

Security Code

Tokyo 5020

Supplementary Information

【Full Report】

November 5, 2012



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Main Topics (2012 April - September)



JX Holdings

Jun. Held the Second Ordinary General Meeting of Shareholders.

JX Nippon Oil & Energy

May. Power Carbon Technology Co., Ltd., completed the construction of a plant for manufacturing anode materials for lithium-ion batteries.

Jun. Started Joint Venture to produce paraxylene with SK group of South Korea.

Jul. Failure found in the safety test performed under the High Pressure Gas Safety Act at the Mizushima B Refinery.

Aug. Decided to start Mega Solar Power Plants from Jan. 2013 at Sendai Refinery and Kudamatsu Terminal.

Aug. Decided to establish of a company that makes and sells lubricant in Vietnam.

Sep. Unified the type of Residential-Use Fuel Cell (ENE • FARM) to Solid Oxide Fuel Cell (SOFC).

Sep. Started Joint Venture to produce lubricant Base Oil with SK group of South Korea from Oct. 2012.

JX Nippon Oil & Gas Exploration

Jun. Decided to drill "METI Kisoshisui" well in Spring 2013 at South West Offshore of Sado Island, Niigata Pref.

Aug. Exchange of Pierce field and Kinnoull field in UKNorth Sea.

Sep. Participates in Block M-11, Offshore Myanmar.

JX Nippon Mining & Metals

Apr. Completed facilities for recover rare metals from used lithium-ion batteries.

Jun. Confirmed fumarolic gas from survey well that was drilled for the purpose of geothermal development in the Toyoha,.

Sep. Integration and Reorganization of the JX Nippon Mining & Metals Group Precision Fabricated Products Business.

Sep. Acquires Equity Interest in a Copper/Gold Exploration Project in Chile and Argentina.

Sep. Completion of New Cathode Materials Production Facility for Automotive Lithium-Ion Batteries .

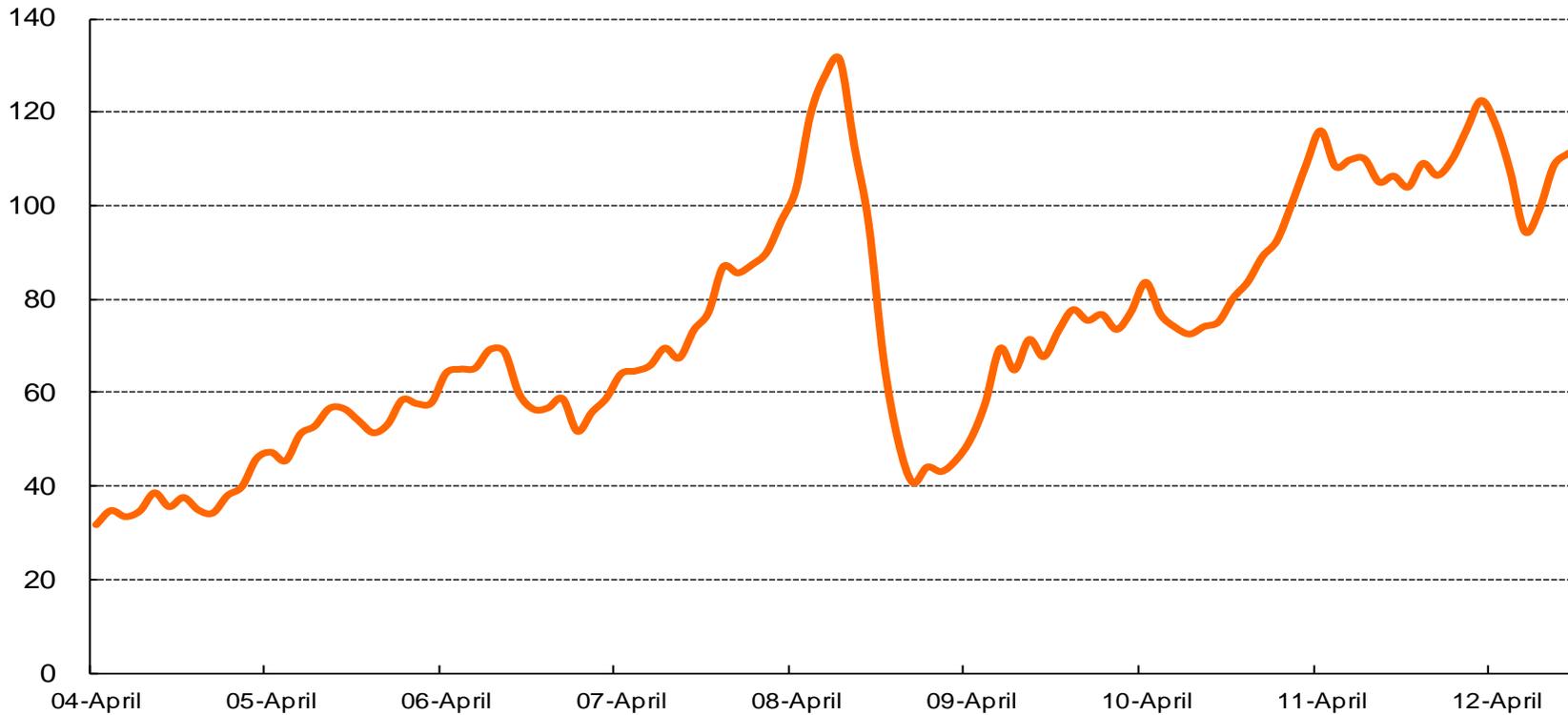
Historical Dubai Crude Oil Price



(\$/bbl)

Average Price	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	
									1Q	2Q
Dubai Crude Oil	37	54	61	77	82	70	84	110	106	106

(\$/bbl)



Develop the most competitive refining and marketing structure in Japan



✓ Capacity Reduction Plan

➤ JX Group Capacity Reduction Plan

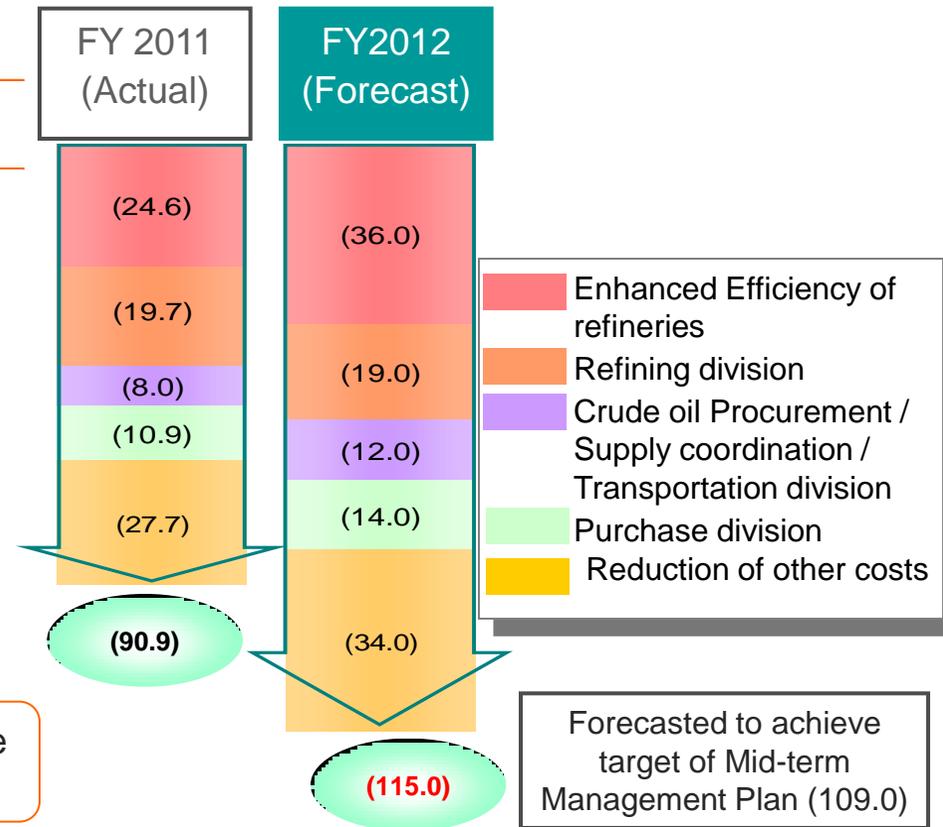
	Due Date	Reduction Capacity	Completion
STEP1	October, 2010	(400) thousand B/D	<input checked="" type="checkbox"/>
STEP2	March, 2014	(180) thousand B/D	<input type="checkbox"/> Reform Muroran Refinery into petrochemical plant

➤ Capacity Reduction Plans of other companies

Company	Due Date	Reduction Capacity	Completion
Fuji Oil	Oct. 2010	(52) thousand B/D	<input checked="" type="checkbox"/>
Showa Shell	Sep. 2011	(120) thousand B/D	<input checked="" type="checkbox"/>
Cosmo Oil	Jul. 2013	(140) thousand B/D	<input type="checkbox"/>
Idemitsu	Mar. 2014	(120) thousand B/D	<input type="checkbox"/>

