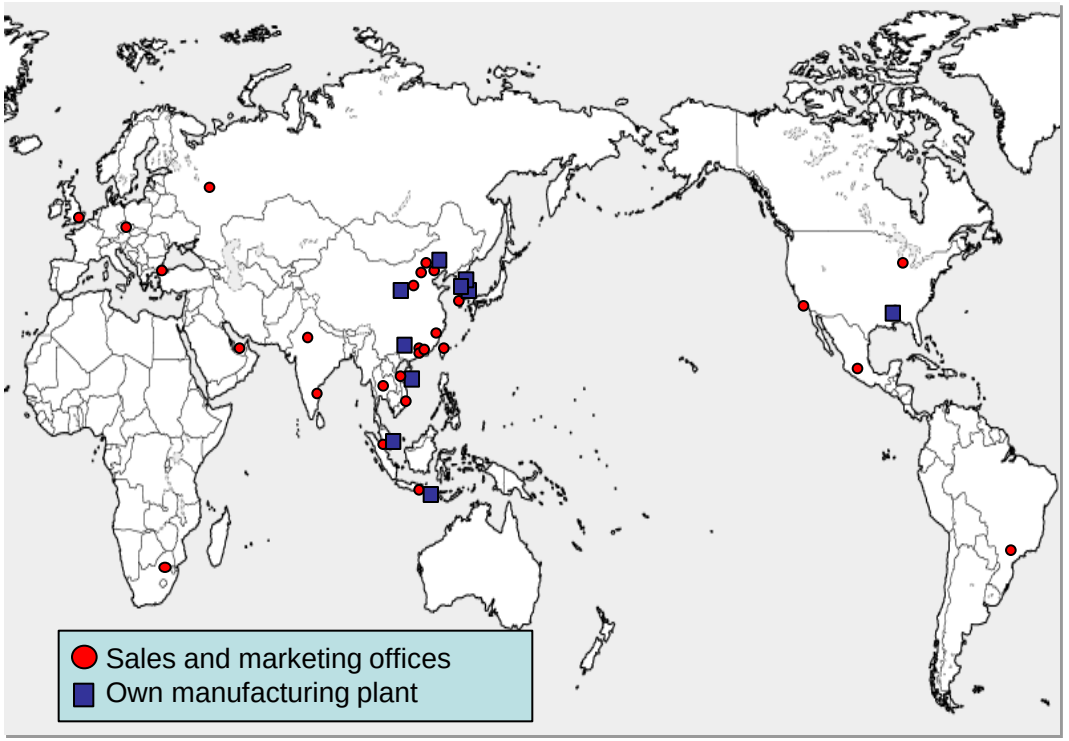
Investment : approx. 80 billions of yen

Ownership :

JX Nippon Oil & Energy	50% -1 share
SK Global Chemical	50% +1 share

Enhance Overseas Businesses (Lubricants)

✓ Location of Overseas Lubricants Business (As of Jan. 2016)



- Expanding overseas business, especially in Asia.

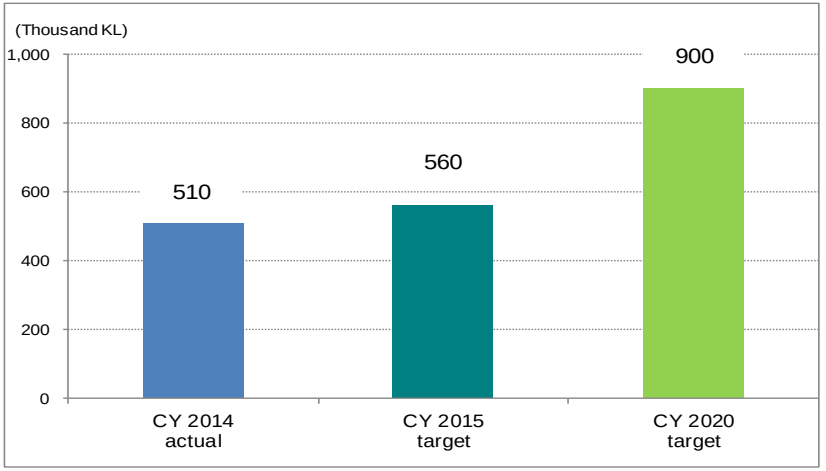
Sales and marketing offices	27
Manufacturing plant	48

(Own manufacturing plant:10, Contractors:38)

✓ Expansion of Overseas Lubricants Business

- Established a lubricants marketing company in Dubai. (Jul. 2011)
- Lubricants manufacturing plant started its operation in Indonesia. (Apr. 2012)
- Started joint venture business for lubricants base oil with SK Group of South Korea. (Oct. 2012)
- Lubricants manufacturing plant started its operation in Vietnam. (Feb. 2014)
- Established a marketing office in Johannesburg. (Apr. 2014)
- Established a lubricants marketing company in India. (Aug. 2014)
- Established a lubricants marketing company in Mexico. (Jan. 2015)

✓ Medium-Term Target of Overseas Lubricants Sales



Strategies of Oil and Natural Gas E&P Business

Strategy and Action Plan
Expanding Reserves and Production Volume Mainly through Exploration

Business Environment	• Prices of natural resources fell drastically in 2014, and are still very unstable. • Demand of natural resources remains temporarily stagnant but will steadily increase in mid-and-long term.
	• Survival through cost cutting and reduction of capex. • Development technologies become more challenging.

Basic Strategy 1: Expanding reserves and production volume mainly through exploration

Toward production volume of 200 thousand BD

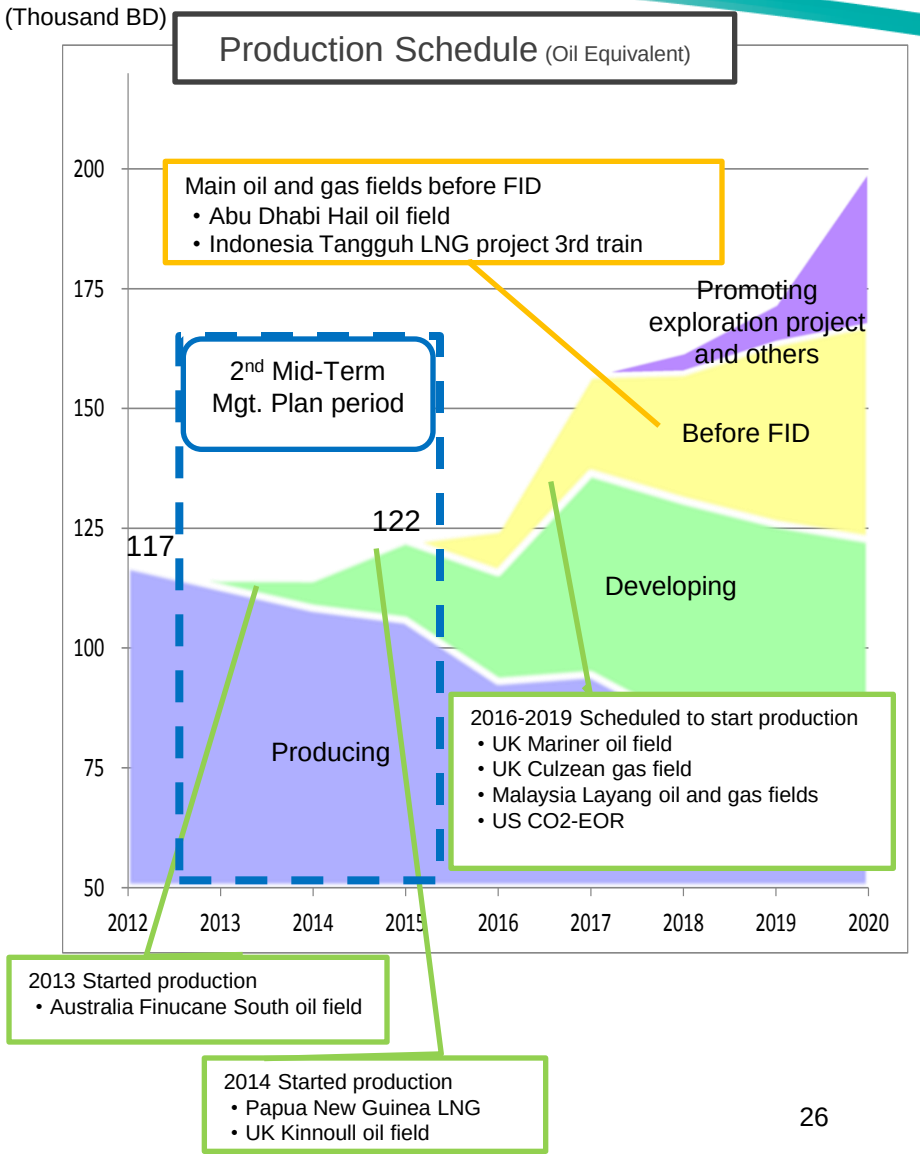
➢ Shifting developing projects to production and projects before FID to developing

(Started production)
- Papua New Guinea LNG project

(On developing)
- UK Mariner oil field
- UK Culzean gas field

(Before FID)
- Indonesia Tangguh LNG project 3rd train

➢ Promoting large exploration operator projects (Investing 90billion yen in 3years)
- Malaysia : Deepwater Block R offshore Sabah
- Qatar : Block A



Strategy and Action Plan
Focusing on Core Business Area and Technology/Restructuring Business Portfolio

Basic Strategy 2 — **Establishing superiority by focusing core business area and technology**

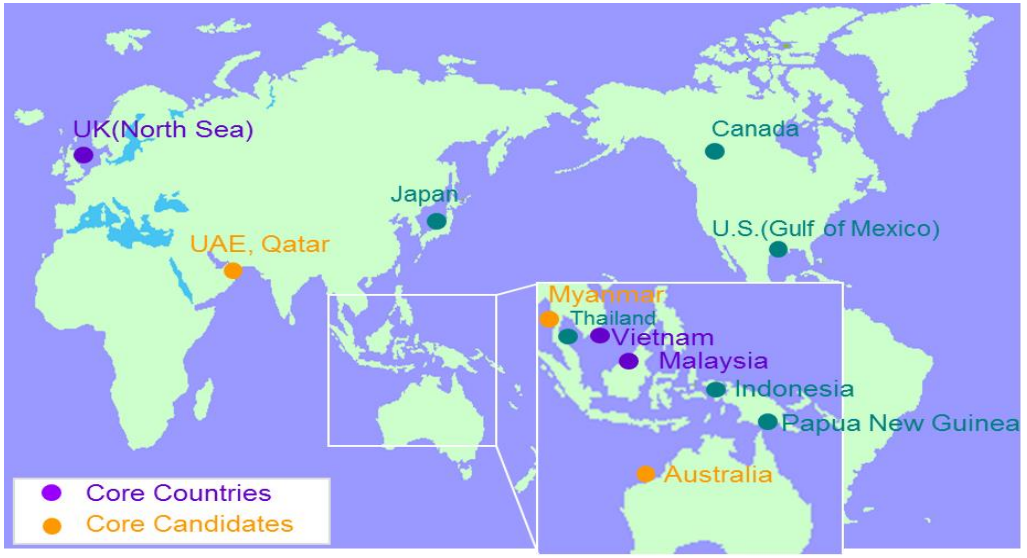
Aiming to secure independence and increase access to business chance by allocating management resources to core and core candidate countries and accumulating technology through operator projects

Core Area

- Core countries: Malaysia, Vietnam, UK
  - Continuing exploration, development and resource acquisition utilizing knowledge and relationship with national petroleum companies etc.
- Core candidates : UAE/Qatar, Myanmar, Australia
  - To be developed as core countries acquiring business chance aiming for operatorship and strengthening business base

Core Technology

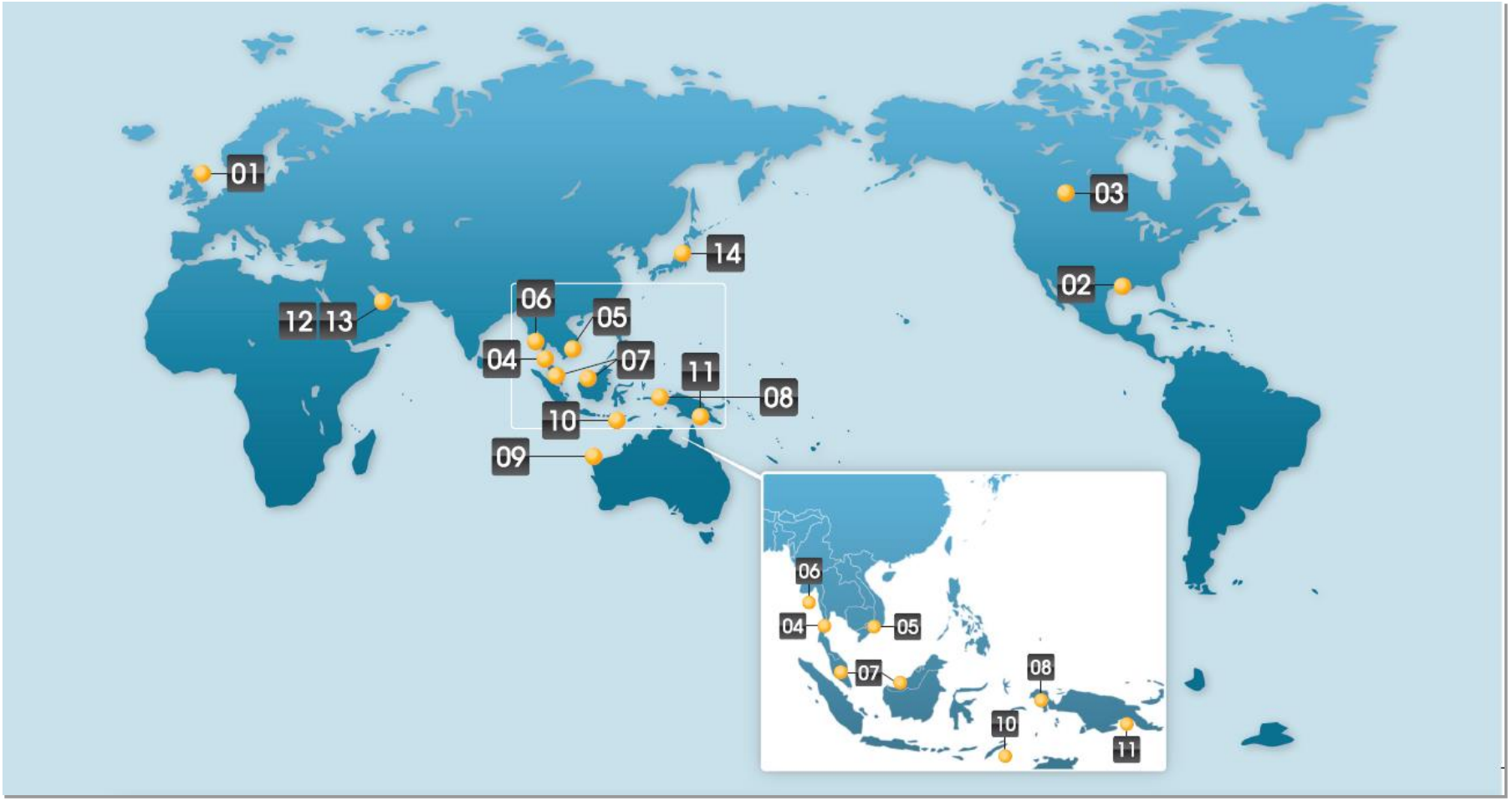
- Deepwater
  - Malaysia Deepwater Block R offshore Sabah
  - UK West of Shetland offshore
- Enhanced Oil Recovery
  - Vietnam Rang Dong Oil Field HCG-EOR
  - US CO2-EOR
- Tight Oil, Tight Gas, Heavy Oil
  - UK Mariner oil field



Basic Strategy 3 — **Restructuring business portfolio responding to business environmental change**

Rearranging asset portfolio timely

Business Area



Business Activities

	▼ Project Company	In Production ●	Under Development ●	Under Exploration ●
01 The North Sea	JX Nippon Exploration and Production (U.K.) Ltd.	●	●	●
02 The U.S. Gulf of Mexico	JX Nippon Oil Exploration (U.S.A.) Ltd.	●		
	JX Nippon Oil Exploration (EOR) Ltd. / Petra Nova Parish Holdings LLC		●	
03 Canada	Japan Canada Oil Company / Mocal Energy	●		
04 Thailand	JX Nippon Oil & Gas Exploration Corp.			●
05 Vietnam	Japan Vietnam Petroleum Co., Ltd.	●	●	●
	JX Nippon Oil & Gas Exploration Corp.			●
06 Myanmar	Nippon Oil Exploration (Myanmar) Ltd.	●	●	●
07 Malaysia	JX Nippon Oil & Gas Exploration (Malaysia) Ltd.	●	●	●
	JX Nippon Oil & Gas Exploration (Sarawak) Ltd.	●		
	JX Nippon Oil & Gas Exploration (Deepwater Sabah) Ltd.			●
	JX Nippon Oil & Gas Exploration (Offshore Malaysia) Sdn. Bhd.			●
08 Indonesia	Nippon Oil Exploration (Berau) Ltd.	●		●
09 Australia	JX Nippon Oil & Gas Exploration (Australia) Pty Ltd.	●		●
10 JPDA ＊	Japan Energy E&P JPDA Pty Ltd.			●
11 Papua New Guinea	Merlin Petroleum Company / Southern Highlands Petroleum Co., Ltd.	●	●	●
	Nippon Oil Exploration (Niugini) Ltd. / Murray Petroleum Co., Ltd.			●
	Nippon Papua New Guinea LNG LLC	●		
12 13 UAE・Qatar	Abu Dhabi Oil Co., Ltd.	●	●	
	United Petroleum Development Co., Ltd.	●		
	JX Nippon Oil & Gas Exploration (Qatar) Ltd.			●
14 Japan	JX Nippon Oil & Gas Exploration Corp.	●	●	●

＊ Joint Petroleum Development Area between Australia and East Timor

Outline of Oil and Natural Gas E&P Projects

	Project Name/Company	Sales Volume(Jan.-Sep. 2015) (1,000BOED)			Reserves(million BOE) *1 *2			Reference pages
		* 1	Oil	Gas	As of the end of 2014	As of the end of 2013	As of the end of 2012	
1	〔North Sea, U.K.〕 JX Nippon Exploration and Production (U.K). Limited	12	10	2	193	184	126	58 ~ 60
2	〔Gulf of Mexico(U.S.A.)〕 JX Nippon Oil Exploration U.S.A. Limited	3	2	1	17	16	23	62 ~ 63
3	〔Canada〕 Japan Canada Oil Company Limited	12	12	0	283	260	253	64
5	〔Vietnam and other〕 Japan Vietnam Petroleum Company, Limited, other	6	6	0				66 ~ 67
6	〔Myanmar〕 Nippon Oil Exploration (Myanmar) Limited	8	1	7				68
7	〔Malaysia〕 JX Nippon Oil & Gas Exploration (Malaysia) Limited JX Nippon Oil & Gas Exploration (Sarawak) Limited	21 11	2 1	19 10				69 ~ 72
8	〔Indonesia〕 Nippon Oil Exploration (Berau) Limited	17	1	16	<Sub Total> 213	<Sub Total> 196	<Sub Total> 233	73
9	〔Australia and other〕 JX Nippon Oil & Gas Exploration (Australia) Pty Ltd., other	1	1	0				74 ~ 76
11	〔Papua New Guinea〕 Merlin・ Southern Highlands Petroleum Co., Ltd.	15	6	9	<Sub Total> 92	<Sub Total> 95	<Sub Total> 99	77 ~ 78
12,13	〔United Arab Emirates, Qatar and others〕 Abudhabi Oil Co., Ltd., United Petroleum Development Co., Ltd. and others	12	11	1	48	57	66	79 ~ 80
Total		118	53	65	846	808	800	