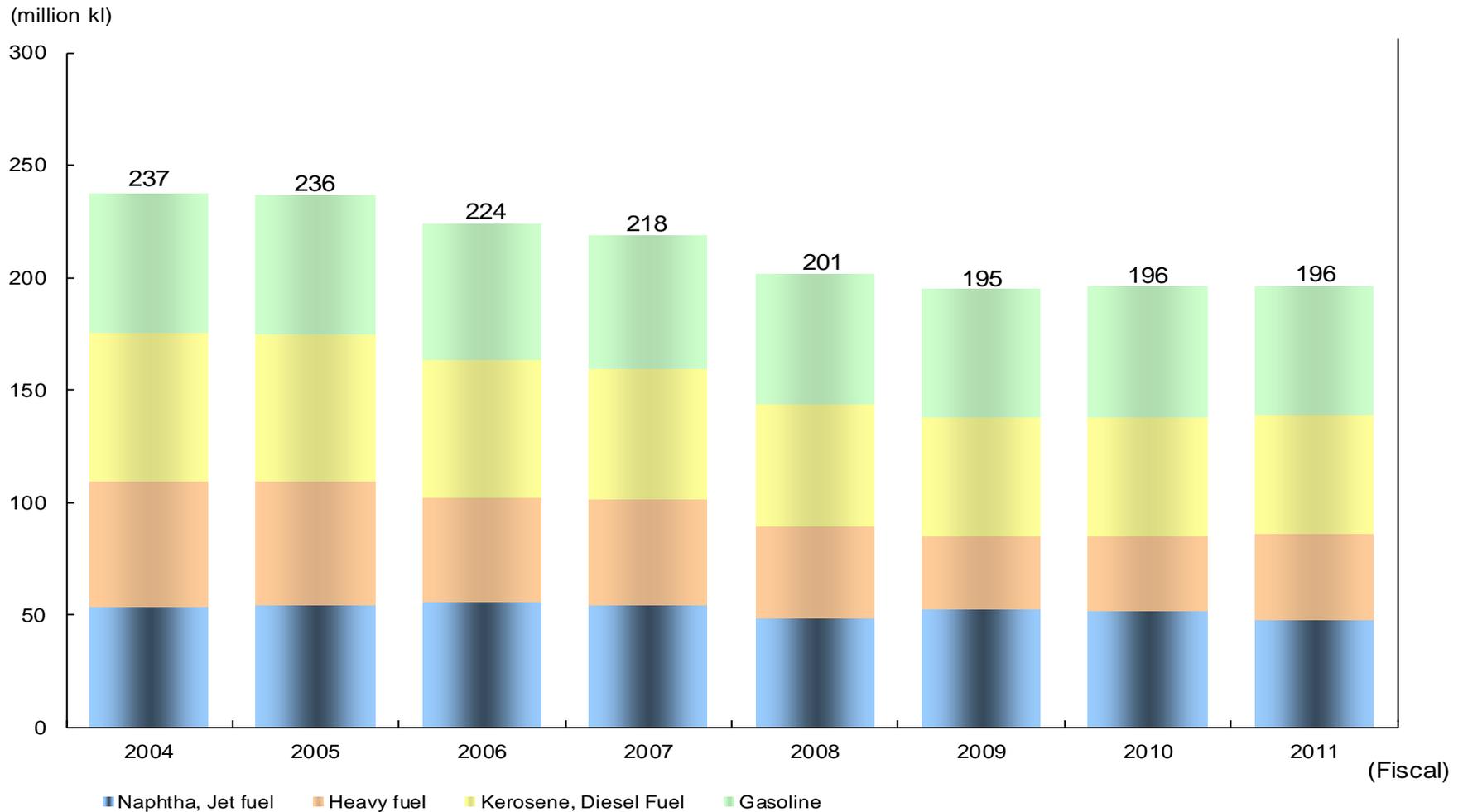
Respond to Act on the Sophistication of Energy Supply Structure (deadline : Mar. 2014)

✓ Integration Synergies and Enhanced Efficiency of Refineries



(billion yen; Changes vs. 2009FY)

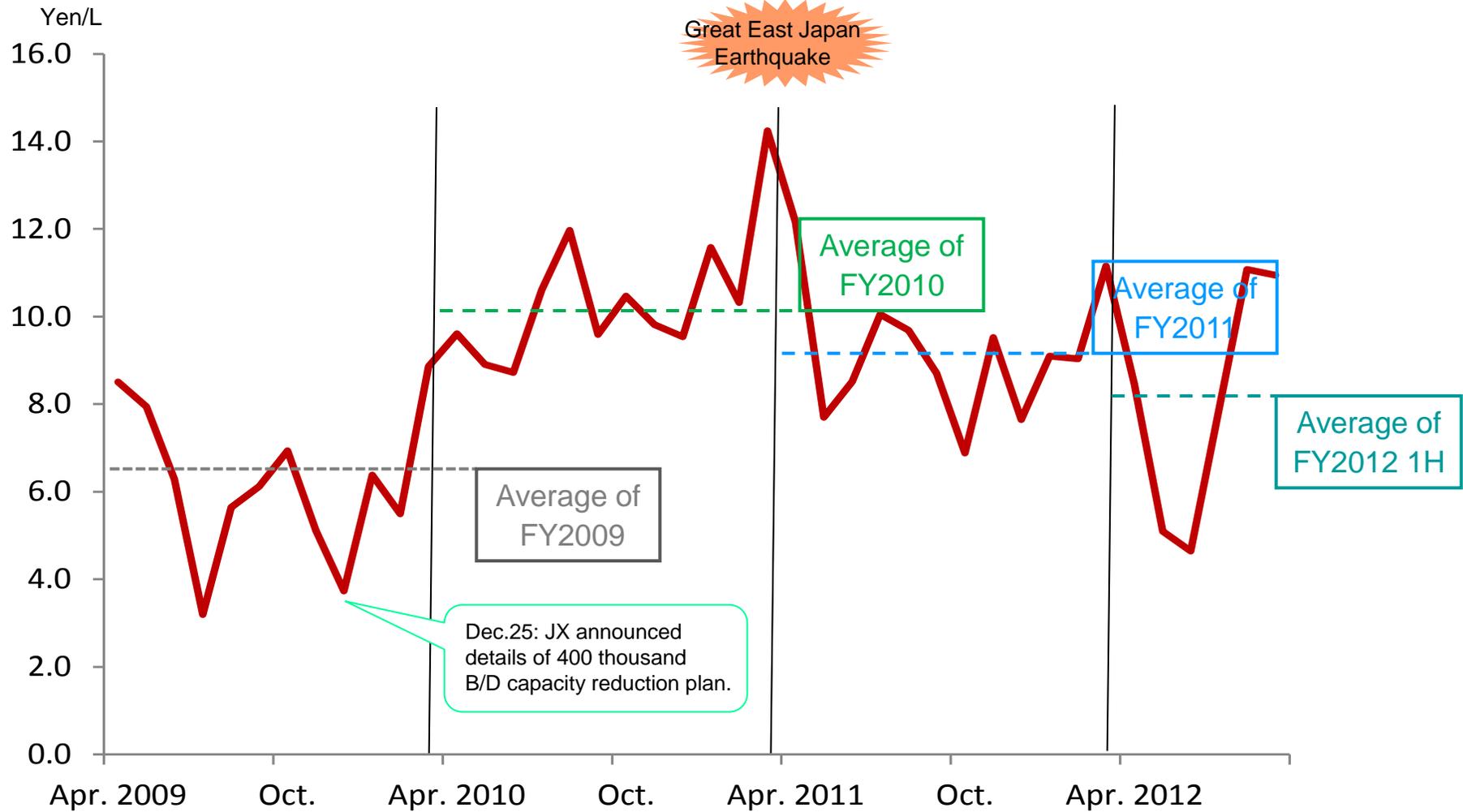
Demand for Petroleum Products (Japan)



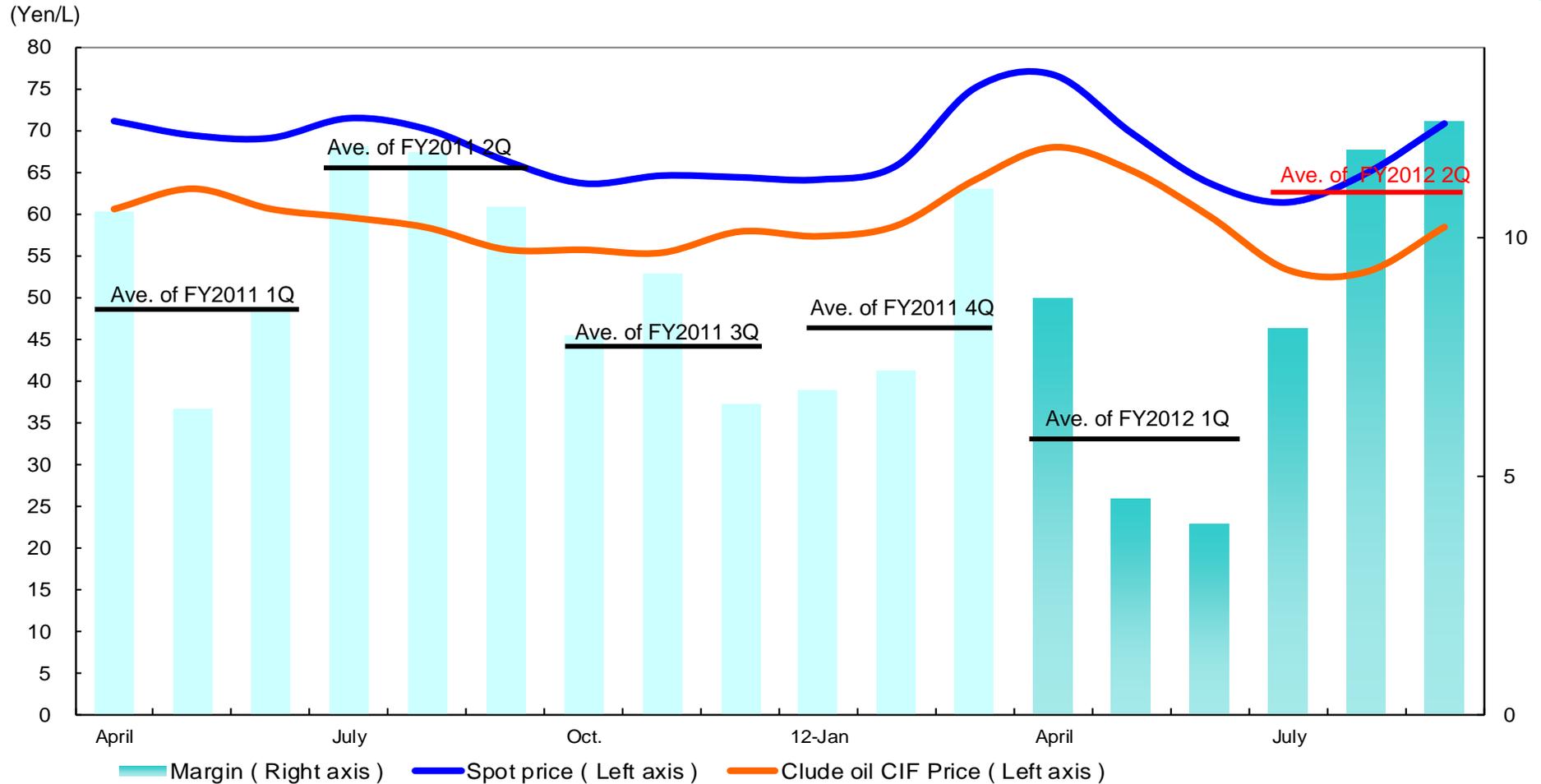
Note: Excluding Crude Oil for electric power plants.

Source: Petroleum Association of Japan and Company data

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



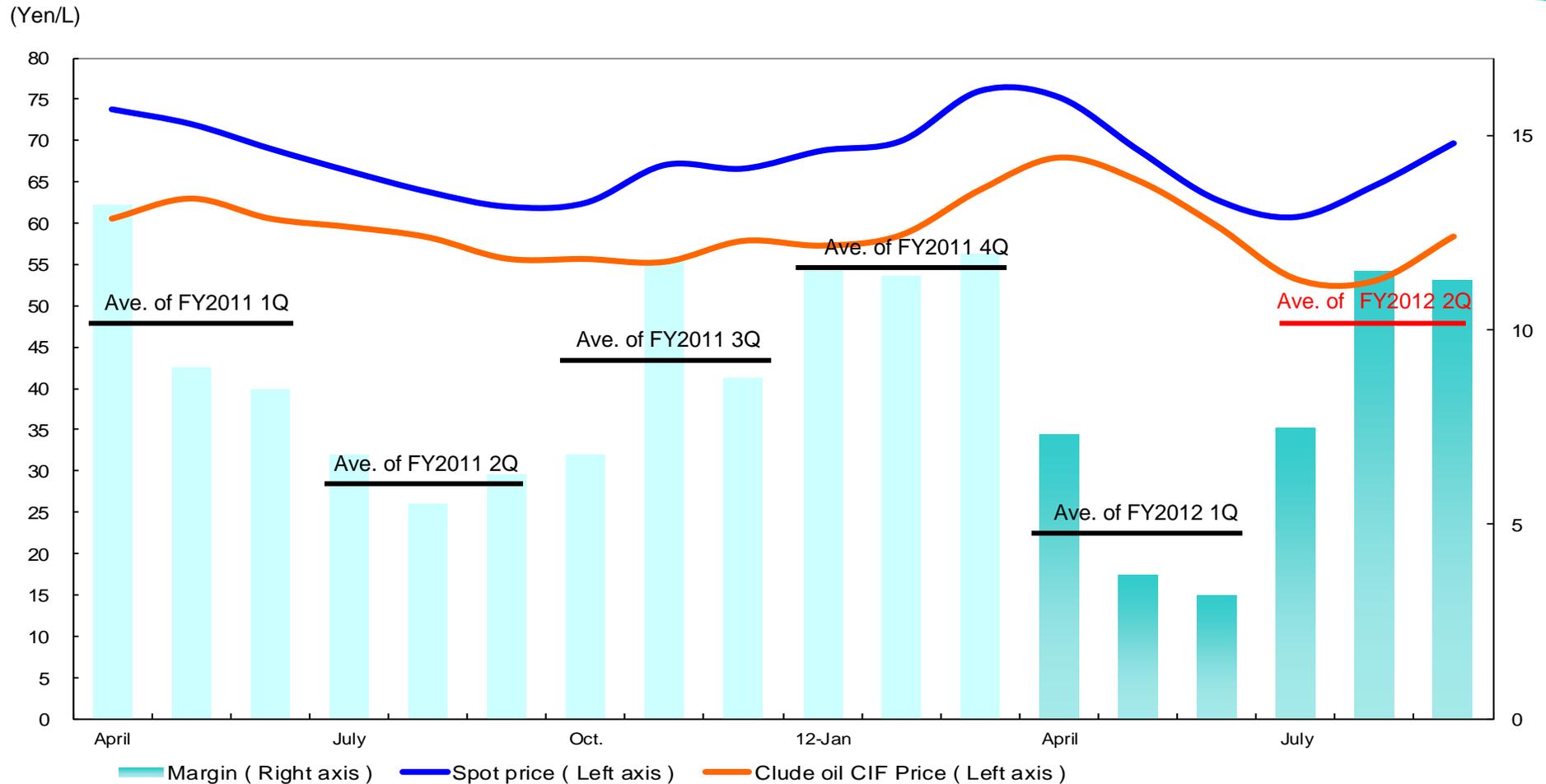
Domestic Market Margin* (Gasoline)



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

Source : Trade statistics (Ministry of Finance, Japan)

Domestic Market Margin* (Kerosene)



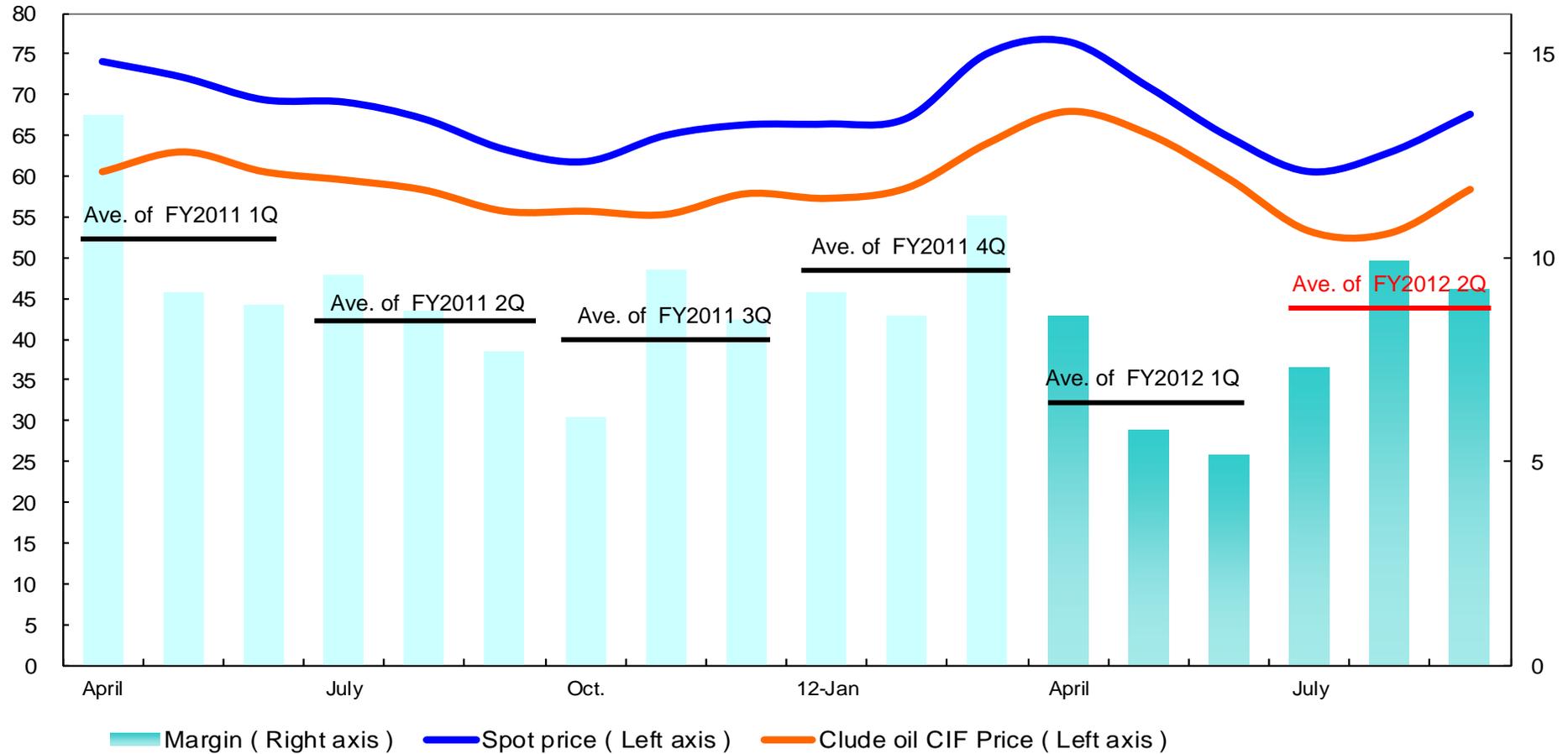
* : Margin = Spot Price – All Japan Crude Oil CIF (including petroleum tax and interest)