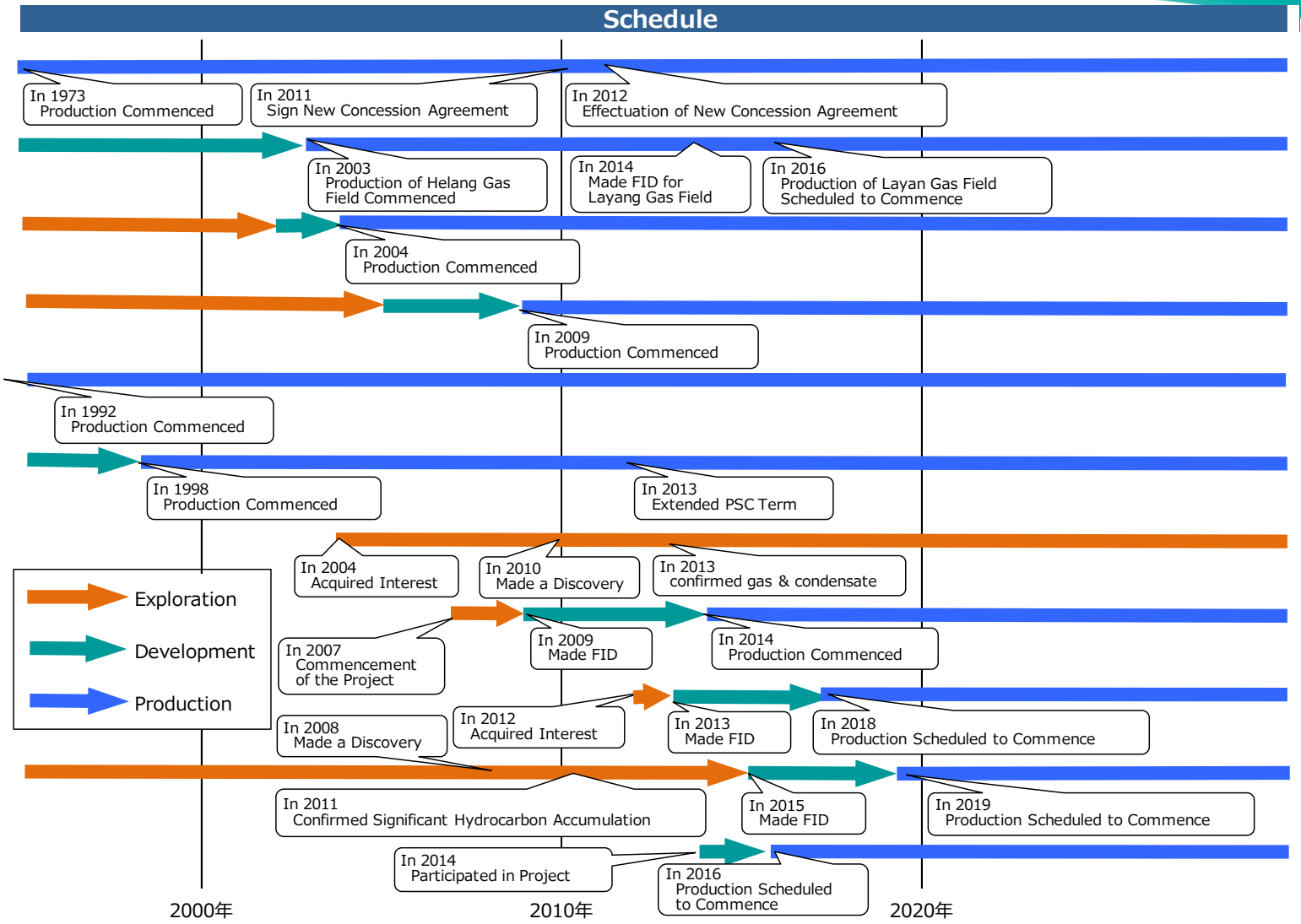
*1 Project company basis.
*2 Proved reserves and probable reserves , including reserves from projects currently under development.
(Please refer P81 about our reserve standard.)

Maintain and Expand Production Volume over the Medium/Long Term

Latest Results

	Country(Block)	Type	Acquisition of Working Interest	Discovery of oil & gas strata	Final Investment Decision	Renewal of Contract	Commencement of Production
May. 2013	Australia (Finucane South Oil Field)	Crude Oil					●
Aug. 2013	Australia(WA-320-P) (WA-155-P2)	Natural Gas	●				
Sep. 2013	Malaysia(Deepwater 2F)	Natural Gas	●			2020～2025	
Nov. 2013	Vietnam(15-2)	Crude Oil			Production scheduled to Commence in 2016	●	
Dec. 2013	Malaysia(Deepwater 3F)	Crude Oil	●				
May. 2014	Malaysia (Layang Oil/Gas Field)	Oil / Gas	Perticipation in the Project		●		
Apr. 2014	PNG LNG Project	Natural Gas					●
Jul. 2014	USA (CO2-EOR)	Crude Oil	●				
Aug. 2014	Australia(WA-435-P)	Oil / Gas		●			
Aug. 2014	Vietnam(05-1b/c)	Oil / Gas		●			
Dec. 2014	UK(Acquisition of Oil Fields)	Oil / Gas	●				
Dec. 2014	UK(Kinnoull Oil Field)	Oil / Gas					●
Mar. 2015	UK (22/16、17b)	Crude Oil		●			
Apr. 2015	Malaysia(Deepwater R)	Crude Oil		●	Production scheduled to Commence in 2019		
Aug. 2015	Brazil(FZA-M-320)	Crude Oil	●				
Aug. 2015	UK(Culzean Gas Field)	Natural Gas			●		

Production Schedule of Principal E&P Projects



Strategies of Metals Business

Strategy and Action Plan　Resource Development

Business Environment	• Copper demand increases centered on Asia. • Copper price stays at high level in mid-and-long term
Basic Strategy	**Establishing highly profitable structure by enhancing copper mine interest**

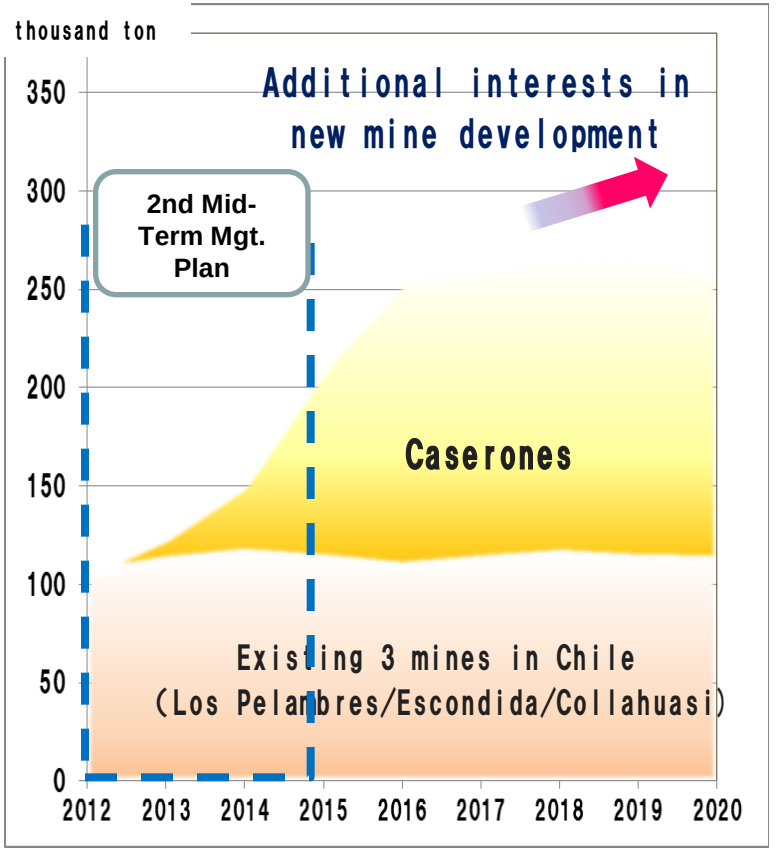
➢ Increasing copper mine interest
- Caserones : Jan. 2014 - Start production of copper concentrate
- Reconsidering Quechua (Peru) development
- Promoting exploring Frontera(Chile)

	2006	07	08	09	10	11	12	13	14	15	16
Caserones	Acquired interest		Started FS		FID				Start production		Untill 2040
Quechua			Acquired interest		Started FS		Finished FS		(Considering development)		
Frontera							Acquired interest		(Additional exploring)		

Business Environment	Capital intensification and oligopolization of resource developers proceeds more challenging technology and funds for mine development
Basic Strategy	**Acquiring mining interest utilizing original technology**

➢ Developing next-generation smelting technology
- Nikko Chloride Process (N-Chlo Process): Continuing study for commercialization of achievement at pilot plant in Australia
- Bio mining : Commenced commercial application of the technology at CODELCO's Radomiro Tomic copper mine in Chile (Feb. 2015)

Copper mine interest



Strategy and Action Plan
Smelting & Refining/Electronic Materials/Recycling & Environmental Services

Smelting & Refining

Business Environment	Drastic improvement of TC/RC is hardly expected though mine development proceeds.
Basic Strategy	**Establishing business structure that has world top-class cost competitiveness**

- Safe and stable operation
- Improving smelting margin
  - Improving production efficiency using copper concentrate from Caserones.
  - Using high margin materials.
  - Starting 2 operation of 2nd copper concentrate and sulfuric acid carriers.

Electronic Materials

Business Environment	Electronic materials demand increases in cutting-edge IT, automobile, medical fields etc.
Basic Strategy	**Securing world's top share in each product market**

- Realizing early monetization of integrated connector production business (2013.4, Kakegawa Works started operation) and cathode materials business for lithium-ion batteries
- Improving profitability by developing new fields and materials
  - Ultra-thin electro-deposited copper foil, High-functional precision rolled products, Sputtering target for OELD, Sputtering targets for next generation LSIs, Materials for ray sensor

Recycling & Environmental Services

Business Environment	Demand for related materials and resource recycling expands in line with growing concerns for eco social needs
Basic Strategy	**Building international resource recycling business with environmental-friendly zero emission system**

- Enhancing collecting ability of recycled materials overseas : Development to US market
- Enhancing new business : Recycling lithium-ion batteries. Detoxication of materials containing low-concentrated PCB
- Consolidating production site metal by metal and cost reduction

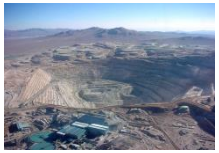
Copper Business

Overseas mines

Caserones (Chile) 52% *1

Los Pelambres (Chile) 15% *1

Escondida (Chile) 3% *1



Collahuasi (Chile) 3.6% *1

Investment

Gain from investment

Stable procurement

Alliance

JX Holdings

JX Nippon Mining & Metals

67.62% *1

39.9% *1

Pan Pacific Copper (Japan) 650KT

450KT
Saganoseki Smelter & Refinery
Hitachi Works

200KT *2
Tamano Smelter, Hibi Kyodo Smelting

LS-Nikko Copper (Korea) 680KT

680KT
Onsan Plant

32.38%

5.0%

Mitsui Mining & Smelting

*1. Shares indirectly owned by JX Nippon Mining & Metals
*2. Allocated to PPC. Total Capacity is 290KT.

Overseas Copper Mine Development ①

Caserones Copper Mine (Chile)

Acquisition date May 2006

Acquisition price $137 million

Initial investment $ 4.20 billion

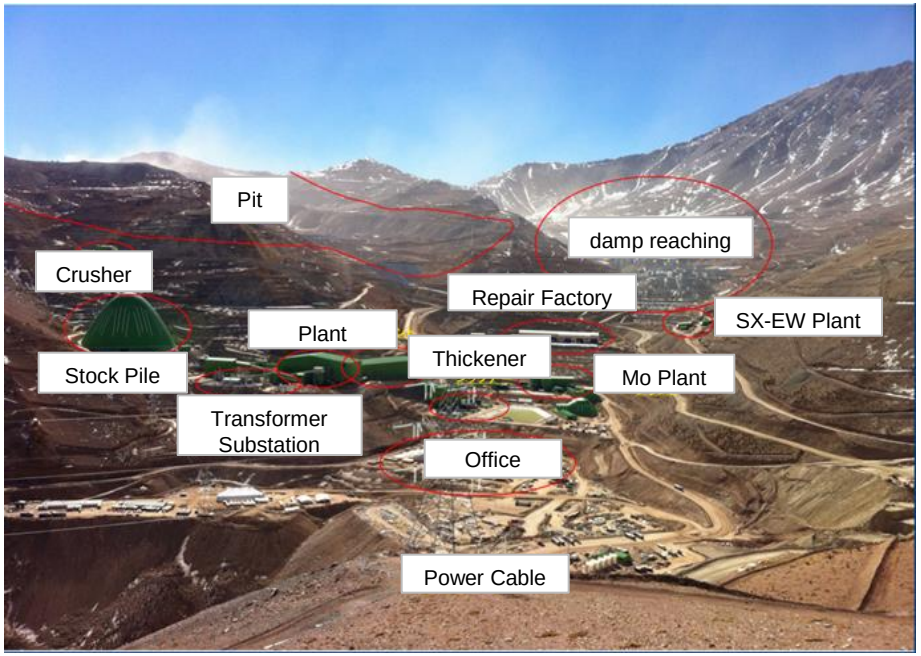
In July 2011, project finance($1.1billon) and long-term loan($0.3billion) were concluded.

Ownership (As of Dec. 2015)

Pan Pacific Copper（PPC）* 77.37%

- Jointly established by JX Nippon Mining & Metals (67.62%) and Mitsui Mining & Smelting (32.38%)

Mitsui & Co., Ltd. 22.63%



Mine life From 2013 to 2040 (28 years)

Total production (28years)

Copper : 3,550kt From Copper Concentrate 3,140kt

From SX-EW Process 410kt

Molybdenum : 87kt

Production plan

In Mar. 2013, started to SX-EW Copper Cathode Production

In May. 2014, started to Copper Concentrate Production

		first 10 years	average (28years)	total (28years)
Copper	Copper Concentrate	150 kt/year	110 kt/year	3140 kt
	SX-EW Process	30 kt/year	10 kt/year	410 kt
	total	180 kt/year	120 kt/year	3550 kt
Molybdenum		3 kt/year	3 kt/year	87 kt

SAG(Semi-autogenous Grinding)Mill

Flotation Plant
(Facility of recovering copper concentrate from crude ore)

Overseas Copper Mine Development ②

Frontera Area（Chile/Argentina）

Ownership

NGEx Resources Inc. (Canada)： 60%

Pan Pacific Copper (PPC) ： 40%

*PPC is Jointly established by JX Nippon Mining(67.62%) and Mitsui Mining & Smelting(32.38%)

September 2012, PPC acquired 40% exploration rights from JOGMEC (Japan Oil, Gas and Metals National Corporation)

Main deposits

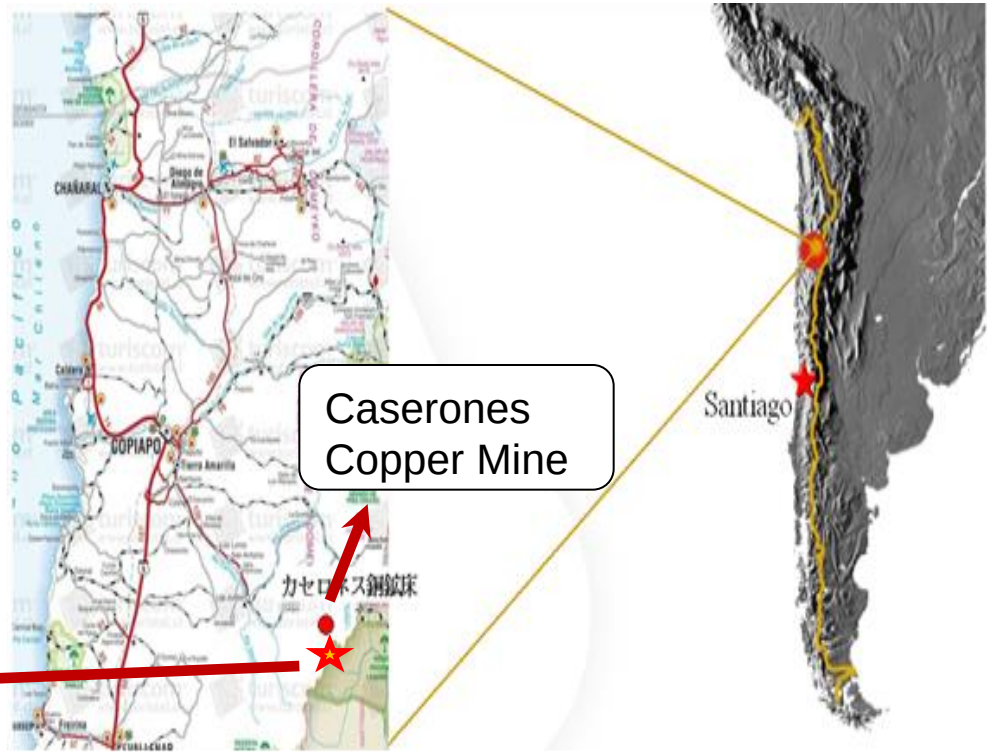
Los Helados（Chile, 20km south of the Caserones Copper Mine ）

∗Filo del Sol（Argentina）October 2014, PPC agreed to transfer all of its exploration rights to NGEx

Exploration results for Los Helados

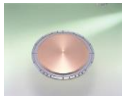
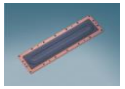
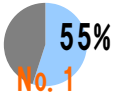
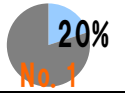
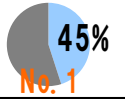
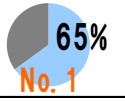
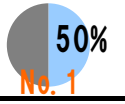
Existence of copper-gold deposit had been confirmed at the time of PPC's acquisition in 2012 through exploratory drilling since 2004.

Exploratory works continued after 2012 and preliminary engineering study and economical evaluation have been completed.



Frontera Area Dimension：24,000ha
Altitude：4,400-4,900m

Electronic Materials

Main products	Global market share	Primary applications	End-use applications				
			PCs	Mobile phones / Smart phones	Digital, Avs	Telecom infra/ Data canter	Auto mobiles
 Treated rolled copper foil		Flexible printed circuit boards	○	◎	◎		○
 Semiconductor targets		CPUs, memory chips, etc.	◎	◎	◎	○	○
 ITO targets for FPDs *		Transparent electrodes	◎	◎	◎		○
 HD media targets		HDD (Hard disk drives), etc.	◎		○	○	
 Phosphor bronze		Connectors	○	◎	○		○
 Corson alloy (C7025)		Lead frames, Connectors	◎	○	○	○	○
 Titanium copper alloy		High-class connectors, etc.	○	◎	○		○
 In-P compound semiconductors		Optical comunication devices High-speed IC			○	◎	○

* Flat Panel Displays

Electronic Materials (JX Metals Precision Technology Co., Ltd. Kakegawa Works)

✓ Expansion of Automotive Related Business

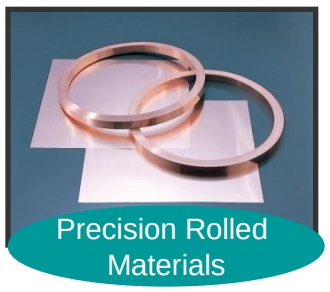
- Eco-friendly car market which is applying full of environmental technology has a high potential of growth in near future.
- Demand for connectors used in electric components of eco- friendly car is expected to expand further.