Source : Trade statistics (Ministry of Finance, Japan)

Domestic Market Margin* (Diesel Fuel)



(Yen/L)



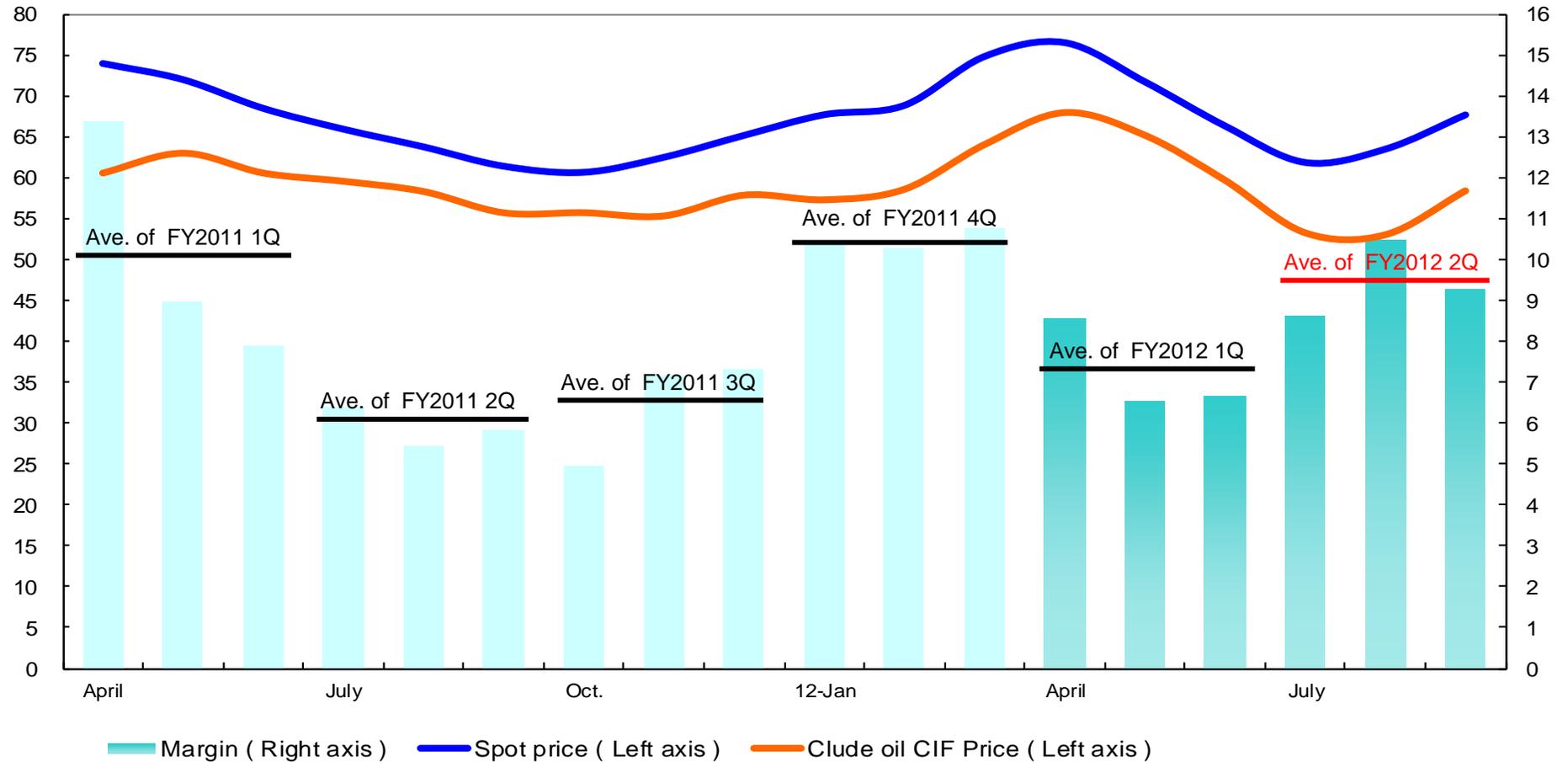
* : Margin = Spot Price – All Japan Crude Oil CIF (including petroleum tax and interest)

Source : Trade statistics (Ministry of Finance, Japan)

Domestic Market Margin* (Fuel Oil A)



(Yen/L)



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

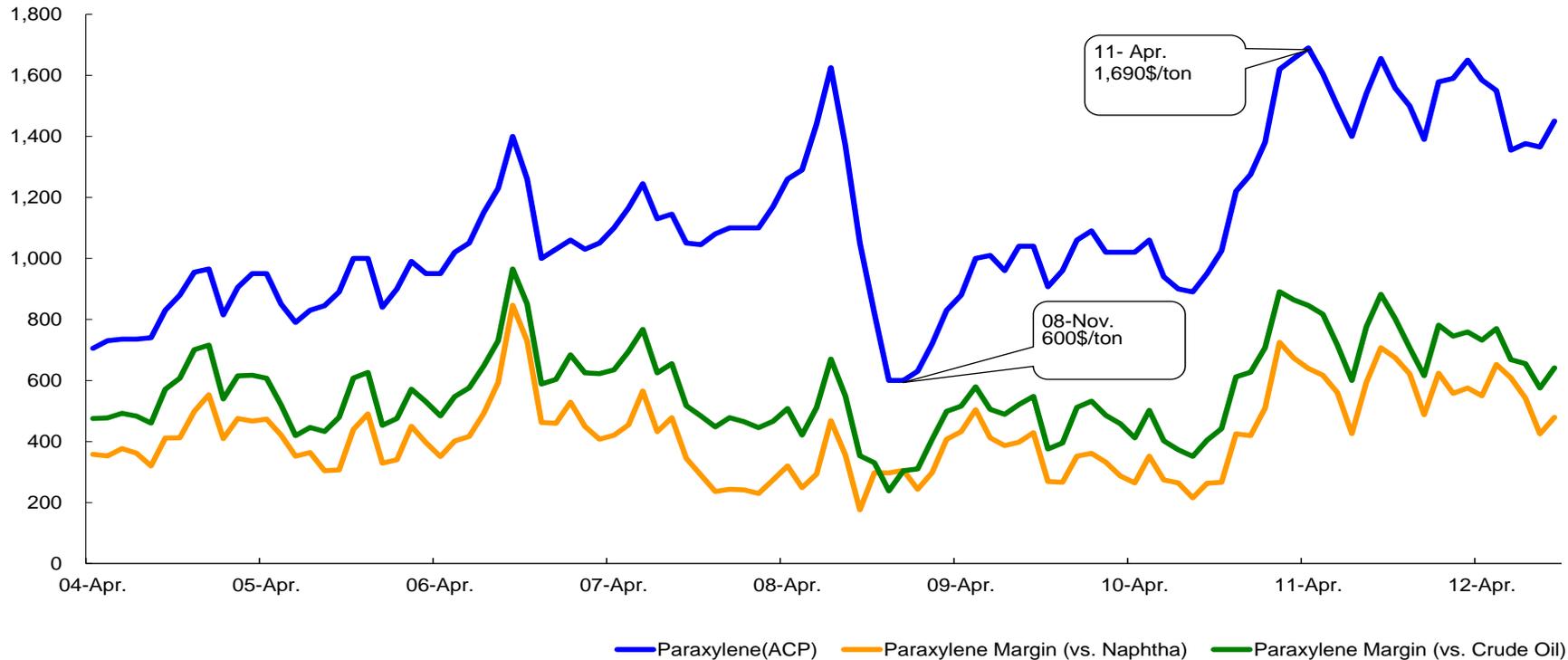
Source : Trade statistics (Ministry of Finance, Japan)

Paraxylene Price and Margin (vs. Crude Oil, vs. Naphtha)



Average Price	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	
									1Q	2Q
Asian Contract Price	829	903	1,103	1,119	1,020	999	1,162	1,555	1,497	1,397
Margin (vs. Crude Oil)	563	514	660	556	425	493	550	754	723	624
Margin (vs. Naphtha)	416	389	511	351	309	369	388	585	604	482

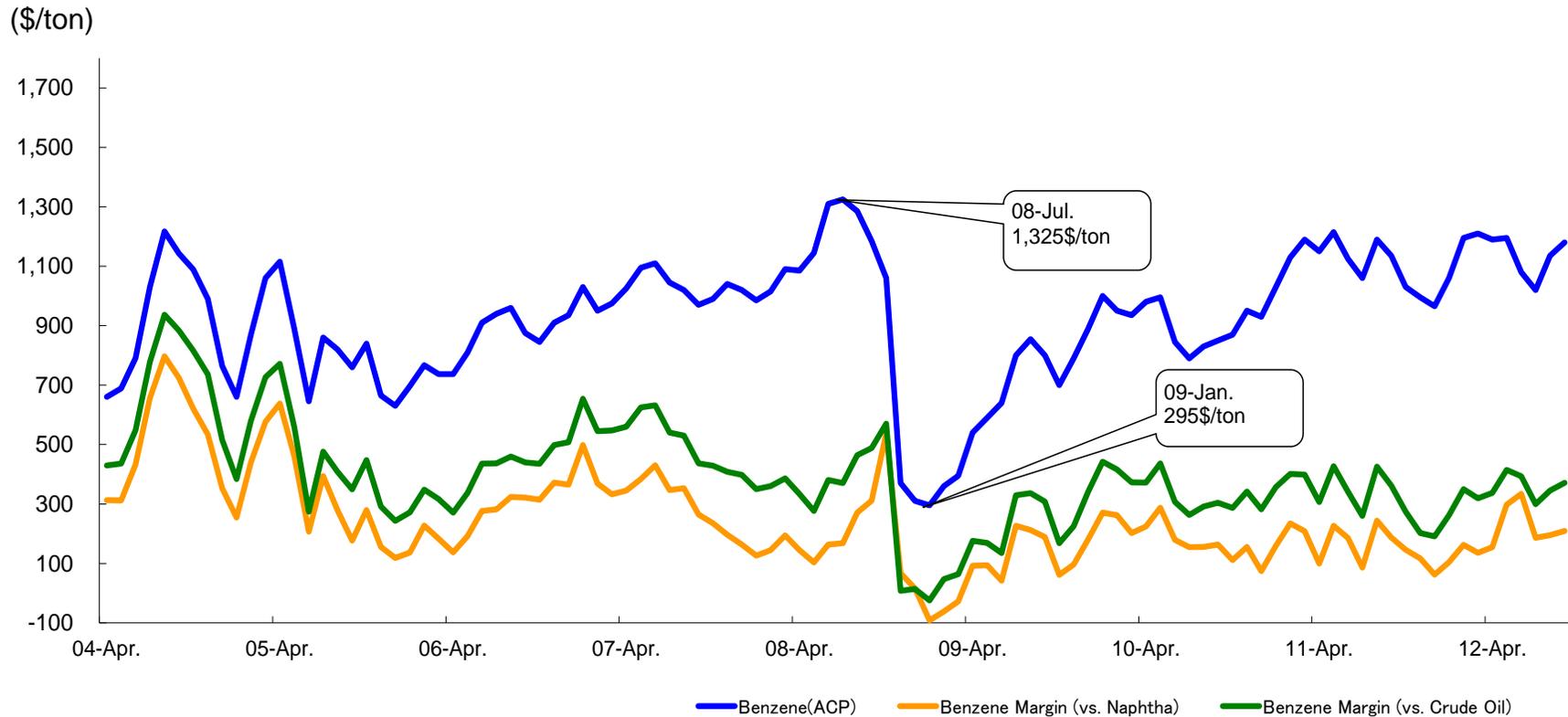
(\$/ton)



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

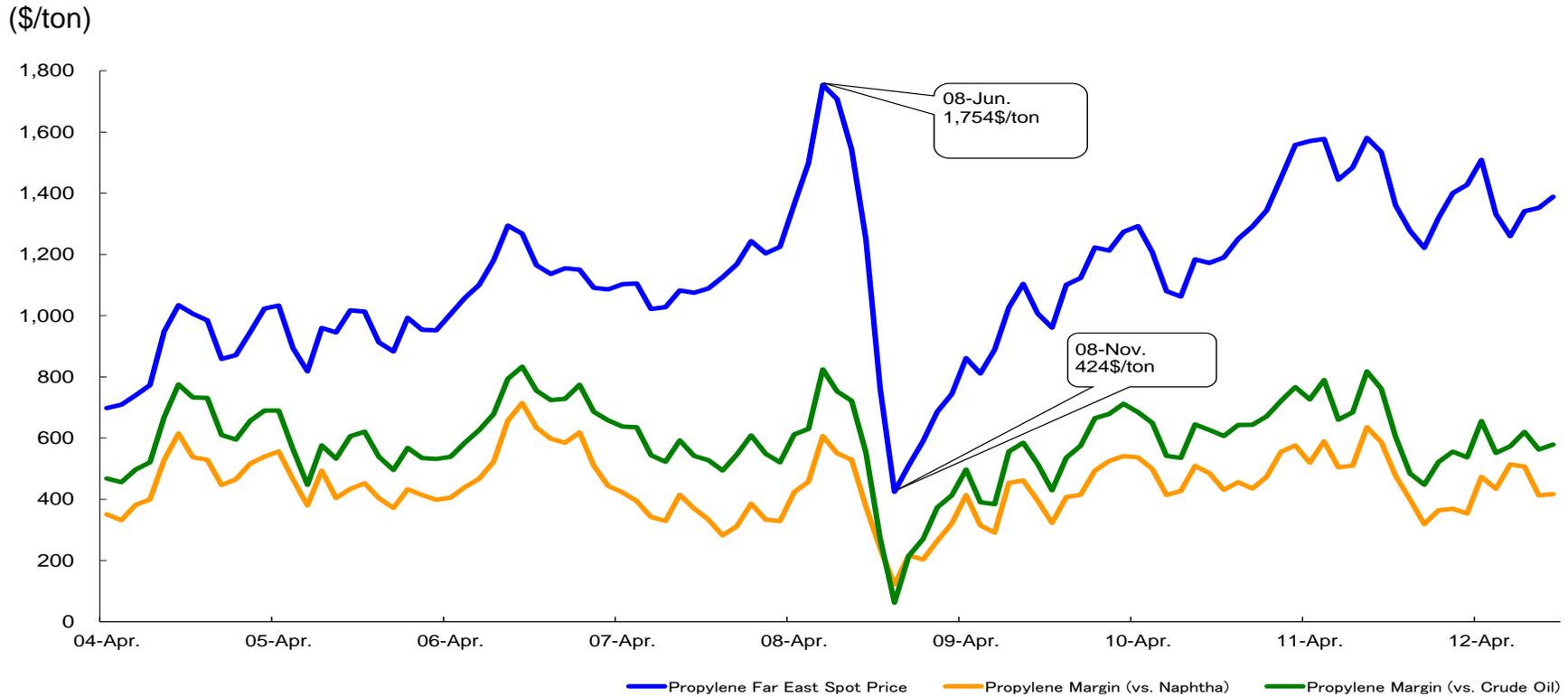
Benzene Price and Margin (vs. Crude Oil, vs. Naphtha)

Average Price	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	
									1Q	2Q
Asian Contract Price	914	786	907	1,034	844	791	948	1,111	1,155	1,112
Margin (vs. Crude Oil)	648	397	464	471	249	285	336	310	382	338
Margin (vs. Naphtha)	501	271	315	265	133	161	174	146	262	197



Propylene Price and Margin (vs. Crude Oil, vs. Naphtha)

Average Price	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	
									1Q	2Q
Far East Spot Price	883	948	1,138	1,123	1,070	1,050	1,258	1,433	1,367	1,361
Margin (vs. Crude Oil)	617	559	695	563	475	544	646	633	594	587
Margin (vs. Naphtha)	470	434	550	354	359	420	484	469	474	446