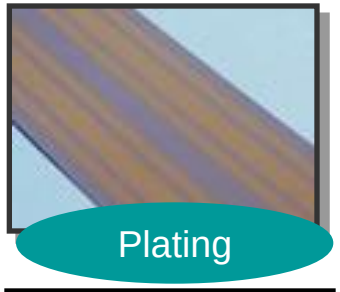
✓ OEM Construction of Integrated Plant of Connector (Kakegawa Works)

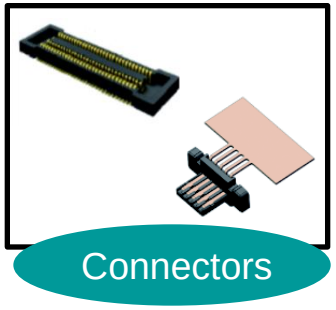
- Decided to construct a new plant in Kakegawa with integrated production system (press, plating and assembly) for connector (Feb. 2011).
- Started operation (Apr. 2013) .

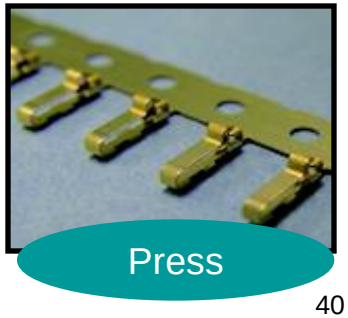
✓ Integrated Production System of Connector and Precision Materials

Use•Product \ Process	Press	Plating	Assembly
Connector for Automobile etc.	Kakegawa Works		
Connector for IT etc.	Nasu Works	Esashi Works Tatebayashi Works	Nasu Works

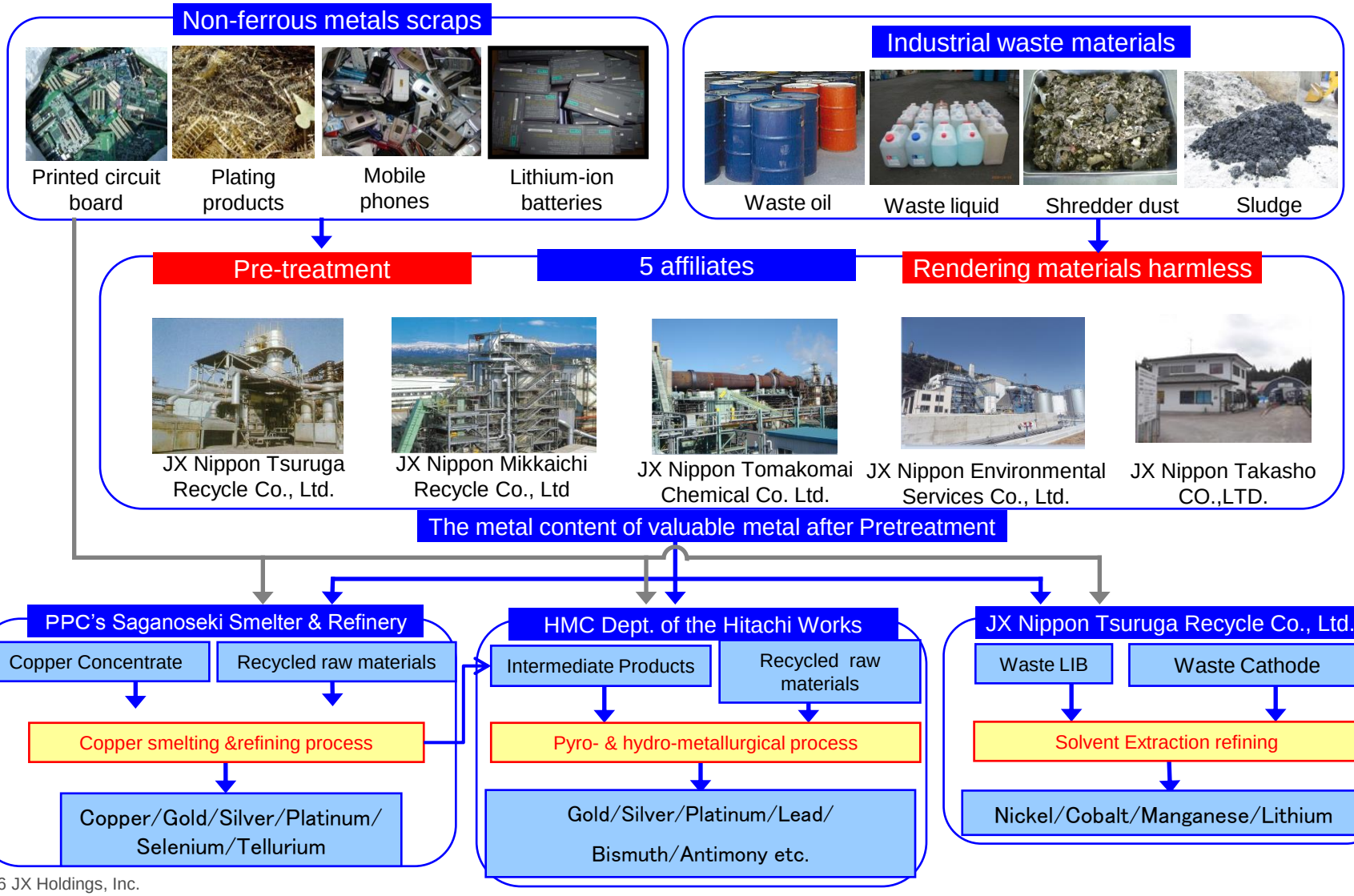






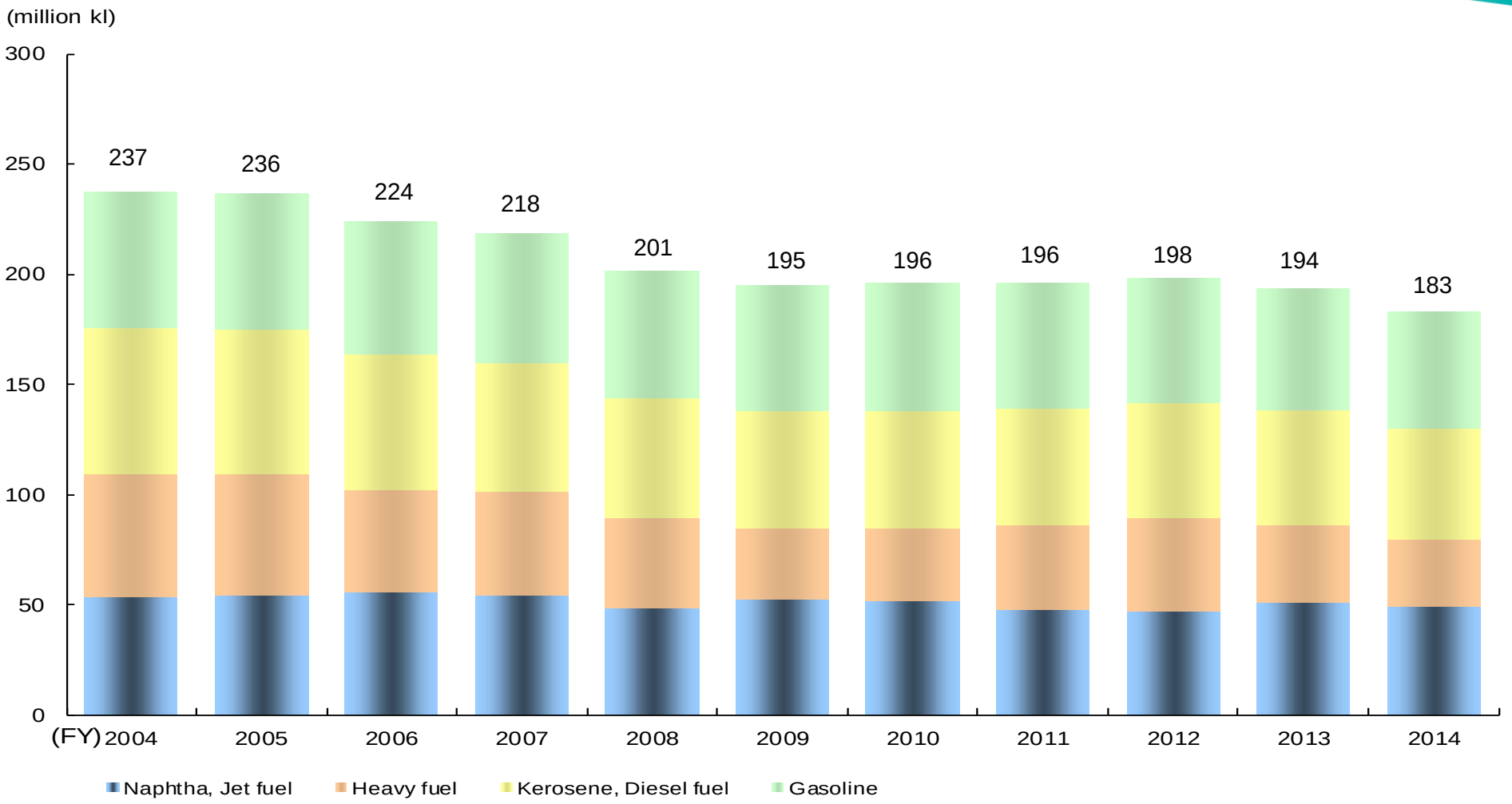


Recycling and Environmental Services



Business Environment and Data
- Energy Business -

Demand for Petroleum Products (Japan)



Note: Excluding Crude Oil for electric power plants.

Source: Petroleum Association of Japan and Company data

Capacity Reduction Plan, Integration Synergies, Enhanced Efficiency of Refineries

✓ Capacity Reduction Plan

(JX)
Dec.2008. Dec. 2015.*
1,891 ⇒ 1,426 thousand BD

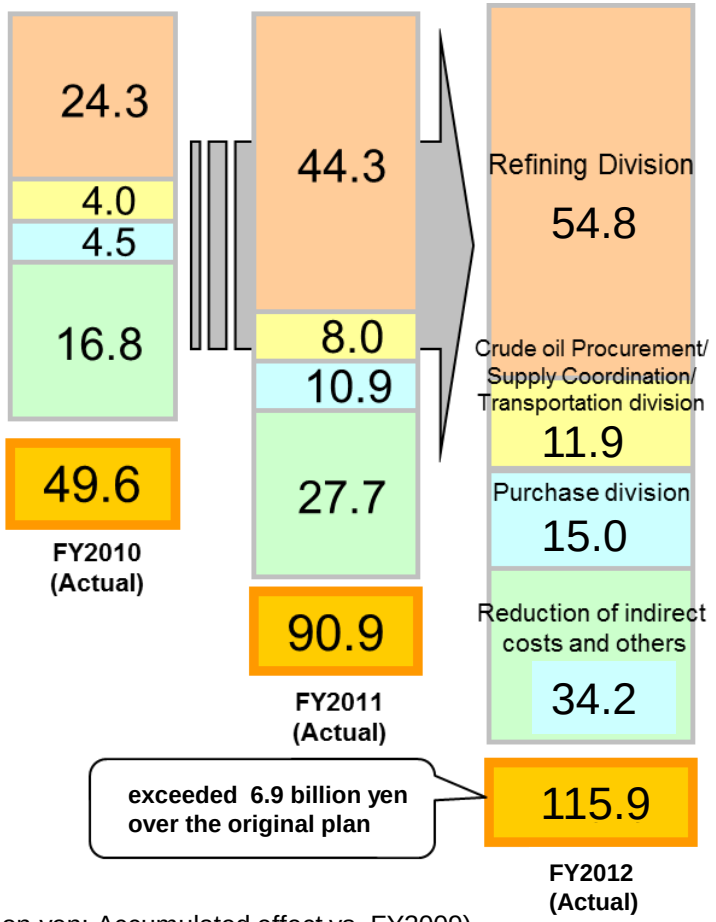
(Japan)
Dec.2008. Nov. 2015.*
4,934 ⇒ 3,917 thousand BD

Refinery	Due Date	Reduction Capacity		Completion
Toyama	March, 2009	(60)	thousand B/D	✓
Kashima	May, 2010	(21)		✓
Oita	May, 2010	(24)		✓
Mizushima	June, 2010	(110)		✓
Negishi	October, 2010	(70)		✓
Muroran	March, 2014	(180)		✓
Subtotal		(465)		
Osaka	October, 2010	(115)	Convert to exportation refinery	✓
Total		(580)		

Corresponded to Sophistication of Energy Supply Structure Act

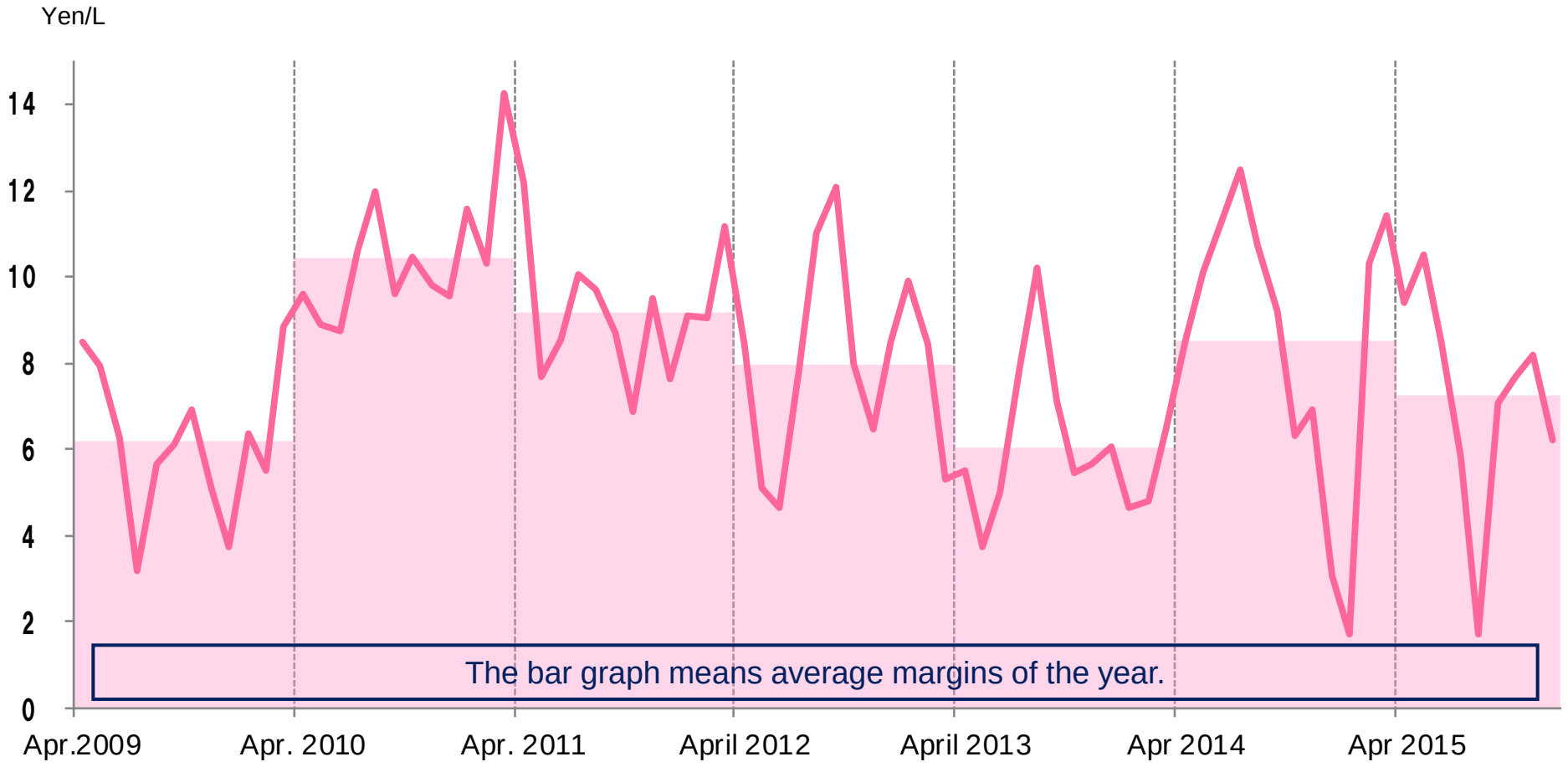
* Includes Osaka International Refining Company, Limited, and the Mizushima refinery and Kashima refinery condensate splitters.

✓ Integration Synergies and Enhanced Efficiency of Refineries



(billion yen; Accumulated effect vs. FY2009)

Margins* of Gasoline, Kerosene, Diesel Fuel and Fuel Oil A



* Margin = Spot Price – All Japan Crude Oil CIF (including petroleum tax and interest)

JX Group's Market Share and Demand in Japan, Historical CDU[*1] Utilization Rate

Domestic Market Share

	FY2014 3Q(Apr.-Dec.) (%)	FY2014 (%)	FY2015 3Q(Apr.-Dec.) (%)
a) Gasoline	33.4	33.4	33.5
b) Kerosene	36.7	37.2	40.2
c) Diesel Fuel	36.3	36.4	36.7
d) Fuel Oil A	39.3	39.8	41.5
a+b+c+d	35.2	35.5	35.9
Total Domestic Fuel *2	34.6	35.0	35.3

Domestic Demand

	FY2014 3Q(Apr.-Dec.) (1,000KL)	FY2014 (1,000KL)	FY2015 3Q(Apr.-Dec.) (1,000KL)	Changes vs. FY2014 3Q(Apr.-Dec.) (%)
a) Gasoline	40,354	52,975	40,486	100.3
b) Kerosene	9,376	16,662	8,597	91.7
c) Diesel Fuel	25,217	33,583	25,299	100.3
d) Fuel Oil A	8,566	12,360	8,092	94.5
a+b+c+d	83,513	115,581	82,474	98.8
Total Domestic Fuel *2	132,144	182,951	131,604	99.6

CDU[*1] Utilization Rate (Excluding the impact of periodic repair and earthquake)

	FY2014	FY2015 1Q	FY2015 2Q	FY2015 3Q
JX Group *3	91%	94%	91%	90%

*1 Crude Distillation Unit
*2 Excluding crude oil for electric power plants
*3 Excluding condensate splitters of Mizushima and Kashima

Source: Petroleum Association of Japan and Company data

Number of Service Stations (Fixed-Type)

(As of the end of fiscal years)

	FY2012	FY2013	FY2014	FY2015.12 *5
JX Group	11,283	11,017	10,783	10,611
EMG *1	3,475	3,379	3,481	3,423
Idemitsu Kosan	3,861	3,786	3,725	3,693
Showa Shell Sekiyu	3,555	3,442	3,317	3,212
Cosmo Oil	3,325	3,228	3,133	3,070
Others *2	1,130	1,096	836	841
Oil Companies	26,629 (74.8%)	25,948 (74.6%)	25,275 (74.6%)	24,850 (74.6%)
Private Brands and Others *3	8,971 (25.2%)	8,852 (25.4%)	8,625 (25.4%)	8,450 (25.4%)
Total *3	35,600	34,800	33,900	33,300

<Number of Company-Owned Service Stations>

	FY2012	FY2013	FY2014	FY2015.12
JX Group	2,487	2,433	2,404	2,382

<Number of Self-Service Stations>

	FY2012	FY2013	FY2014	FY2015.12 *5
JX Group	2,535	2,654	2,752	2,803
Total for Japan *4	7,172	7,415	7,622	7,733

Notes:

*1. Figures are total of Esso, Mobil and Tonen General Sekiyu untill FY2013.
Since FY2014, figures are total of Esso, Mobil, Tonen General Sekiyu and Mitsui Oil & Gas.

*2. Figures are total of Taiyo Petroleum, Kygnus Sekiyu and Mitsui Oil & Gas untill FY2013.
Since FY2014, figures are total of Taiyo Petroleum and Kygnus Sekiyu.

*3. Estimated by JX Holdings.