Sales Volume of FY 2011 1H, FY2012 1H



	FY2011 1H	FY2012 1H	Changes vs. FY 2011
	million KL	million KL	
Gasoline	9.72	9.63	-0.9%
Premium	1.30	1.23	-5.6%
Regular	8.36	8.34	-0.3%
Naphtha	1.57	1.91	21.7%
JET	0.66	0.75	13.8%
Kerosene	1.70	1.54	-9.4%
Diesel Fuel	5.91	6.05	2.4%
Fuel Oil A	2.67	2.58	-3.4%
Heavy Fuel Oil C	3.62	5.22	44.1%
For Electric Power	2.24	3.88	73.2%
For General Use	1.38	1.34	-2.9%
Total Domestic Fuel	25.85	27.67	7.0%
Crude Oil	1.63	2.52	54.6%
Lubricants & Specialities	1.55	1.56	0.5%
Petrochemicals (million ton)	2.59	2.69	3.9%
Exported Fuel	4.32	5.42	25.5%
LPG (million ton)	0.12	0.13	14.7%
Coal (million ton)	2.49	3.12	25.2%
Total Excluding Barter Trade & Others	38.54	43.11	11.9%
Barter Trade & Others	10.54	8.86	-15.9%
Total	49.08	51.97	5.9%

Number of Service Stations (Fixed-Type)

(As of the end of fiscal years / period)

	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12 1H
JX Group	14,640	14,076	13,474	13,318	12,687	12,149	11,730	11,645
EMG *1	5,837	5,426	4,911	4,489	4,199	3,979	3,773	3,609
Idemitsu Kosan	5,249	5,059	4,808	4,598	4,338	4,148	3,997	3,962 *5
Showa Shell Sekiyu	4,689	4,560	4,417	4,256	4,102	3,922	3,760	3,675
Cosmo Oil	4,552	4,359	4,188	3,913	3,768	3,609	3,498	3,390
Others *2	2,066	2,006	1,935	1,257	1,245	1,194	1,160	1,164
Oil Companies	37,033 (79.8%)	35,486 (79.4%)	33,733 (78.4%)	31,831 (77.4%)	30,339 (76.8%)	29,001 (76.5%)	27,918 (75.7%)	27,445 (75.6%)
Private Brands and Others *3	9,367 (20.2%)	9,214 (20.6%)	9,267 (21.6%)	9,269 (22.6%)	9,161 (23.2%)	8,899 (23.5%)	8,982 (24.3%)	8,855 (24.4%)
Total *3	46,400	44,700	43,000	41,100	39,500	37,900	36,900	36,300

<Number of Company-Owned Service Stations>

	FY09	FY10	FY11	FY12 1H
JX Group	2,893	2,701	2,573	2,525

<Number of Self-Service Stations>

	FY09	FY10	FY11	FY12 1H
JX Group	2,378	2,385	2,423	2,468
Total for Japan *4	6,906	6,935	7,001	7,052*5

Notes: *1. Figures are total of Esso, Mobil and Tonen General Sekiyu.

*2. Figures are total of Kyushu Oil, Taiyo Petroleum, Mitsui Oil & Gas and Kygnus Sekiyu (until FY 2007). After FY 2008, Figures are total of Taiyo, Mitsui and Kygnus.

*3. Estimated by JX Holdings.

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

*5. Data of Idemitsu Kosan are as of the end of June 2012.

JX Group's Market Share and Demand in Japan

Historical CDU^{*1} Utilization Rate



Domestic Market Share

	FY11 1H (%)	FY12 1H (%)
a) Gasoline	33.9	33.6
b) Kerosene	41.7	39.2
c) Diesel Fuel	37.1	37.0
d) Fuel Oil A	43.9	43.7
a+b+c+d	36.6	36.1
Total Domestic Fuel ^{*2}	34.8	35.9

Domestic Demand

	FY11 1H (1,000 KL)	FY12 1H (1,000 KL)	Changes vs. FY11 (%)
a) Gasoline	28,690	28,662	99.9
b) Kerosene	4,575	4,460	97.5
c) Diesel Fuel	15,962	16,353	102.5
d) Fuel Oil A	6,069	5,898	97.2
a+b+c+d	55,295	55,373	100.1
Total Domestic Fuel ^{*2}	88,968	92,165	103.6

CDU^{*1} Utilization Rate (Excluding the impact of periodic repair and earthquake)

	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12 1H
	('04/4-'05/3)	('05/4-'06/3)	('06/4-'07/3)	('07/4-'08/3)	('08/4-'09/3)	('09/4-'10/3)	('10/4-'11/3)	('11/4-'12/3)	('12/4-'12/9)
JX Group ^{*3}	94%	93%	91%	89%	85%	78%	86%	88%	86%

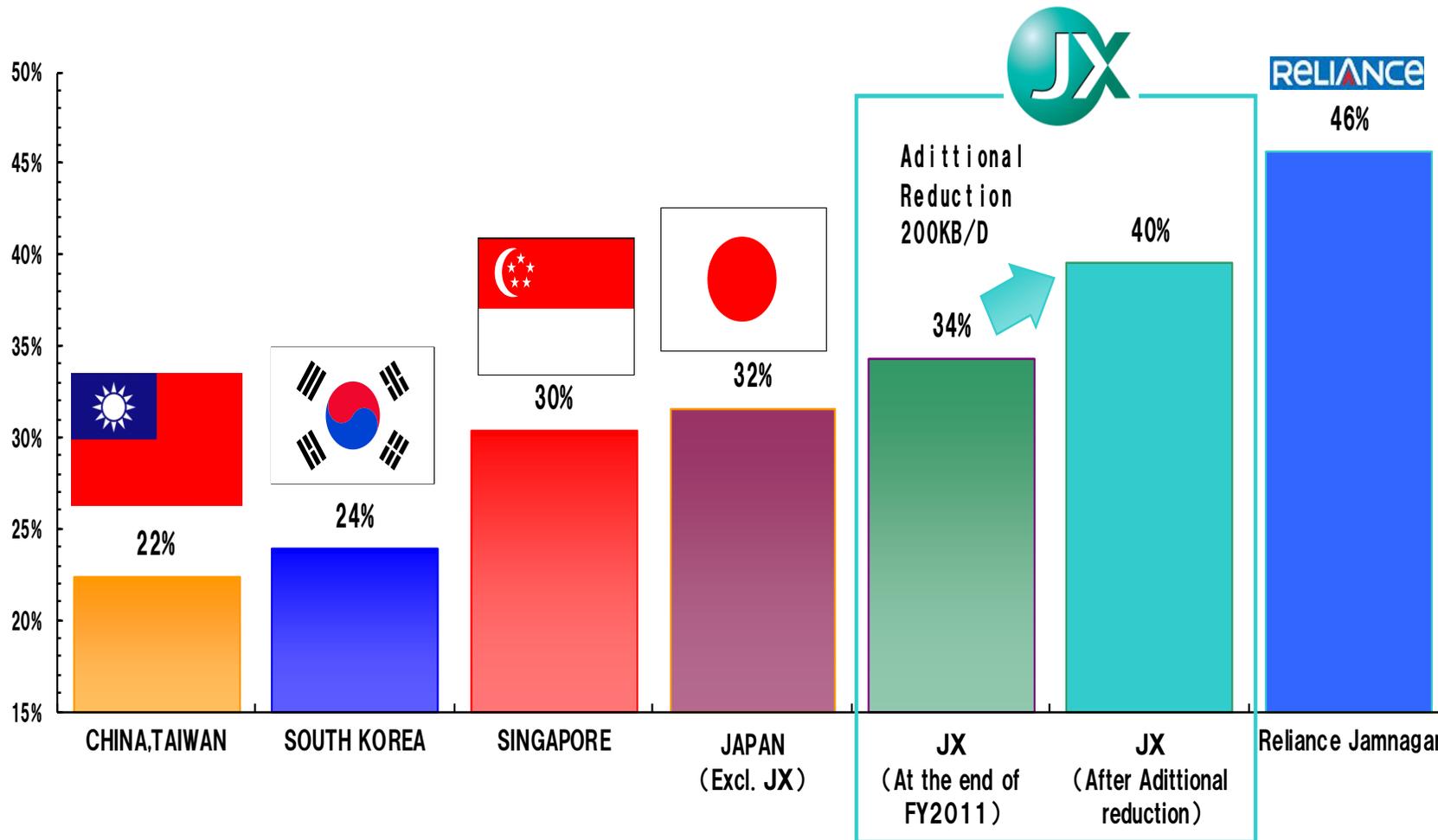
* 1. Crude Distillation Unit

* 2. Excluding Crude Oil for electric power plants.

* 3. Excluding Condensate splitters of Mizushima and Kashima.