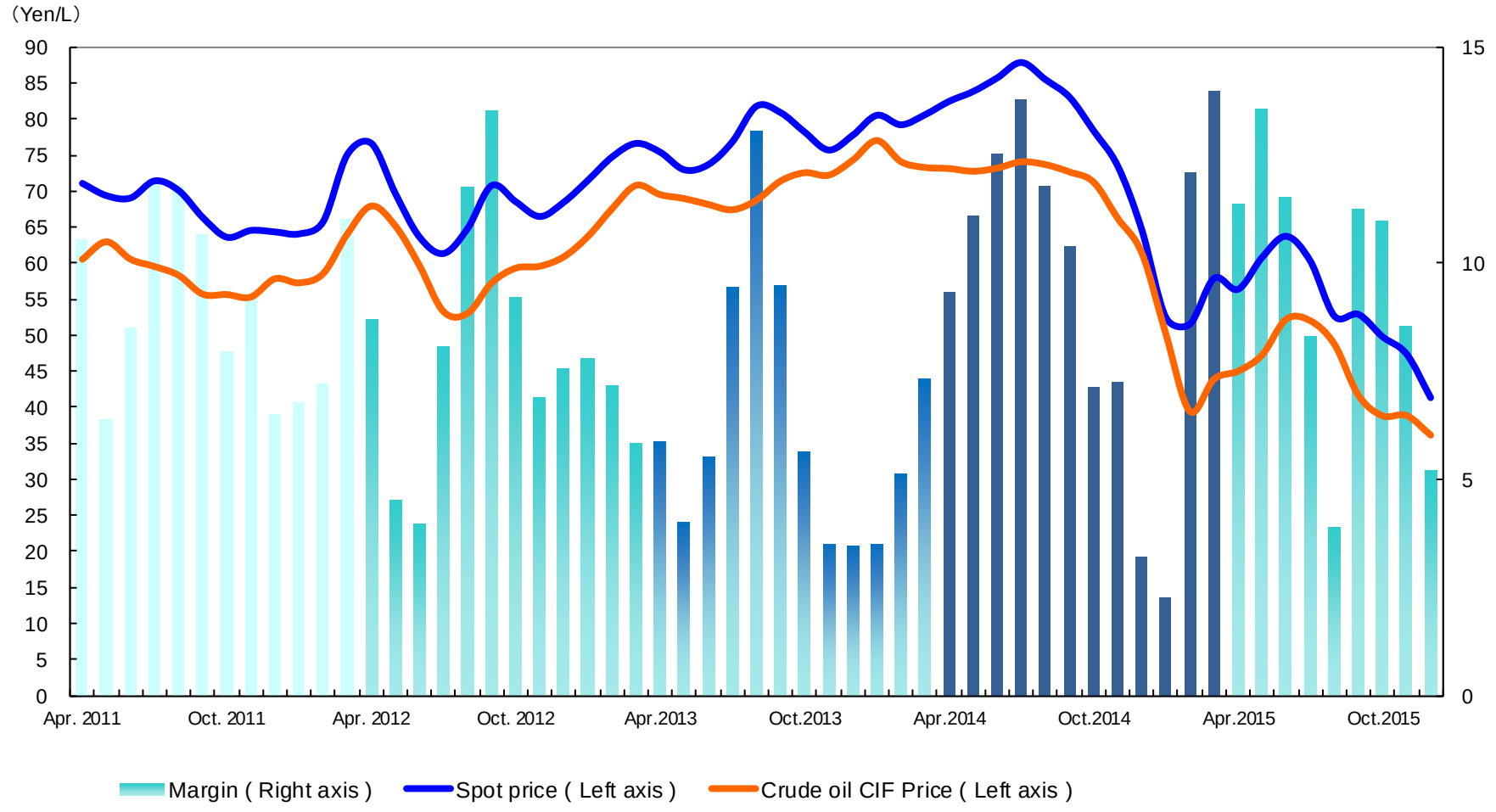
*4. Figures include only self-service retail outlets that are affiliated to oil companies.

*5. Only data of Idemitsu Kosan is as of the end of Sep 2015.

Sales Volume by Product

	FY2014 3Q(Apr.-Dec.)	FY2015 3Q(Apr.-Dec.)	variation	Changes vs. FY2014 3Q(Apr.-Dec.)
	ten thousand KL	ten thousand KL	ten thousand KL	
Gasoline	1,346	1,355	9	0.7%
Premium	159	158	-1	-0.6%
Regular	1,180	1,189	9	0.8%
Naphtha	270	303	33	12.2%
JET	126	116	-10	-7.9%
Kerosene	312	313	1	0.3%
Diesel Fuel	915	924	9	1.0%
Fuel Oil A	336	336	0	0.0%
Heavy Fuel Oil C	495	443	-52	-10.5%
For Electric Power	343	295	-48	-14.0%
For General Use	152	148	-4	-2.6%
Total Domestic Fuel	**3,800**	**3,790**	**-10**	**-0.3%**
Crude Oil	180	146	-34	-18.9%
Lubricants & Specialities	223	214	-9	-4.0%
Petrochemicals (ten thousand ton)	437	473	36	8.2%
Exported Fuel	699	827	128	18.3%
LPG (ten thousand ton)	23	28	5	21.7%
Coal (ten thousand ton)	503	526	23	4.6%
Total Excluding Barter Trade & Others	**5,865**	**6,004**	**139**	**2.4%**
Barter Trade & Others	1,497	1,578	81	5.4%
Total	**7,362**	**7,582**	220	**3.0%**

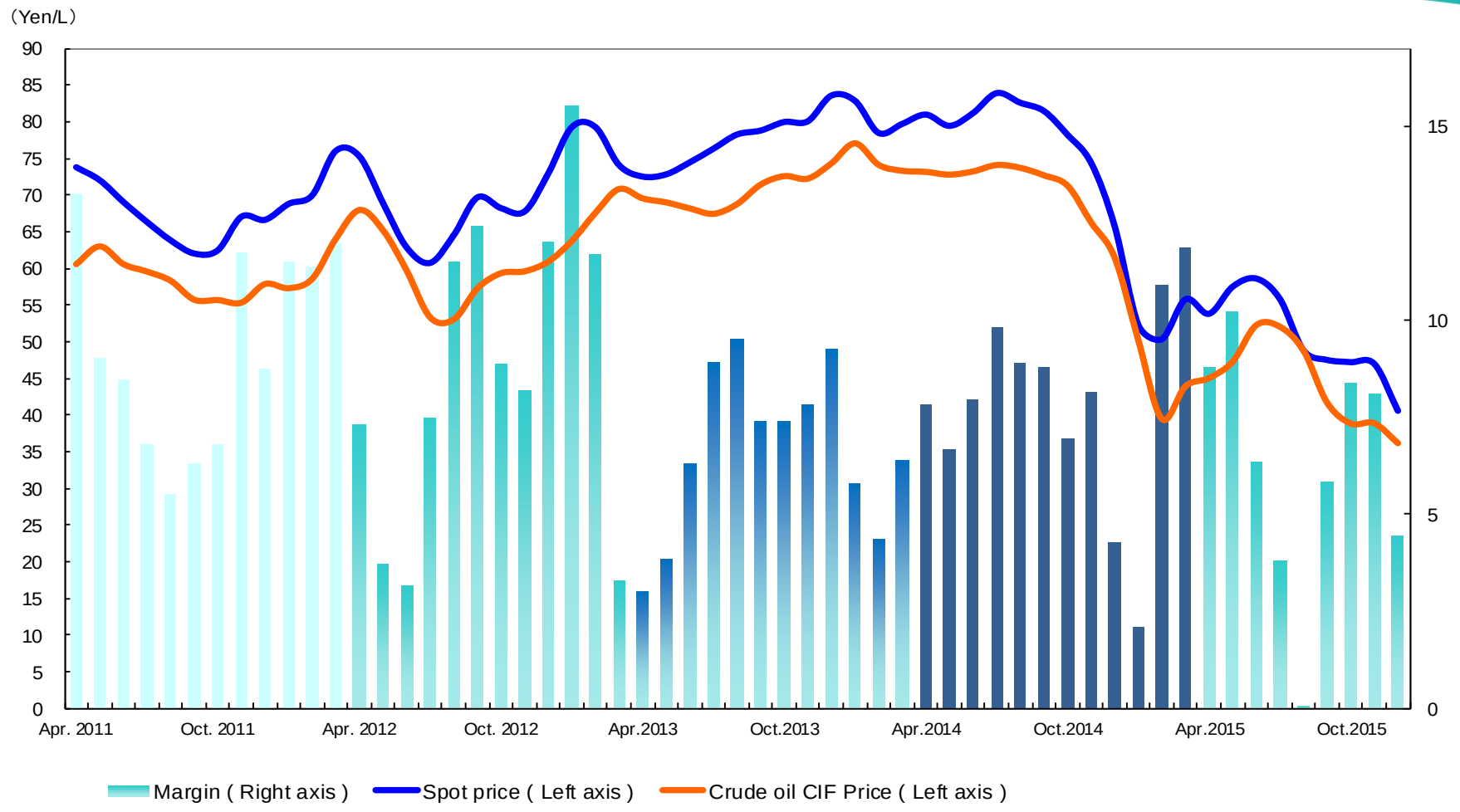
Domestic Market Margin* (Gasoline)



* Margin = Spot Price – All Japan Crude Oil CIF (including petroleum tax and interest)

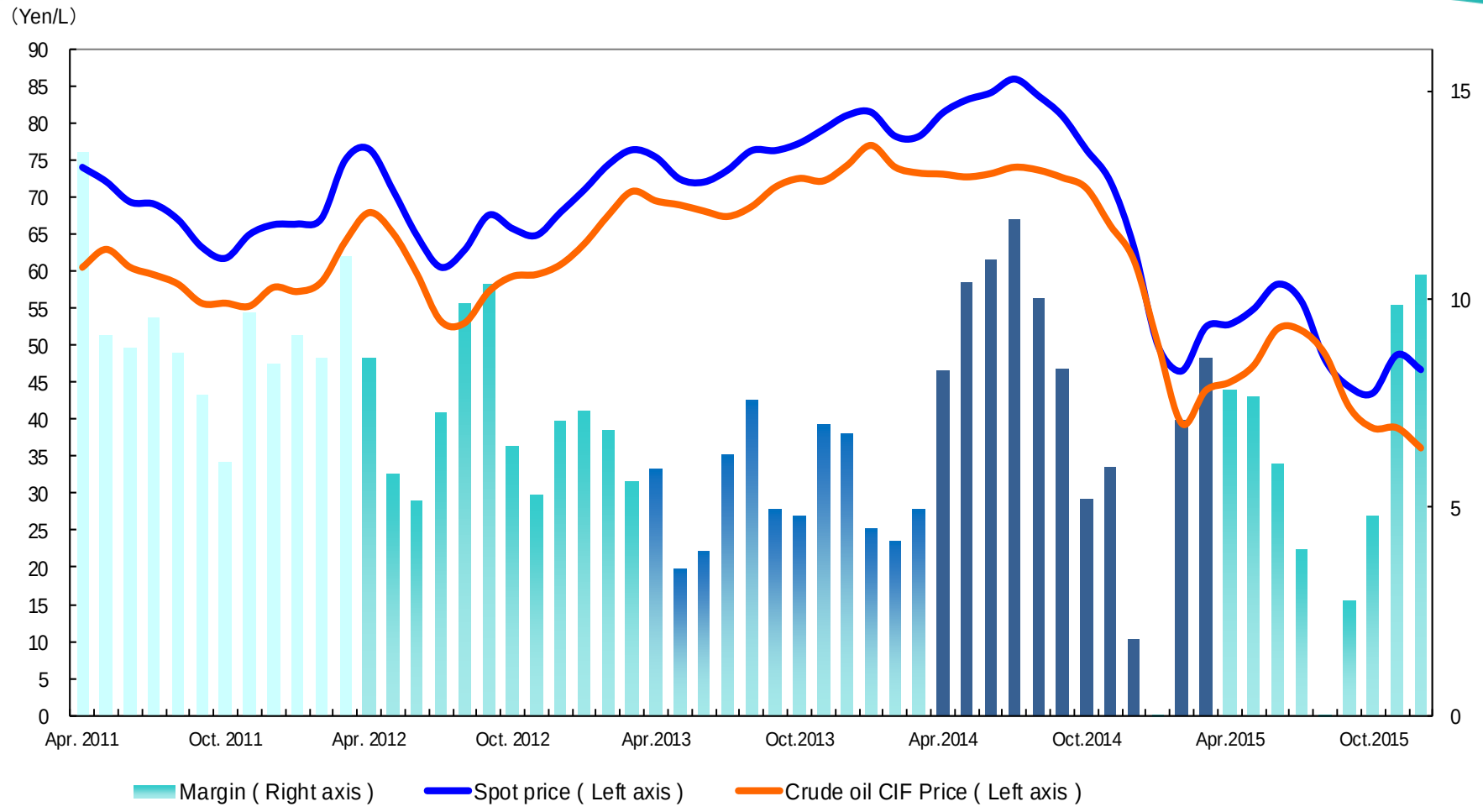
Source : Trade statistics (Ministry of Finance, Japan)

Domestic Market Margin* (Kerosene)



* Margin = Spot Price – All Japan Crude Oil CIF (including petroleum tax and interest) Source : Trade statistics (Ministry of Finance, Japan)

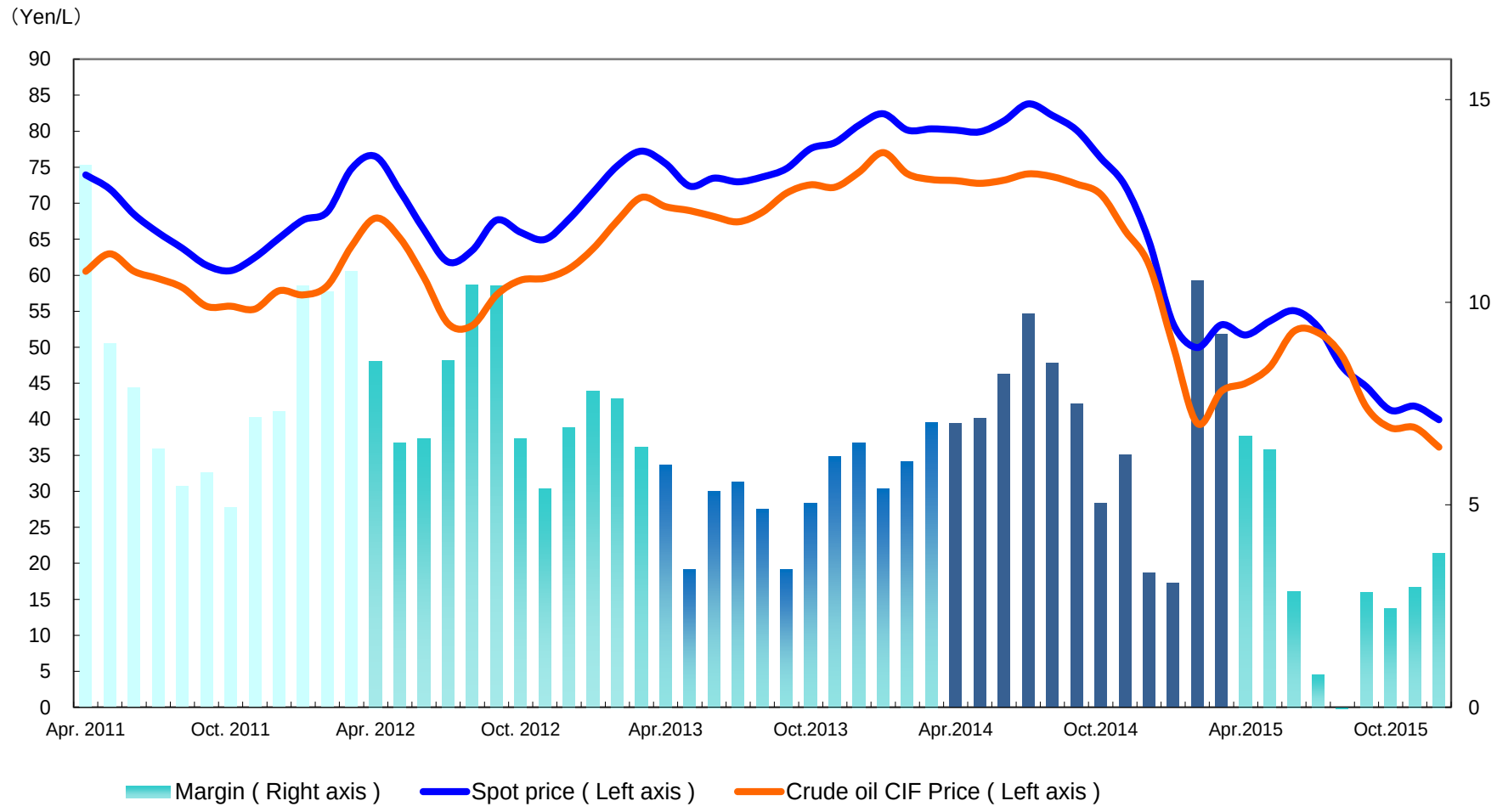
Domestic Market Margin* (Diesel Fuel)



* Margin = Spot Price – All Japan Crude Oil CIF (including petroleum tax and interest)

Source : Trade statistics (Ministry of Finance, Japan)

Domestic Market Margin* (Fuel Oil A)



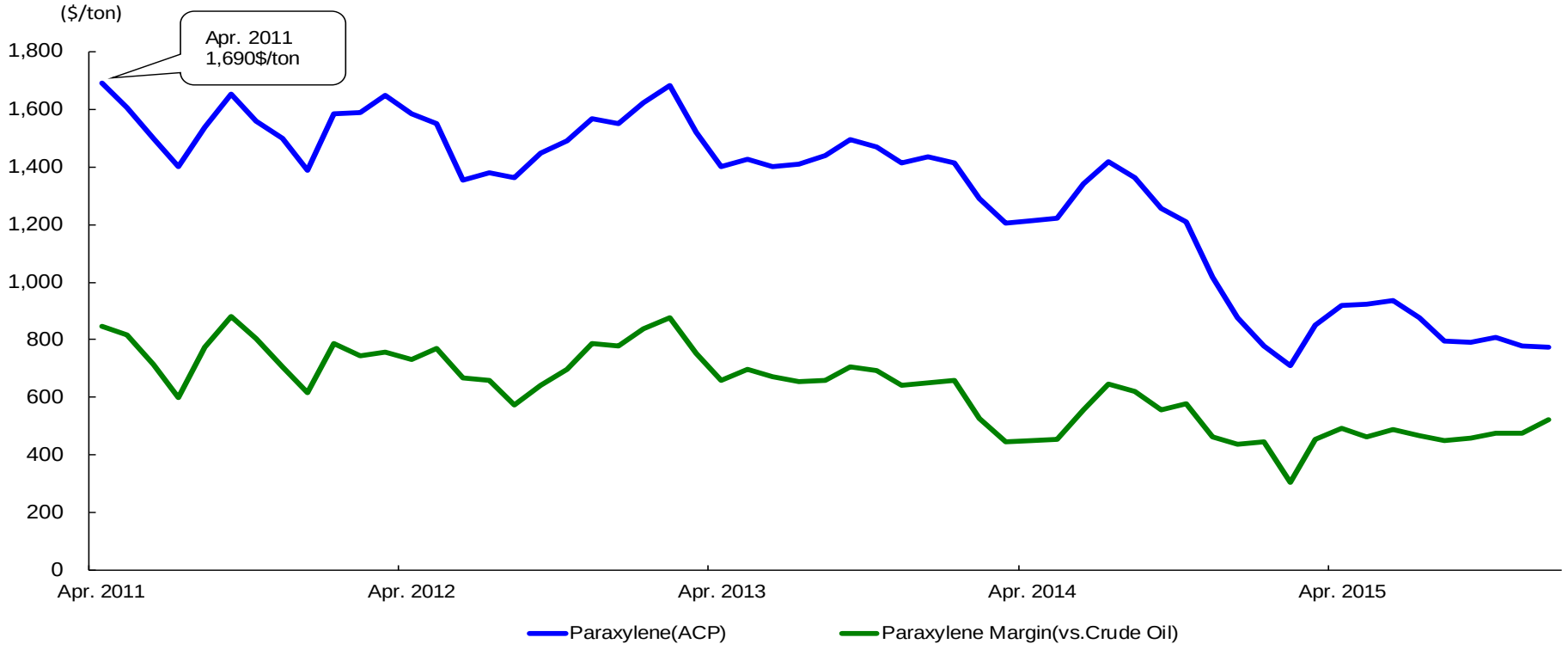
* Margin = Spot Price – All Japan Crude Oil CIF (including petroleum tax and interest)

Source : Trade statistics (Ministry of Finance, Japan)

Paraxylene Price and Margin (vs. Crude Oil)

（$/ton)

Average Price	FY2011	FY2012	FY2013	FY2014					FY2015		
				1 Q	2Q	3Q	4Q	FY	1 Q	2Q	3Q
Asian Contract Price	1,555	1,510	1,401	1,259	1,345	1,035	780	1,105	927	820	788
Margin (vs. Crude Oil)	754	732	639	487	608	494	403	498	481	459	492

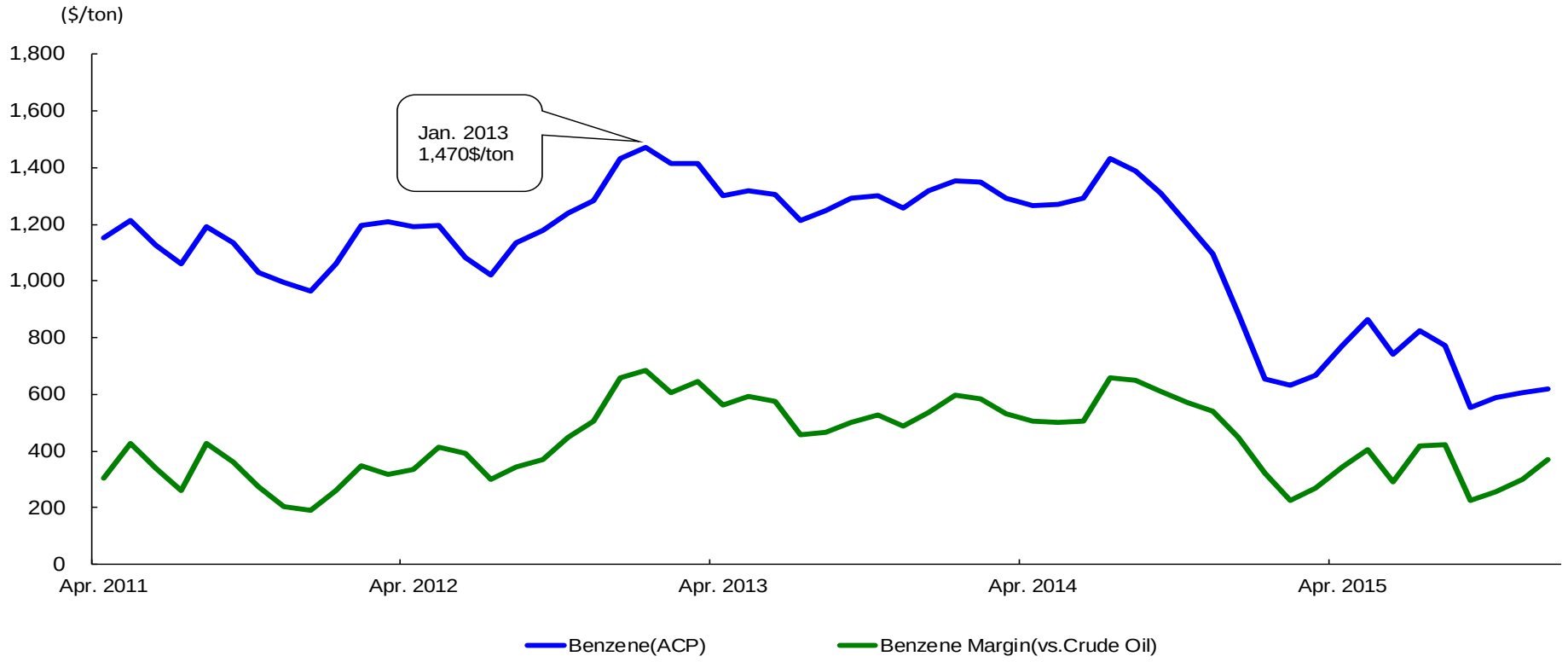


* In case of ACP undecided, average price of spot market is adopted.

Benzene Price and Margin (vs. Crude Oil)

（$/ton)

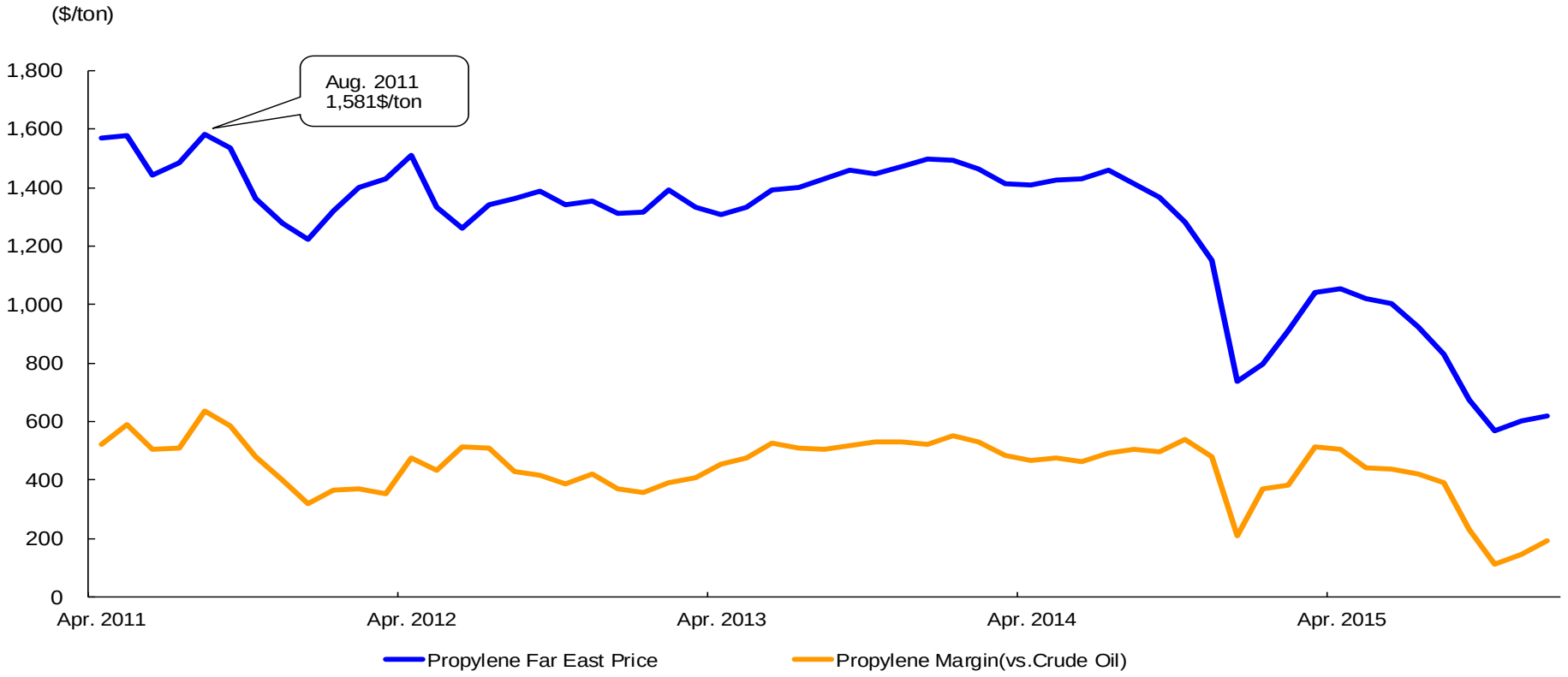
Average Price	FY2011	FY2012	FY2013	FY2014					FY2015		
				1 Q	2 Q	3Q	4Q	FY	1 Q	2Q	3Q
Asian Contract Price	1,111	1,255	1,296	1,274	1,377	1,060	650	1,090	792	717	605
Margin (vs. Crude Oil)	310	476	535	503	639	519	273	483	346	355	309



Propylene Price and Margin (vs. Naphtha)

（$/ton)

Average Price	FY2011	FY2012	FY2013	FY2014					FY2015		
				1Q	2Q	3Q	4Q	FY	1Q	2Q	3Q
Far East Spot Price	1,383	1,353	1,426	1,420	1,412	1,056	916	1,201	1,025	807	595
Margin (vs. Naphtha)	362	426	511	468	498	409	422	449	461	347	149



Business Environment
- Oil and Natural Gas E&P Business -

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Oil and Natural Gas E&P Business

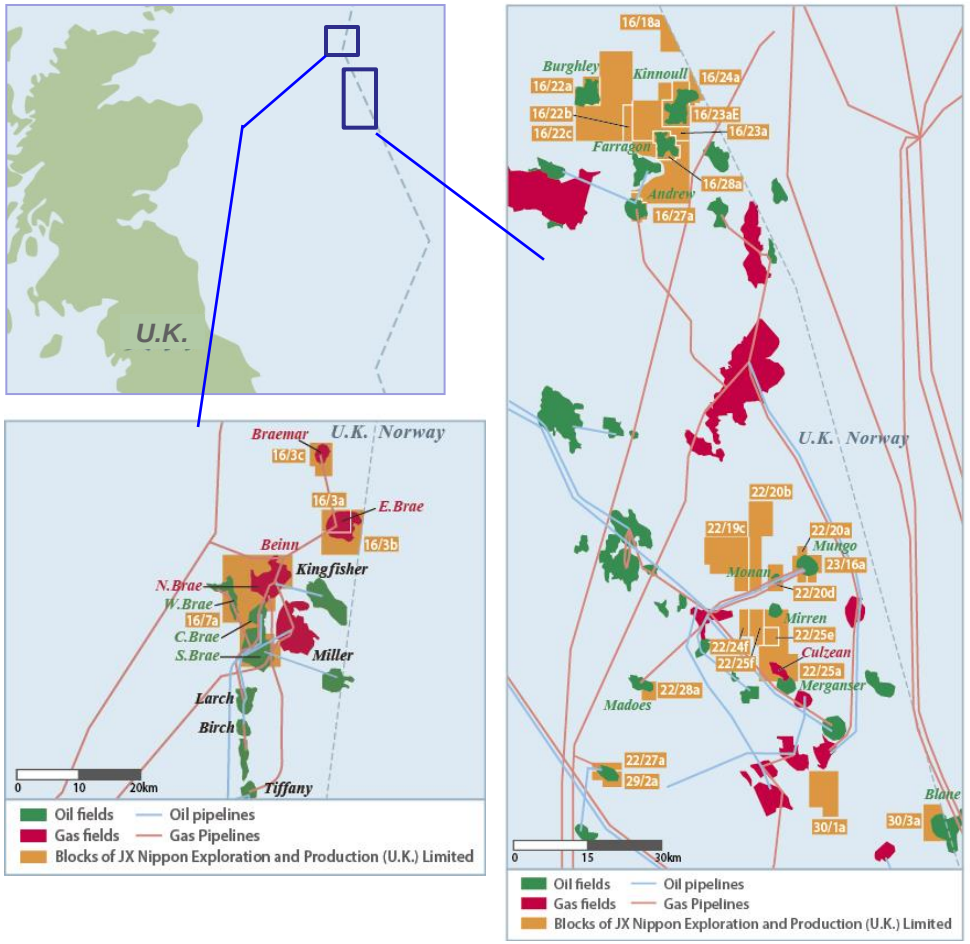
Principal Individual E&P Project Overview (U.K.①)

Principal Individual E&P Project Overview （U.K. ①)

U.K. North Sea ①

Production

Development



	Brea、Andrew、Blane、Kinnoull and other fields	Culzean gas field
Company Holding the Acreages	JX Nippon Exploration and Production (U.K.) Ltd.	
Shareholders(Holding Percentages)	JX Nippon Oil & Gas Exploration（100%）	
Project Status	Exploration/Production	Exploration
Interest	4.0%～27.39%	34.01%
Partners	BP、Talisman、Marathon and others	Maersk(49.99%) BP(16.00%)
Operator	BP、Talisman、Marathon and others	Maersk
Sales Volumes(Jan.～Sep. 2015)	12,500 boed（oil 10,000b/d、gas 14.8mmcf/d）	

We have over 10 fields currently producing oil and gas as well as such projects as Culzean gas field and Mariner Oil Field underway.

Production

Mining Area during the production
Andrew, Kinnoull, Brae, Mirren / Madoes, Blane Oil and Gas Fields etc.

- From 1994 to 2002, acquired a working interest in individual blocks.
- In December 2012, acquired some interest in production of plural assets from ENI.
- In December 2014, Kinnoull started production

Development

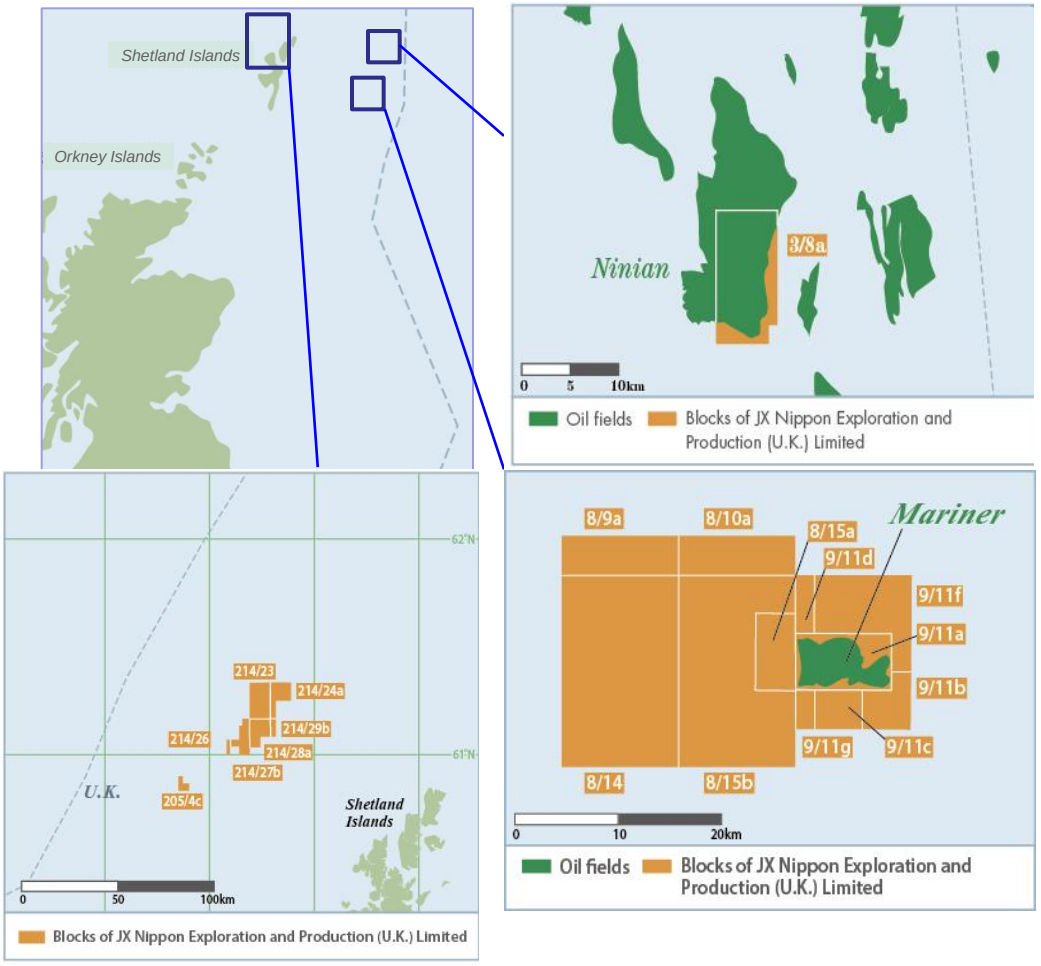
Mining Area during Development
22/25a Culzean gas field.

- In March 2011, confirmed the presence of a significant hydrocarbon accumulation.
- In December 2012, acquired the additional interest from ENI.
- In August 2015, decided to develop.
  In 2019 Production scheduled to commence.

Principal Individual E&P Project Overview （U.K. ②）

U.K. North Sea ②

Development | Production | Exploration



	Mariner Field	Ninian Field	Exploration Areas
Company Holding the Acreages	JX Nippon Exploration and Production (U.K.) Ltd.		
Shareholders(Holding Percentages)	JX Nippon Oil & Gas Exploration（100%）		
Project Status	Development	Production	Exploration
Interest	28.89%	12.94%	17.5%～55%
Partners	Statoil (65.11%) Dyas (6.00%)	CNR(87.06%)	GDF、Idemitsu and others
Operators	Statoil	CNR	JXNEPUK、GDF Idemitsu and others

Development

Mining Area during Development : Mariner Oil Field

- In December 2012, acquired the explorational interest of Mariner Oil Field from ENI.
- In February 2013, decided to develop.
  In 2018 Production scheduled to commence.

Exploration

Mining Area during Exploration
West of Shetlands Area

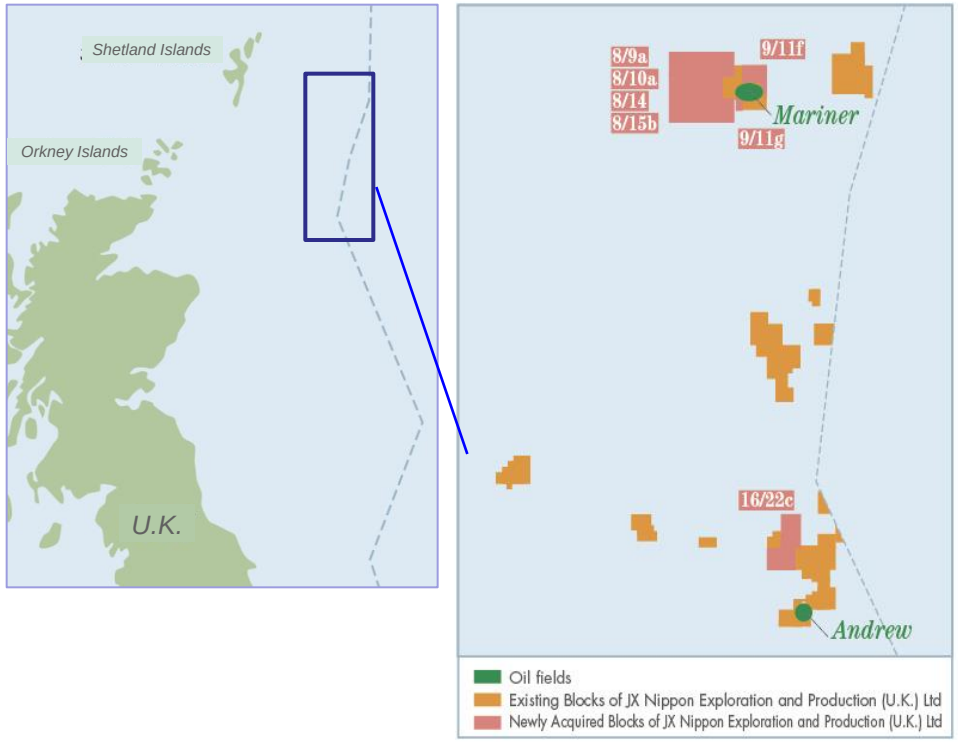
- In October 2012, new blocks are acquired by 27th round of governmental open tender.