Source: Petroleum Association of Japan and Company data

Equipment Ratio of Secondary Unit* Against CDU



Note*: Catalytic cracking unit, Catalytic hydrocracking unit, Thermal operation unit, Solvent De-asphalting unit, Independent power producer unit
 Source: Oil & Gas journal, Petroleum Association of Japan and Company data

Enhance Overseas Business to meet increasing demand in Asia

✓ Paraxylene

- Established joint venture for 1MT/y paraxylene with SK group of South Korea (Jun. 2012)



✓ Lubricants

- Established lubricants marketing company in Dubai (Jul. 2011)
- Started operation lubricants manufacturing plant in Indonesia (Apr. 2012)
- Started joint venture business for lubricants base oil with SK group of South Korea (Oct. 2012)



✓ Coal

- Acquired stock of Indonesian company which has coal mine property (June 2011)
- Acquired metallurgical coal mine property in Canada from Xstrata Group (Mar. 2012)

Develop new energy businesses

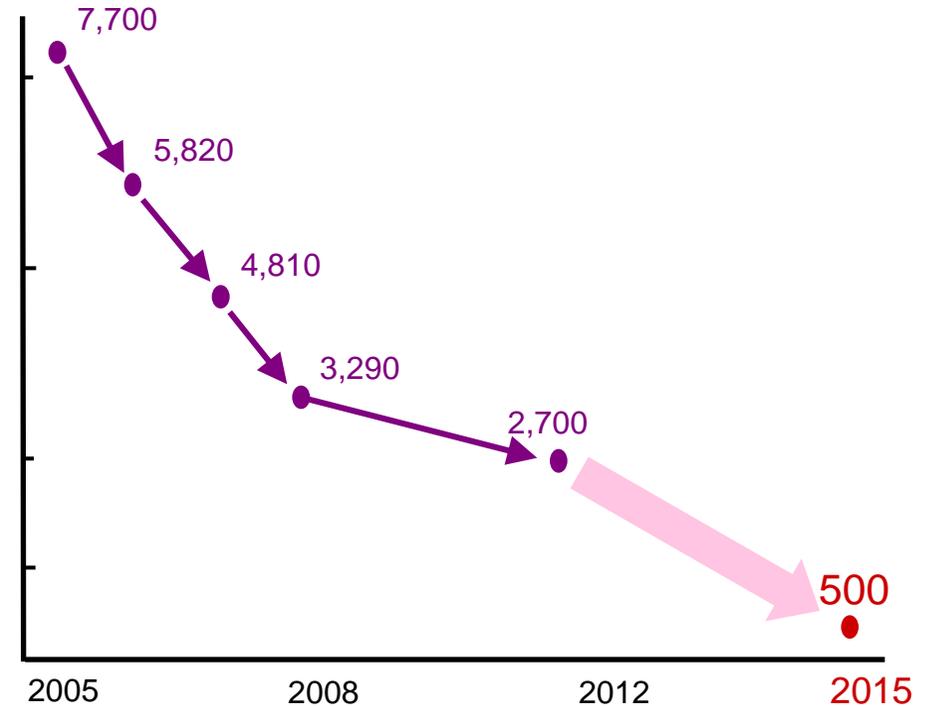
✓ Fuel Cell

- Launched Solid Oxide Fuel Cell(SOFC) system which is smaller and has higher electrical efficiency compared to conventional one (Oct. 2011)
- Increasing sales volume by high attention to new energy after the earthquake



Cost Down Target of ENE·FARM

(thousand yen / Unit)



*1 Using energy of thermal power generation and boiler

*2 In case of 100% output

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.



Outline of Oil and Natural Gas E&P Projects

Project Name/Company	Sales Volume(Jan.-Jun. 2012) (1,000BOED) *1			Reserves *2 (million BOE)	Reserves*3 (million BOE)
		Oil	Gas		
[Gulf of Mexico(U.S.A.)] JX Nippon Oil Exploration U.S.A. Limited	4	3	1	25	27
[Canada] Japan Canada Oil Company Limited	13	13	–	251	253
[North Sea, U.K.] JX Nippon Exploration and Production (U.K). Limited	8	6	2	47	20
[Vietnam] Japan Vietnam Petroleum Company, Limited	8	6	2		
[Myanmar] Nippon Oil Exploration (Myanmar) Limited	9	1	8		
[Malaysia] JX Nippon Oil & Gas Exploration (Malaysia) Limited	22	4	18		
JX Nippon Oil & Gas Exploration (Sarawak) Limited	18	2	16		
[Indonesia] Nippon Oil Exploration (Berau) Limited	22	1	21	<Sub Total> 259	<Sub Total> 319
[Papua New Guinea] Merlin Southern Highlands Petroleum Co., Ltd.	6	6	–		
[Australia] JX Nippon Oil & Gas Exploration (Australia) Pty Ltd.	1	1	–	<Sub Total> 99	<Sub Total> 87
[United Arab Emirates, Qatar and others] Abudhabi Oil Co., Ltd., United Petroleum Development Co., Ltd. and others *4	10	10	0	69	69
Total	121	53	68	749	775

*1 Project company basis.

*2 Proved reserves and probable reserves as of end of Dec., 2011, including reserves from projects currently under development.

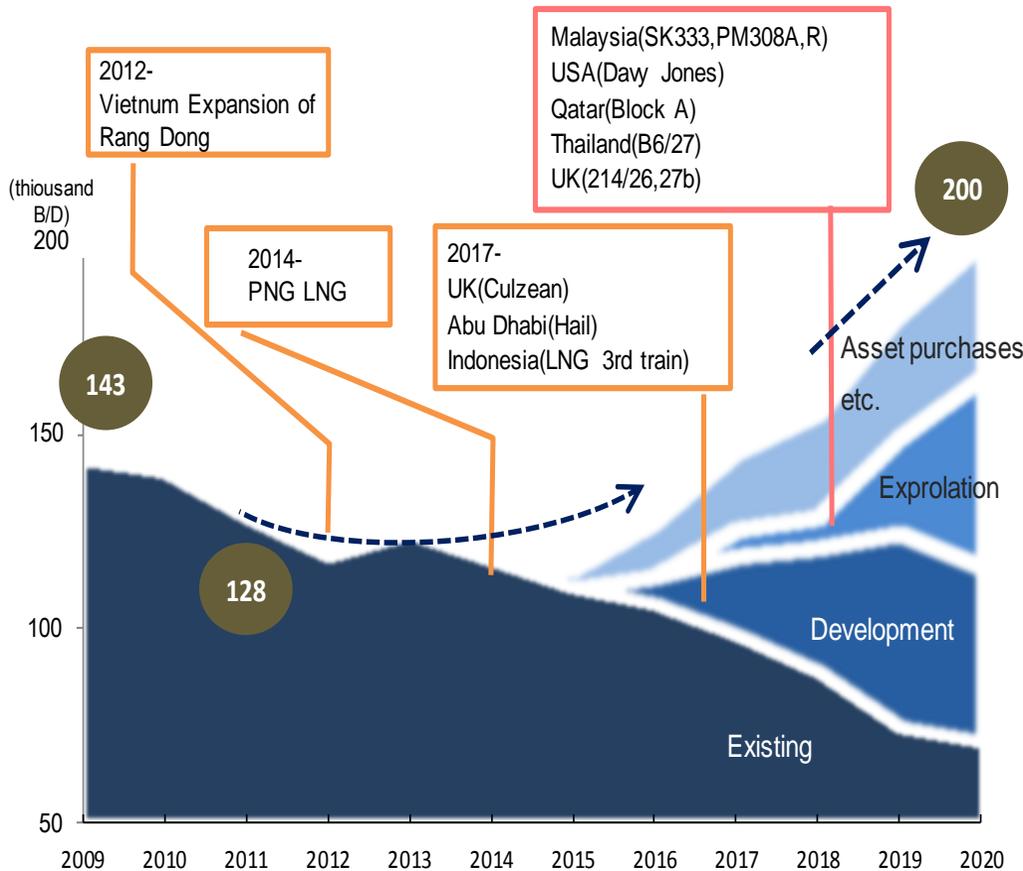
*3 Proved reserves and probable reserves as of end of Dec., 2010, including reserves from projects currently under development.

*4 JX Group's equity basis



Maintain and expand production volume over the medium/long term

(Production Plan)



(Latest Results)

Country (Block)	Type	Acquisition of rights	Discovery of oil and gas strata	Extent of strata confirmed	Success of flow test	Renewed rights to oil fields in production
Oct. 2010	U.K.	●				
Jan. 2011	Vietnam(16-2) Natural Gas		●			
Feb. 2011	UAE Crude oil	●				●
	U.S.(Davy Jones) Natural gas			●		
	Vietnam(05-1b) Crude oil/Natural gas		●			
Mar. 2011	U.K.(Culzean) Natural gas			●		
Apr. 2011	Australia(WA-290-P) Natural gas		●			
	Papua New Guinea(PPL219) Crude oil		●			
May 2011	Qatar (Block A) Natural gas	●				
	Australia(WA-191-P) Crude oil		●			
Jul. 2011	Vietnam (101-100/04) Crude oil	●				
Jan. 2012	Malaysia (Deepwater Block R) Crude oil	●				
Mar. 2012	U.S.(Davy Jones) Natural gas				●	
Sep. 2012	Myanmar(M-11) Natural gas	●				

Jan. 2012 Made decision of development

Principal Individual E&P Project Overview ①



Gulf of Mexico ①

Production



● Main assets

Project Company

JX Nippon Oil Exploration (U.S.A.) Limited. (JX NOEX USA)
 (100%)
 (%) = JX Group Shareholding

Range Of Interests in Individual Fields

11.6% to 62.5%

Operators

Anadarko, Hilcorp Energy, others

Production

Mining Area during the production

K2, Orchard North, MP140, ST179, WC265/266

12 Jan – Jun Sales Volume

4,100 boed

(oil: 2,800 b/d, gas: 7.8mmcf/d)

- 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.
- In September 2010, sold some assets of shallow water and deep water area.