Principal Individual E&P Project Overview （U.K. ③）

U.K. North Sea ③

Exploration

New blocks are acquired in 2014 by 28th round of governmental open tender .



	North Sea Central Area 16/22c	North Sea Northern Area 8/9a、8/10a、8/14、8/15b、9/11f、9/11g
Company Holding the Acreages	JX Nippon Exploration and Production (U.K.) Ltd.	
Shareholders(Holding Percentages)	JX Nippon Oil & Gas Exploration（100%）	
Project Status	Exploration	
Interest	30.00%	28.89%
Partners	BP (70.00%)	Statoil (65.11%) Dyas (6.00%)
Operator	BP	Statoil

These areas are next to the Andrew oil field and developed Mariner oil field which are our main asset, in the case when oil and gas field were found, we expect developing cost reduction by using facilities in these oil fields.

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Oil and Natural Gas E&P Business

Principal Individual E&P Project Overview (U.S.①)

Principal Individual E&P Project Overview (U.S.①)

Gulf of Mexico

Production

	K2 (offshore)	Orchard North (onshore)	MP140、ST179、WC265/266 (offshore)
Company holding the Acreage	JX Nippon Oil Exploration(U.S.A.) Ltd.		
Shareholders(Holding Percentages)	JX Holdings (U.S.A.) Inc.(100%)		
Project Status	Production	Production	Production
Interest	11.6%	50.0%	35.0%～60.0%
Partners	Anadarko(41.8%) ENI(13.4%) ConocoPhillips(12.4%) MCX(11.6%) EcoPetrol(9.2%)	Hilcorp (50.0%)	Fieldwood Tarpon
Operator	Anadarko	Hilcorp	Fieldwood and others
Sales Volumes(Jan.～Sep. 2015)	2,500 boed (Oil 1,600b/d、Gas 5.4mmcf/d)		

Production

Mining Area during the productionK2, Orchard North, MP140, ST179, WC265/266

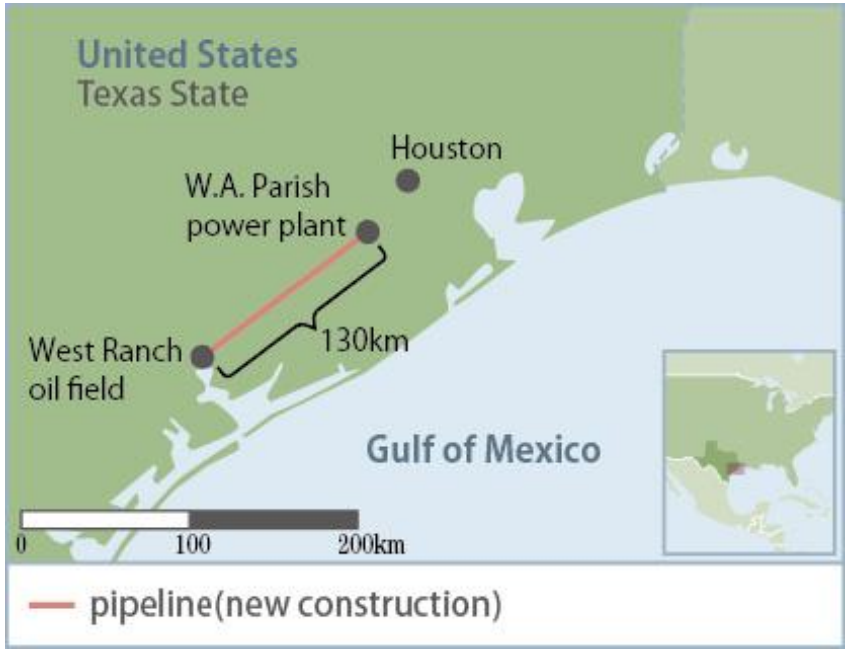
- In 1990, began exploration, development, and production operations at an onshore field in Texas and offshore blocks in both deep as well as shallow waters in the Gulf of Mexico.
- In addition to continuing such existing operations as those in the Orchard North Gas Field, Aconcagua Gas Field, and Virgo Gas Field, purchased interests in certain producing assets in the Gulf of Mexico from Devon in 2005 and from Anadarko in 2007.

We hold assets in the Gulf of Mexico in the United States, which range from the continental shelf (less than 200meters in depth) to deep water area (more than 200 meter in depth).

Principal Individual E&P Project Overview (U.S.②)

Texas

Development



Development

CO2-EOR Project

- In July 2014, participated in CO2-EOR business.
- In 4th quarter of 2016, scheduled to start production.

Constructing carbon capture system that captures 90% of carbon dioxide (CO2) in the processed flue gas from an existing unit at the WA Parish power plant, and by pressing captured carbon dioxide in West Ranch oil field, trying to increase crude oil production.
EOR is expected to boost oil production at the field from around 500barrels per day to approximately 12,000 barrels per day (average for project terms).

	CO2-EOR Project
Operating Company of JX NOEX	JX Nippon Oil Exploration (EOR) Ltd.
Shareholders (Holding Percentages)	JX Nippon Oil Exploration (U.S.A.) Ltd. (100%)
Project Status	Development
Interest	50.0%
Project Company	Petra Nova Parish Holdings LLC ＊

＊ A company half-funded by JX Nippon Oil Exploration (EOR) Ltd. and NRG Energy Inc. Group

Principal Individual E&P Project Overview (Canada)

Canada

Production | Development

	Syncrude Project
Company Holding the Acreages	Japan Canada Oil/Mocal Energy
Shareholders(Holding Percentages)	JX Nippon Oil & Gas Exploration (100%)
Project Status	Development / Production
Interest	5.0%
Partners	Canadian Oil Sands（36.7%） Imperial Oil Resources（25.0%） Suncor Energy（12.0%） Sinopec（9.0%） Nexen（7.2%） Murphy Oil Company（5.0%）
Operator	Syncrude Canada
Sales Volumes(Jan.～Sep. 2015)	12,200boed (oil 12,200b/d)

We are a partner in the Syncrude Project that produces synthetic crude oil from oil sand, the sand containing bitumen, huge deposits of which are found in Canada.

Production

- In 1978, Started Shipment of Synthetic Crude Oil.
- In 1992, acquired a working interest from PetroCanada.

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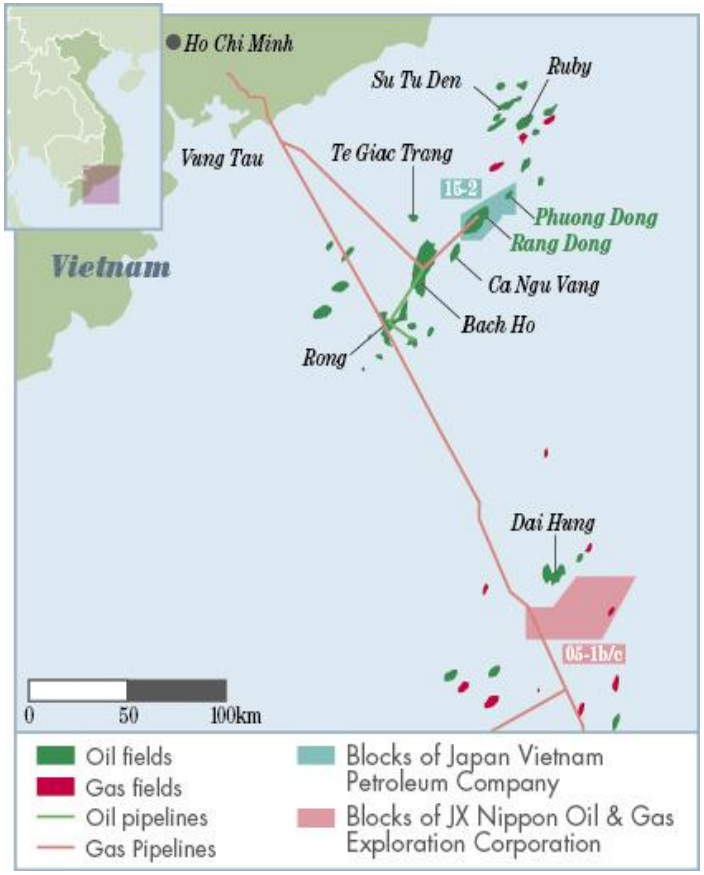
Oil and Natural Gas E&P Business

Principal Individual E&P Project Overview (Vietnam ①)

Principal Individual E&P Project Overview (Vietnam ①)

Vietnam

Production | Development | Exploration



	Block 15-2		Block 05-1b/c
	Rang Dong Oil Field	Phuong Dong Oil Field	
Company Holding the Acreages	Japan Vietnam Petroleum Company		JX Nippon Oil & Gas Exploration
Shareholders(Holding Percentages)	JX Nippon Oil & Gas Exploration (97.1%) Mitsubishi Corporation (2.9%)		-
Project Status	Exploration/Development/Production		Exploration
Interest	46.5%	64.5%	35.0%
Partners	PVEP (17.5%) Perenco (36.0%)	PVEP (35.5%)	Idemitsu Kosan (35.0%) INPEX (30.0%)
Operator	Japan Vietnam Petroleum Company		Idemitsu Kosan
Sales Volumes (Jan.～Sep. 2015)	5,700 boed (oil 5,600b/d, gas 0.2mmcf/d)		-

Principal Individual E&P Project Overview (Vietnam ②)

Block 15-2 (Rang Dong, Phuong Dong Oil Fields)

Production | Development | Exploration

Since the acquisition in 1992, the project has been one of our key operations. JVPC, our subsidiary, act as operator in the block.
The Rang Dong Oil Field and The Phuong Dong Oil Field feature an unconventional fractured granite basement rock reservoir that is unique in the world. Our fracture evaluation technology is highly valued and receiving worldwide recognition.
As part of our corporate activities, we have been promoting social welfare activities in Vietnam to improve the lives of the people of Vietnam, furthermore, we have been implementing a CDM project aimed at reducing greenhouse gas emissions.

- In 1992, JVPC acquired a working interest in block 15-2
- In 1994, JVPC discovered the Rang Dong Oil Field within block 15-2, and it began production in that field from 1998.
- In February 2008 and April 2011, Rang Dong CDM Project received CER (Certified Emission Reductions) issuance approval under the Kyoto Protocol.
- In July 2008, Rang Dong Oil Field achieved a cumulative production volume of 150 million barrels.
- In August 2008, JVPC began production in the Phuong Dong Oil Field.
- In November 2013, determined on term extension of the Rang Dong Oil Field (5 years).
- In July 2014, block 15-2 achieved a cumulative production volume of 200 million barrels.
- In October 2014, JVPC began HCG-EOR project.

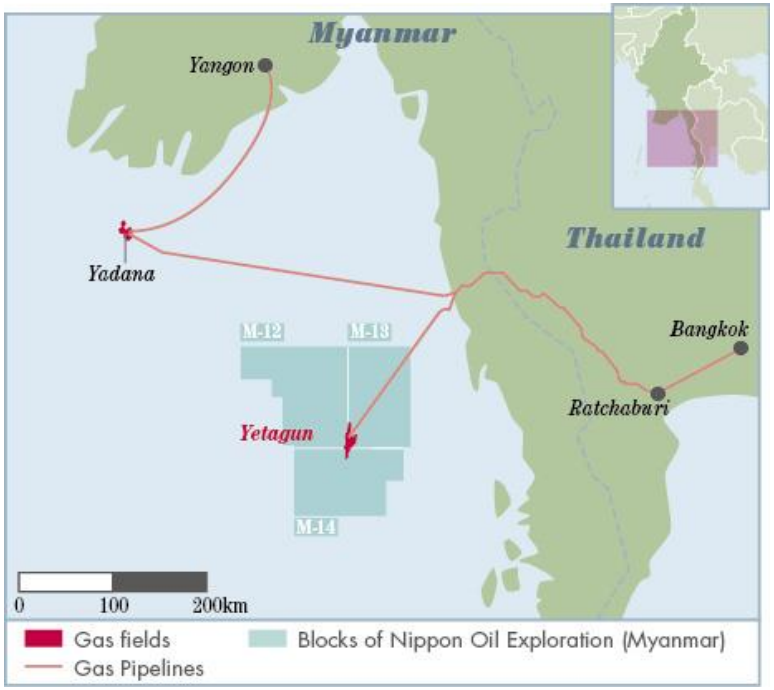
Block 05-1b/c

Exploration

- In October 2004, acquired a working interest in block 05-1b/c offshore Vietnam.
- In February 2007, excavated test well No.1.
- In August 2010, excavated test well No.2, and discovered gas and oil.
- In August 2012, excavated appraisal well No.1.
- In June 2013, confirmed gas and condensate.
- In August 2014, discovered gas and condensate.

Principal Individual E&P Project Overview (Myanmar)

Myanmar | Production | Exploration



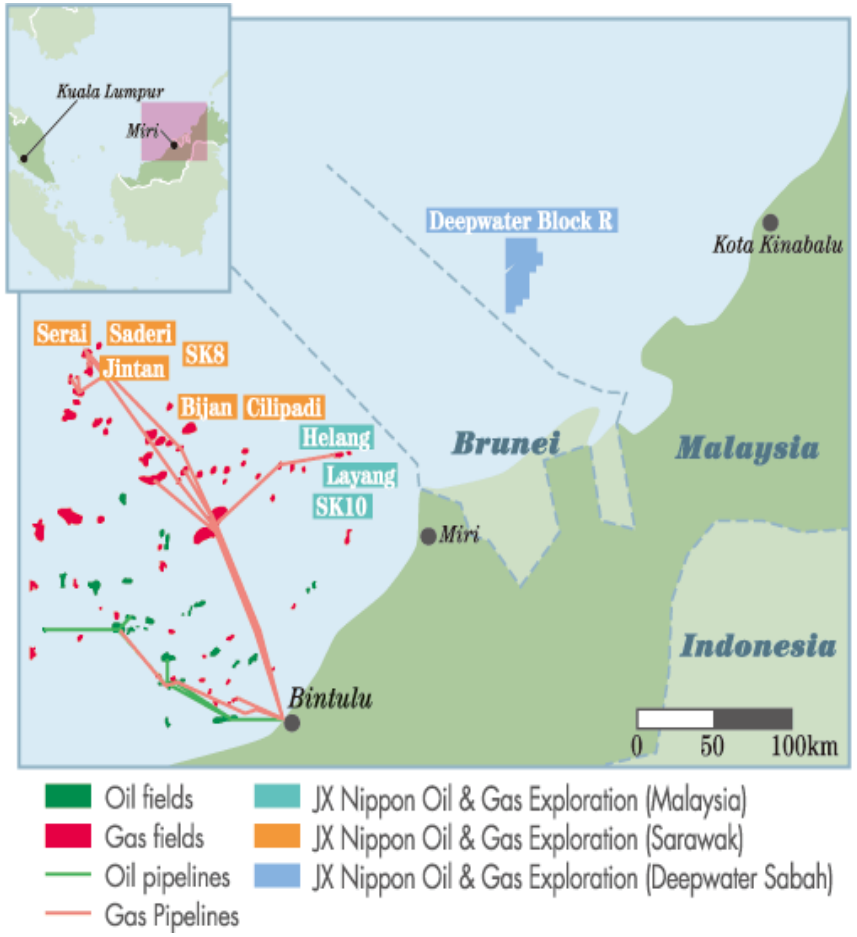
We have been participating in the Yetagun project in Myanmar since exploration stage. After the appraisal activities and the construction of the production and shipping facilities, the project is now at a stable production stage.

	Bolock M-12, 13, 14
Company Holding the Acreages	Nippon Oil Exploration (Myanmar)
Shareholders (Holding Percentages)	JX Nippon Oil & Gas Exploration (40.0%) Mitsubishi Corporation (10.0%) Government of Japan (50.0%)
Project Status	Exploration / Production
Interest	19.3%
Partners	Petronas Carigali（40.9%） MOGE(20.5%) PTTEP International（19.3%）
Operator	Petronas Carigali
Sales Volumes(Jan.～Sep. 2015)	7,800boed (oil 700b/d, gas 42.8mmcf/d）

- In 1991, NOEX Myanmar acquired a working interest in blocks M-13/14 offshore Myanmar.
- The following year, acquired a working interest in block M-12 and discovered the Yetagun Gas Field in that block.
- In 2000, production at the Yetagun Gas Field commenced, with the produced gas supplied to the Ratchaburi power plants in Thailand.
- In December 2013, sold 10% of Nippon Oil Exploration (Myanmar)'s stock to Mitsubishi Corporation.
- In September 2014, excavated test well No.1.
- In October 2014, began production in the Yetagun North Gas Field.

Principal Individual E&P Project Overview (Malaysia ①)

Malaysia | Production | Development | Exploration



	SK10 (Herang Gas Field, Others)	SK8 (Jintan, Cilipadi Gas Field, Others)
Company holding the Acreage	JX Nippon Oil & Gas Exploration (Malaysia)	JX Nippon Oil & Gas Exploration (Sarawak)
Shareholders (Holding Percentages)	JX Nippon Oil & Gas Exploration (78.7%) Inpex (15.0%) Mitsubishi Corporation (6.3%)	JX Nippon Oil & Gas Exploration (76.5%) Inpex (15.0%) Mitsubishi Corporation (8.5%)
Project Status	Exploration/Development/Production	Production
Interest	75.0%	37.5%
Partnaers	Petronas Carigali (25.0%)	Shell Oil and Gas Malaysia（37.5%） Petronas Carigali (25.0%)
Operator	JX Nippon Oil & Gas Exploration (Malaysia)	Shell Oil and Gas Malaysia
Sales Volume (Jan.～Sep. 2015)	20,800boed (Oil 1,800b/d、Gas 114.1mmcf/d)	11,000boed (Oil 1,200b/d、Gas 59.1mmcf/d)

Principal Individual E&P Project Overview (Malaysia ②)

Block SK10 (Helang Gas Field and others)

Since the acquisition of Block SK10 in 1987, the project has been one of our key operations. We act as the operator in the block. The natural gas from the block is exported in the form of liquefied natural gas (LNG) to various countries including Japan.

Production | Development | Exploration

Mining Area during the production
SK10 (Helang Gas Field)

- In 1987, acquired a working interest in Block SK10 offshore Sarawak, Malaysia.
- In 1990, discovered the Helang Gas Field, where production commenced in 2003.
- In 1991, discovered the Layang Oil and Gas Field.
- In 2014, decided to develop the Layang Oil and Gas Field.

Block SK8 (Jintan, Cilipadi Gas Fields and others)

Production | Development

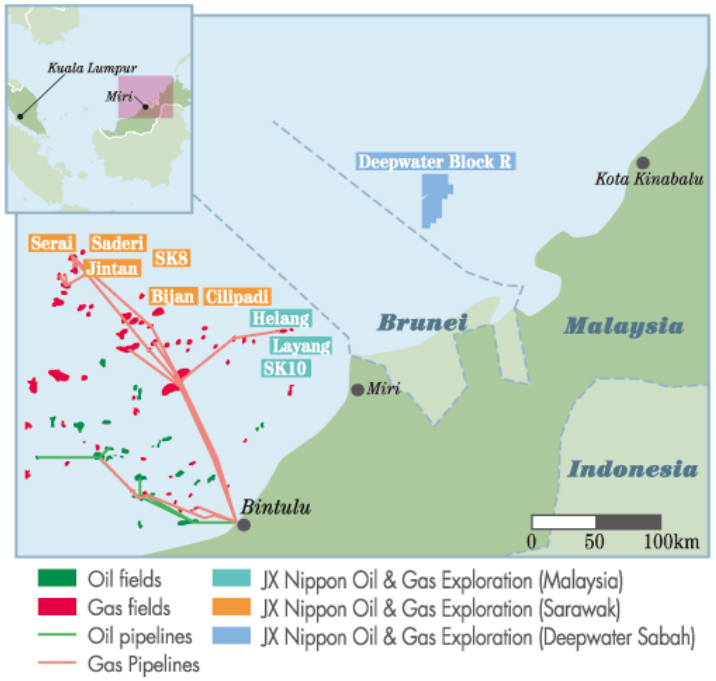
Mining Area during the production
SK8 (Jintan, Saderi, Cilipadi Gas Fields)

- In 1991, acquired a working interest in Block SK8 .
- From 1992 through 1994, the Jintan and other 6 gas fields were discovered in that block, and production of Jintan and Serai were commenced in 2004.
- In 2008, the Saderi Gas Field commenced production.
- In 2011, the Cilipadi Gas Field commenced production.

Principal Individual E&P Project Overview (Malaysia ③)

Malaysia

Exploration



	Deepwater Block R	Deepwater Block 2F
Company holding the Acreage	JX Nippon Oil & Gas Exploration (Deepwater Sabah)	JX Nippon Oil & Gas Exploration (Offshore Malaysia)
Shareholders (Holding Percentages)	JX Nippon Oil & Gas Exploration (54.8%) JOGMEC (45.2%)	JX Nippon Oil & Gas Exploration (100%)
Project Status	Exploration	Exploration
Interest	27.5%	40.0%
Partners	Inpex Offshore South Sabah(27.5%) Petronas Carigali(25.0%) Santos Sabah BlockR(20.0%)	Petronas Carigali (40.0%) GDF Suez E&P Malaysia (20.0%)
Operator	JX Nippon Oil & Gas Exploration (Deepwater Sabah)	JX Nippon Oil & Gas Exploration (Offshore Malaysia)

	Deepwater Block 3F
Company holding the Acreage	JX Nippon Oil & Gas Exploration (Offshore Malaysia)
Shareholders (Holding Percentages)	JX Nippon Oil & Gas Exploration (100%)
Project Status	Exploration
Interest	40.0%
Partners	Petronas Carigali (40.0%) GDF Suez E&P Malaysia (20.0%)
Operator	Petronas Carigali

Principal Individual E&P Project Overview (Malaysia ④)

Deepwater Block R

Exploration

- In January 2012, acquired a working interest in Deepwater Block R deep sea, offshore Sabah, Malaysia.
- In April 2015, discovered oil.

Deepwater Block 3F

Exploration

- In December 2013, acquired a working interest in Deepwater Block 3F deep sea, offshore Sarawak, Malaysia.

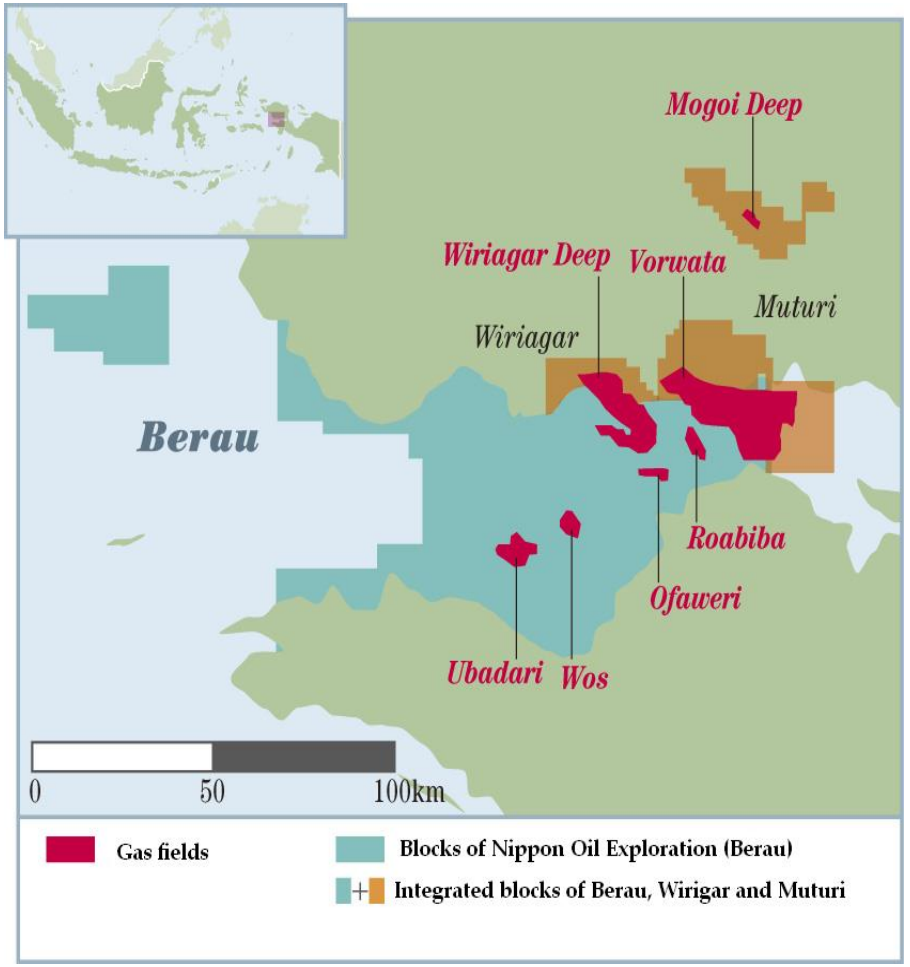
Deepwater Block 2F

Exploration

- In September 2013, acquired a working interest in Deepwater Block 2F deep sea, offshore Sarawak, Malaysia.

Principal Individual E&P Project Overview (Indonesia)

Indonesia | Production | Development | Exploration



	Tangguh LNG Project
Company Holding the Acreages	Nippon Oil Exploration (Berau)
Shareholders (Holding Percentages)	JX Nippon Oil & Gas Exploration (51.0%) JOGMEC (49.0%)
Project Status	Exploration/Development/Production
Interest	12.2%(After Unitization)
Partners	BP(37.2%) KG Berau / KG Wiriagar (10.0%) MI Berau(16.3%) LNG Japan (7.3%) CNOOC(13.9%) Talisman (3.1%)
Operator	BP
Sales Volumes (Jan.～Sep. 2015)	16,800boed (oil 400b/d, gas 98.3mmcf/d)

This is the second LNG project we have participated in, following the LNG Tiga project in Malaysia, and we are working to attain long-term and stable LNG production and revenue.

Production **Project during the production : Tangguh LNG Project**

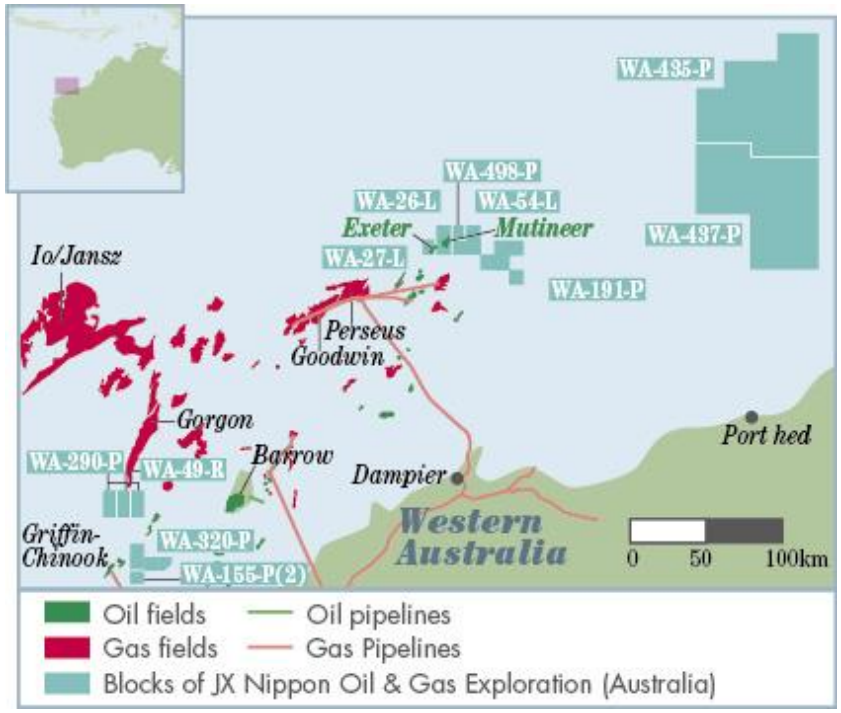
- From 1990, excavated three test wells, natural gas was discovered in the area. Subsequently, discovered natural gas in the Vorwata Gas Field, Wiriagar Deep structure, and other gas field.
- From December 2002, those with interests in the Berau, Wiriagar, and Muturi blocks agreed to become partners in unitizing the blocks and undertake development work cooperatively.
- LNG production commenced in June 2009, and the first cargo was shipped in July 2009.

Principal Individual E&P Project Overview (Australia①)

Australia

Production

Exploration



	Mutineer/Exeter Oil Field	Finucane South Oil Field Block WA-191-P
Company Holding the Acreages	JX Nippon Oil & Gas Exploration (Australia) Pty Ltd	
Shareholders(Holding Percentages)	JX Nippon Oil & Gas Exploration(100%)	
Project Status	Production	Exploration/Production
Interest	25.0%	25.0%
Partners	Santos (37.5%) Kufpec (37.5%)	Santos (37.4977%) Kufpec (37.5023%)
Operator	Santos	Santos
Sales Volumes (Jan.～Sep. 2015)	1,000 boed(Oil 1,000b/d)	

We are producing high-quality low-sulfur crude oil from Mutineer / Exeter oil fields. Revenue from the sales of the crude oil is used for new exploration activities within Australia and in May 2014, newly started production from Finucane South Oil Field.

Production

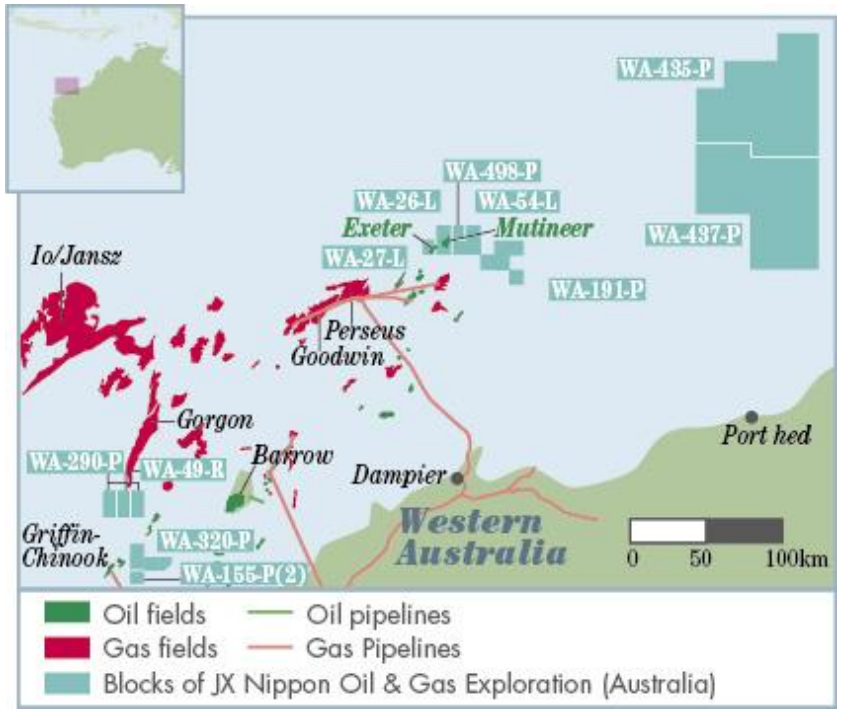
Exploration

- In May 1997, acquired a working interest in Block WA-191-P (present Block WA-26/27-L)
- From 1997 to 2002, discovered Mutineer and Exeter Oil Fields
- In March 2005, oil production commenced in Mutineer and Exeter Oil Fields
- In May 2011, discovered oil in Finucane south structure.
- In May 2013, oil production commenced in Finucane South Oil Fields.

Principal Individual E&P Project Overview (Australia②)

Australia

Exploration



	WA-290-P WA-49-R	WA-435-P WA-437-P	WA-320-P
Company Holding the Acreages	JX Nippon Oil & Gas Exploration (Australia) Pty Ltd		
Shareholders(Holding Percentages)	JX Nippon Oil & Gas Exploration（100%）		
Project Status	Exploration	Exploration	Exploration
Interest	15.0%	20.0%	10.0%
Partners	Quadrant (30.25%) Santos (24.75%) OMV(20.00%) Tap(10.00%)	Quadrant (40.0%) Finder (20.0%) Carnarvon (20.0%)	Quadrant (40.665%) OMV (39.557%) Tap (9.778%)
Operator	Quadrant	Quadrant	Quadrant

	WA-155-P(2)	WA-498-P
Company Holding the Acreages	JX Nippon Oil & Gas Exploration (Australia) Pty Ltd	
Shareholders(Holding Percentages)	JX Nippon Oil & Gas Exploration（100%）	
Project Status	Exploration	Exploration
Interest	7.0%	25.0%
Partners	Quadrant (40.665%) OMV(27.11%) Inpex (18.67%) Tap(6.555%)	Santos (75.0%)
Operator	Quadrant	Santos

Principal Individual E&P Project Overview (Australia③)

Block WA-290-P,Block WA-49-R

Exploration

- In April 2011, excavated test well "Zola-1", and discovered Gas
- In July 2013, excavated appraisable well "Bianchi-1", and discovered Gas

Block WA-320-P,Block WA-155-P(2)

Exploration

- In June 2013, acquired working interests in Block WA-320-P and Block WA-155-P

Block WA-435-P,Block WA-437-P

Exploration

- In October 2012, acquired working interests in Block WA-435-P and Block WA-437-P
- In August 2014, discovered oil in Block WA-435-P

WA-498-P

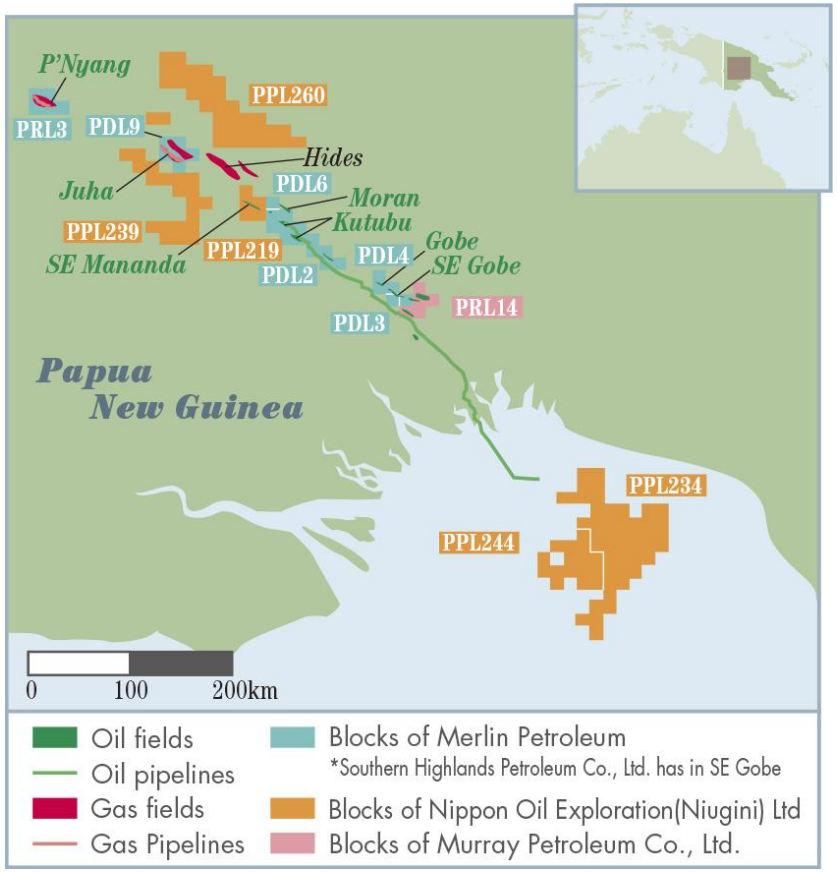
Exploration

- In April 2014, acquired working interests in WA-498-P.

Principal Individual E&P Project Overview (Papua New Guinea ①)

Papua New Guinea

Production | Development | Exploration



	Kutubu, Moran, Gobe oil fields, Others	PNG LNG Project
Company Holding the Acreages	Merlin Petroleum Company (79.0%) Nippon Oil Exploration (Niugini) Pty LTD (30.5%) Southern Higjland Petroleum (80.0%) Murray Petroleum（29.6%）	Nippon Papua New Guinea LNG LLC（79.0%）
Project Status	Exploration / Development / Production	Production
Interest	8.6%～73.5%	4.68%
Partners	Oil Search ExxonMobil Santos Talisman Others	ExxonMobil (33.20%) Oil Search (29.00%) Santos(13.53%) PNG Government, Landowners (19.58%)
Operator	Oil Search, ExxonMobil, Others	ExxonMobil
Sales Volume (Jan.～Sep. 2015)	15,400 boed（oil 6,500b/d、gas 52.9mmcf/d）	

Principal Individual E&P Project Overview (Papua New Guinea ②)

Kutubu, Moran, Gobe oil fields and others

Production

- In 1990, Japan Papua New Guinea Petroleum acquired Merlin and acquired original exploration rights of Merlin in Papua New Guinea.
  Subsequently, development, and production activities have been undertaken in the Kutubu, Moran, Gobe, SE Gobe, and SE Mananda oil fields.
- In 2008, acquired additional equity of oil field from AGL Energy.

Exploration

- In April 2011, excavated test well “Mananda-5” in Block PPL219, and discovered oil.

PNG LNG Project

Development

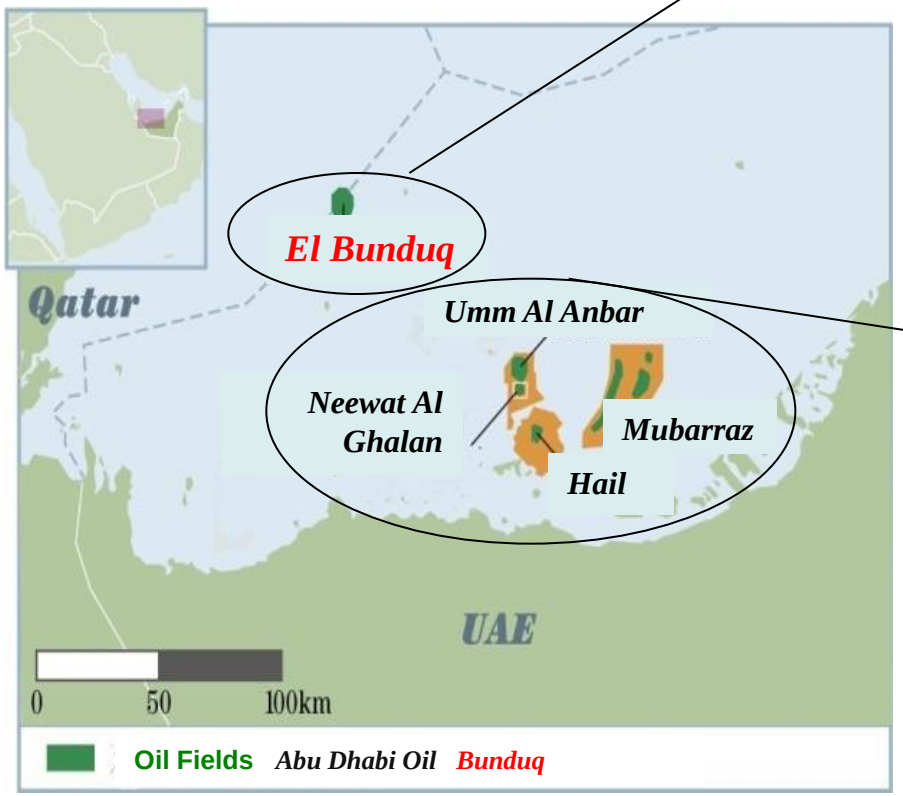
Project during the development
PNG LNG Project

We have been involved in PNG LNG Project since the beginning of the project. In December 2009, we made a Final Investment Decision on the Project, and the development work is in progress with the goal of starting shipments in 2014. PNG LNG Project has the full support of the PNG government, and we expect it to contribute to our revenues in the future.

- In December 2008, acquired the PNG LNG Project equity that AGL Energy owned.
- In December 2009, PNG LNG Project was made a final investment decision to proceed with the development.
- In May 2014, PNG LNG Project ships first LNG cargo.

Principal Individual E&P Project Overview (UAE, Qatar ①)

UAE, Qatar | Production | Development



	El Bunduq
Company Holding the Acreages	United Petroleum Development (Bunduq Company Limited)
Partners	JX Nippon Oil & Gas Exploration (45.0%) Cosmo Energy Exploration & Production Co., Ltd. (45.0%) Mitsui Oil Exploration Co., Ltd.(10.0%)
Project Status	Exploration / Development / Production
Interest	100.0%
Operator	Bunduq Company Limited

- In 1970, United petroleum Development acquired a working interest of El Bunduque Oil Field.
- In 1975, oil production commenced in El Bunduq oil field.
- In 1983, oil production was resumed by a secondary recovery scheme using water injection.
- In 2006, El Bunduque achieved a cumulative production volume of 200 million barrels.
- In 2015, United petroleum Development acquired the rest of working interest of El Bunduque Oil Field from BP.

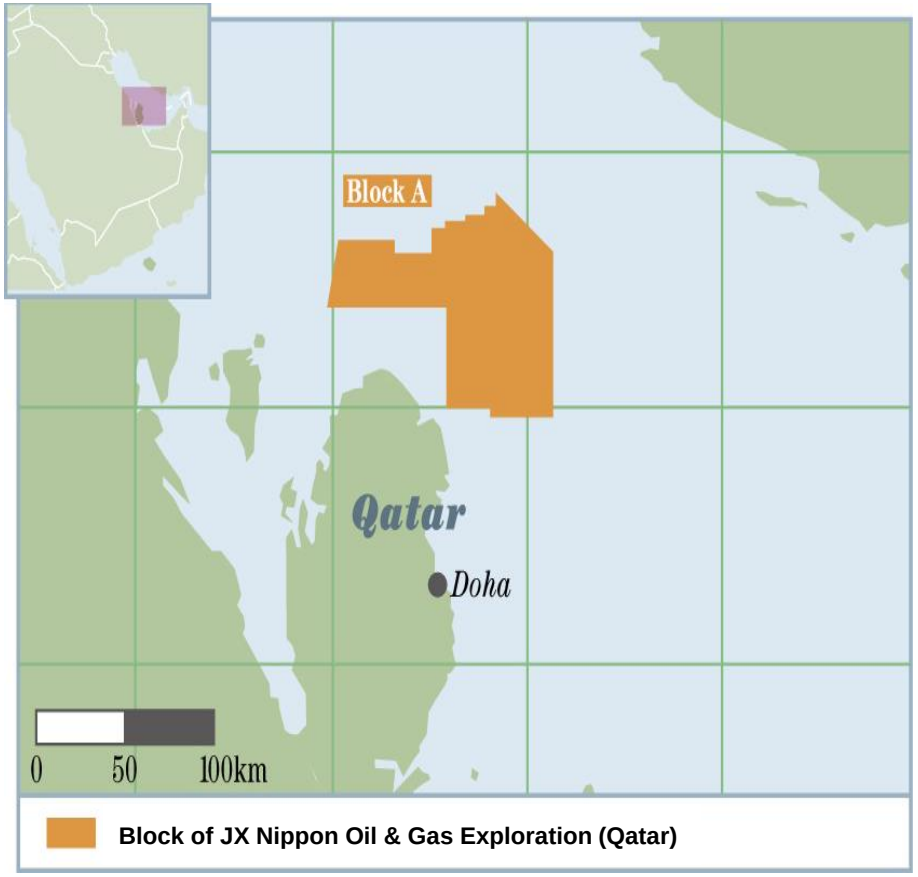
	Mubaraz, Umm Al-Anbar, Neewat Al-Ghalan
Company Holding the Acreages	Abu Dhabi Oil
Partners	JX Nippon Oil & Gas Exploration (32.1%) Cosmo Abu Dhabi Energy Exploration & Production Co., Ltd.(64.2%) Chubu Electric Power Co., Inc.(1.9%) Kansai Electric Power Co., Inc.(1.9%)
Project Status	Exploration / Development / Production
Interest	100.0%
Operator	Abu Dhabi Oil

- In 1967, acquired a working interest in block of Mubarraz.
- In 1973, oil production commenced in Mubarraz Oil Field.
- In 1989, oil production commenced in Umm Al Anbar Oil Field.
- In 1995, oil production commenced in Neewat Al Ghalan Oil Field.
- In2009, 3 fields achieved cumulative production volume of 300 million barrels.
- In 2011, Sign a New Concession Agreement.
- In 2012, Effectuation of New Concession Agreement.

Principal Individual E&P Project Overview (UAE, Qatar ②)

Qatar

Exploration



Project Company
JX Nippon Oil & Gas Exploration (Qatar) Limited (51%)
(%) = JX Group Shareholding

Interest in Individual Fields
100%

Operator
JX Nippon Oil & Gas Exploration (Qatar) Limited

Exploration

- In May 2011, acquired a working interest in Block A (Pre-Khuff), offshore Qatar .
- In March 2012, established interest in Block A (Pre-Khuff), offshore Qatar officially came into effect.
- In November 2015, finished excavating test well No1 and evaluating the test.

JX Group's Reserve Standards

JX Group's criteria for evaluating reserves conforms to the PRMS(Petroleum Resources management System) Standards, drafted by the SPE (Society of Petroleum Engineers), WPC (World Petroleum Congress), AAPG (American Association of Petroleum Geologists), and SPEE (Society of Petroleum Evaluation Engineers).

JX Group's reported reserves are in line with reserves as defined by the PRMS Standards. The degree of certainty of the reserve values is categorized, in order, as either Proved, Probable, or Possible. Following trends common at other industry firms, JX Group's has used Proven and Probable reserves to arrive at its total reserves.

Definition of Proved Reserves:

Reserves judged to have a high level of certainty from analysis of geoscience and production/petroleum engineering data, based on economic conditions, operational methods and laws and regulations assumed by JX Group in light of discovered reservoirs—there is at least a 90% probability that actual recovered volume will equal or exceed estimates of oil and natural gas deposits reasonably evaluated as commercially recoverable.

Definition of Probable Reserves:

There is at least a 50% probability that additional oil and natural gas reserves will equal or exceed actual recovered volume of the total of estimated proved and probable reserves. While these additional reserves are evaluated in the same manner as proved reserves, the probability of recoverability of probable reserves is lower than proved reserves, but higher than possible reserves.

Business Environment and Data
- Metals Business -

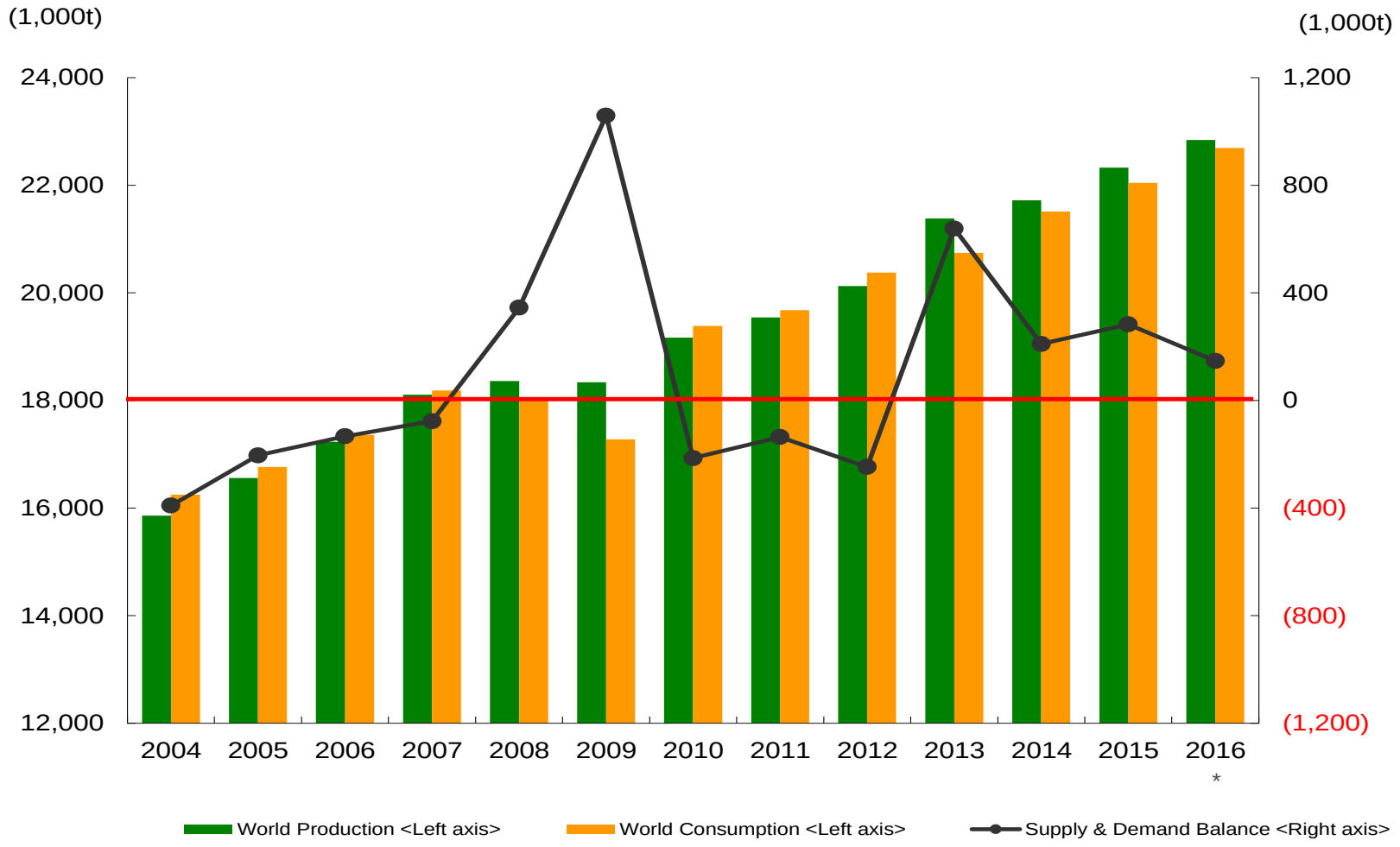
Copper Production of JX Group's Mines

(Thousand Ton)

		2014 1-3Q Jan.-Sep.	2014 Full Jan.-Dec.	2015 (Per Term) Jan.-Mar.	Apr.-Jun.	Jul.-Sep.	Oct.-Dec.	2015 1-3Q *2 Apr.-Dec./Jan.-Sep.
		Actual	Actual	Actual	Actual	Actual	Actual	Actual
Caserones	Copper concentrate	7	19	11	8	9	17	34
	SX-EW copper cathode	18	27	7	7	7	8	22
	Total	26	46	18	14	16	25	56
Los Pelambres	Copper concentrate *1	292	391	79	91	97	97	285
Collahuasi	Copper concentrate *1	324	430	95	102	89		286
	SX-EW copper cathode	16	25	7	7	5		19
	Total	340	455	102	109	94		305
Escondida	Copper concentrate *1	622	830	261	247	160		667
	SX-EW copper cathode	227	302	77	89	72		238
	Total	849	1,132	338	336	232		905

*1 Payable copper contained in concentrate
*2 Due to a change of fiscal term, referring terms are different. Caserones and Los Pelambres: Apr.-Dec., Collahuasi and Escondida: Jan.-Sep.

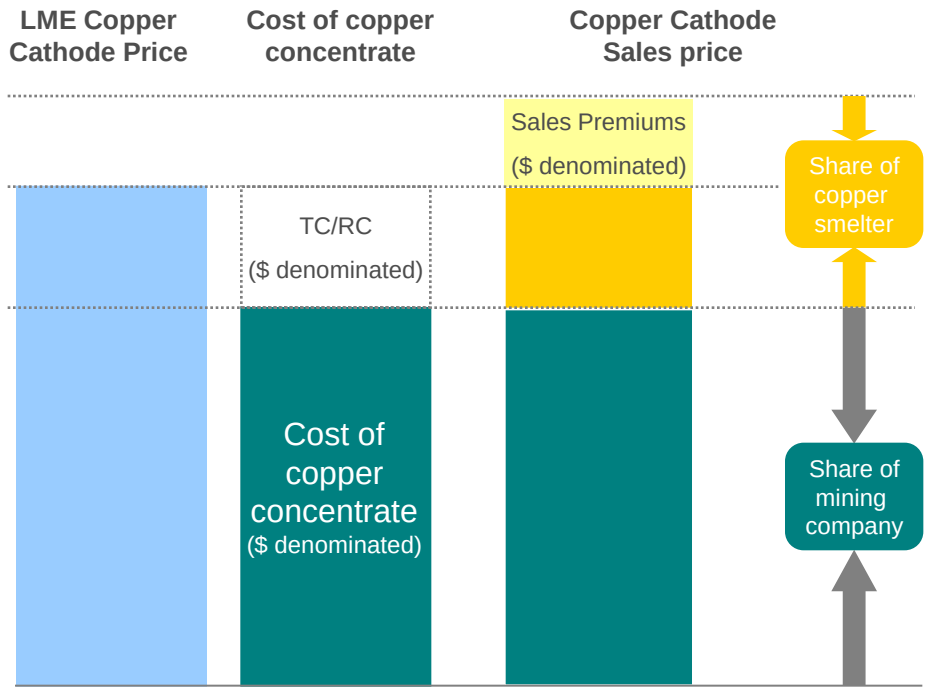
World's Copper Cathodes Supply & Demand



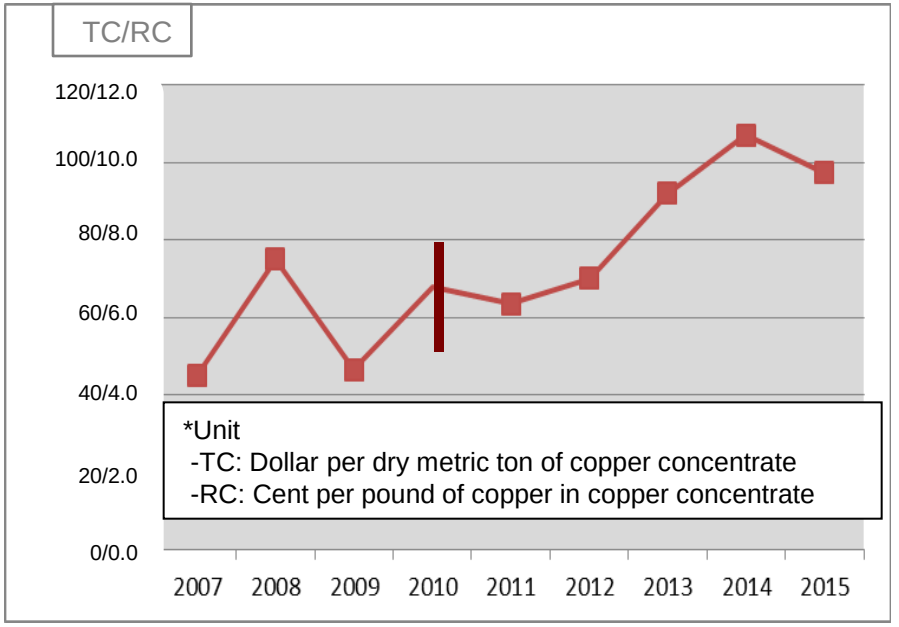
*Forecasts by JX.

Earnings Structure of Copper Smelting and Refining Business

Earnings Structure of Copper Smelter & Refinery



Trends of Base TC/RC (negotiation each year-end)



* For 2010 year-end, several types of agreement have been made depending on negotiating parties, contractual period, etc..

Cost of copper concentrate :

The price of copper concentrate, which custom smelters pay to mining companies, is LME copper cathode price less TC/RC, which is smelting and refining margins. TC/RC under long-term contracts is normally determined through annual negotiation between copper smelters and mining companies.

Copper cathode sales price :

Actual sales price of copper cathode produced by copper smelters is LME price plus sales premium, which is established by reference to various factors including importation costs, qualities and others.

N-Chlo Process

N-Chlo Process

The N-Chlo Process is a new hydro-metallurgical process that we have uniquely developed.

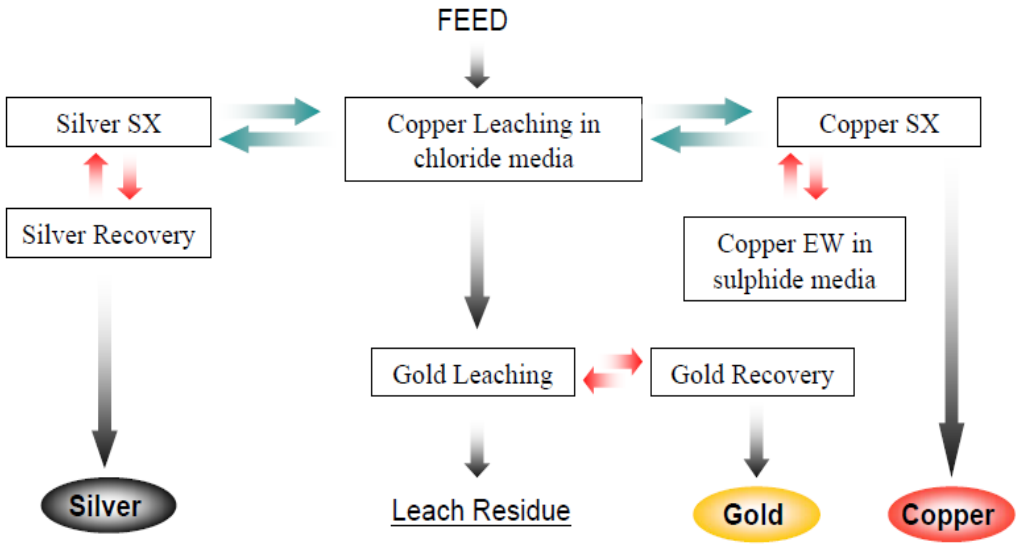
The process enables the effective recovery of not only copper from low-grade copper concentrate, but also such precious metals as gold and silver .

We constructed a pilot plant in Australia and had completed demonstration test FY2013, and we got a good result about copper and gold recovery.

We advance an effort to commercialize the process while searching the mines to apply the process.

Pilot plat in Perth, Australia (About 100t/year Cu recovery)

Structure of N-Chlo Process



Biomining

Biomining

Biomining is a hydro-metallurgical method of extracting copper from copper ores in acidic condition accelerating the extraction by utilizing activity of microorganisms.

Low-grade primary copper sulfide ores have not been used enough as resources without economical recovery process. Biomining technology is mainly applicable to such ores and has great potential in future.

BioSigma S.A. was established in 2002 and started collaborative study of Biomining technology between JX Mining & Metals(33%) and CODELCO (67%).

Taking favorable results of the industrial test conducted at CODELCO's Radmido Tomic mine with low-grade primary copper sulfide ores, commercial application of the technology to the mine was commenced in February, 2015.

Method of Biomining