Principal Individual E&P Project Overview ②



Gulf of Mexico ② Davy Jones

Exploration

**Project Company**

JX Nippon Oil Exploration (Gulf) Limited.
 (100%)
 (%) = JX Group Shareholding

Range Of Interests in Individual Fields

12%

Operators

McMoRan Oil & Gas LLC

Exploration

- In August 2009, started Exploration.
- In January 2010, made a gas discovery.
- In January 2010, made a gas discovery.
- In February 2011, confirmed the spread of hydrocarbon on **Davy Jones Prospect**.
- In March 2012, confirmed natural gas flow.

Principal Individual E&P Project Overview ③



Canada

Production



Project Company

Japan Canada Oil Co., Ltd. (100%)
(%) = JX Group Shareholding

Interest in Individual Fields

5%

Operator

Syncrude Canada

Production

'12 Jan – Jun Sales Volume

13,300 BOED

(Oil 13,300 b/d)

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

Oil Pipelines

Blocks of Mocal Energy *

* Mocal Energy is a local subsidiary funded 100% by Japan Canada Oil, a Japanese company

Principal Individual E&P Project Overview ④

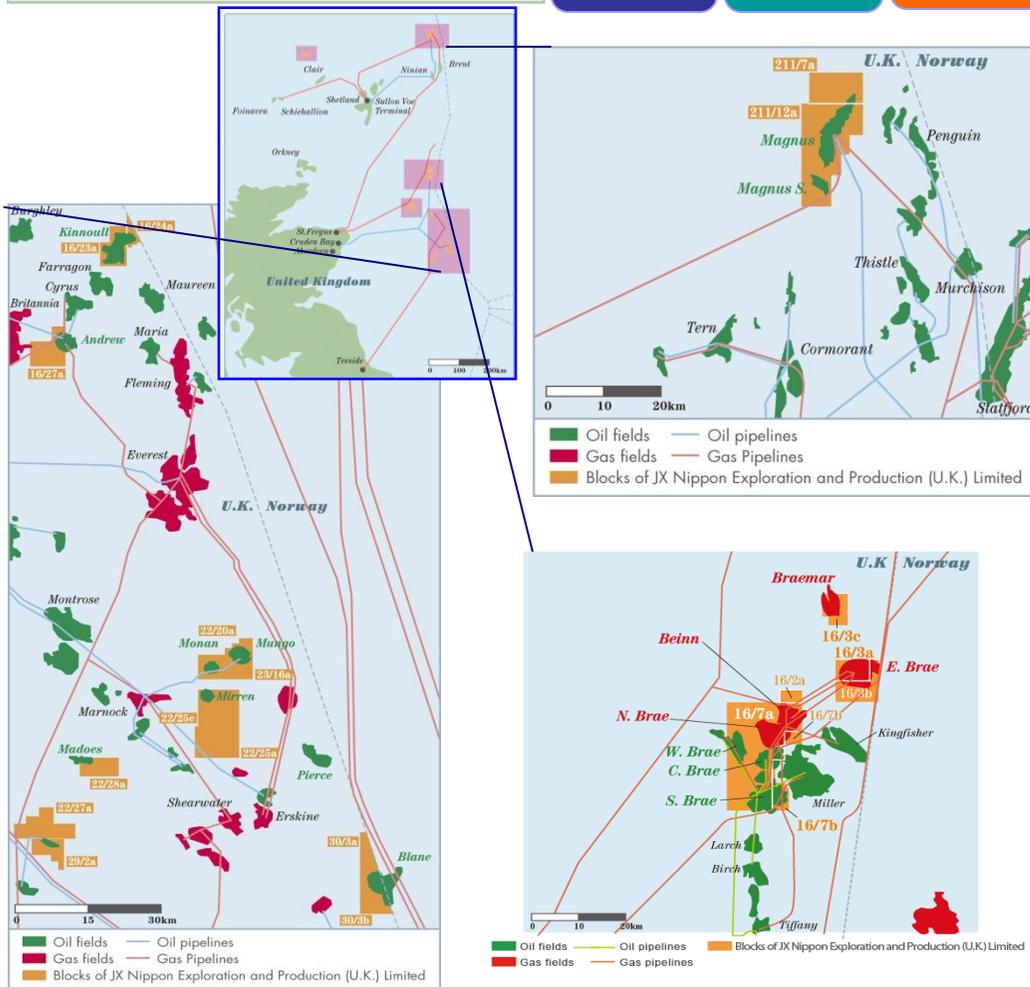


U.K. North Sea ①

Production

Development

Exploration



Project Company

JX Nippon Exploration and Production (U.K.) Ltd.
(100%)

(%) = JX Group Shareholding

Range of Interests in Individual Fields

2.1% to 85.0%

Operators

BP, Shell, Marathon, others

Production

Mining Area during the production

Andrew, Mungo / Monan, Mirren / Madoes, Blane
Magnus Oil Field, Brae Gas Field etc

'12 Jan - Jun Sales Volume

7,600 BOED

(oil: 6,100 b/d, gas: 9.0 mmcf/d)

- From 1994 to 2002, acquired a working interest in individual blocks.

Development

Mining Area during Development : Kinnoull oil field

- In August 2012, Acquired interest in Kinnoull field which is under development, by exchanging interest in Pierce field.

Exploration

Mining Area during Exploration

22/25a (Culzean Prospect) etc

- In March 2011, confirmed the presence of a significant hydrocarbon accumulation.

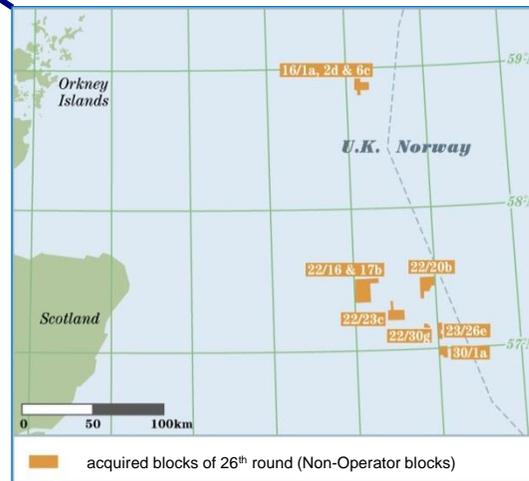
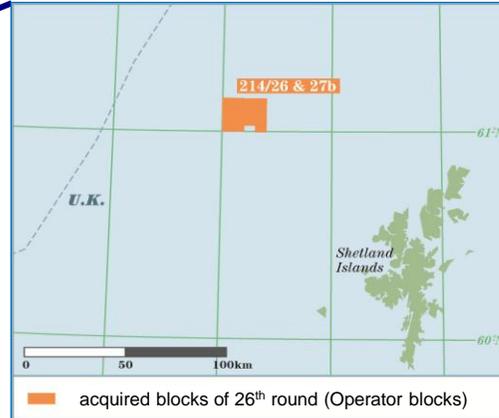
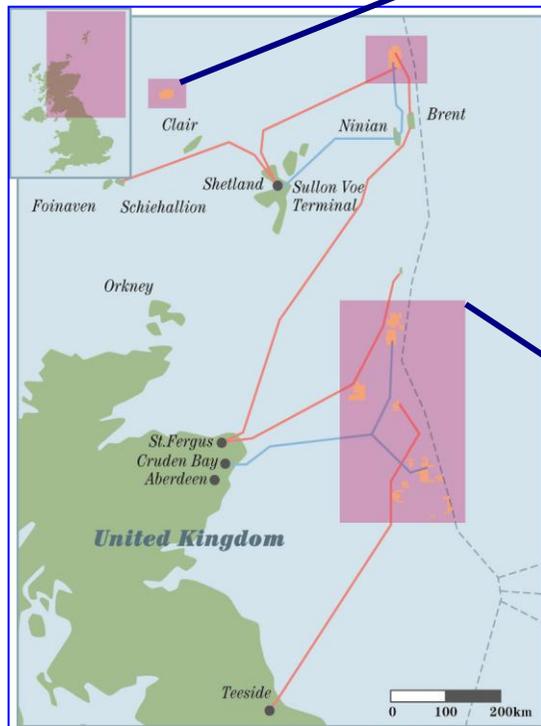
Principal Individual E&P Project Overview ⑤



U.K. North Sea ②

Exploration

New blocks are acquired in 2010 by 26th round of governmental open tender .



Project Company

JX Nippon Exploration and Production (U.K.) Ltd (100%)

(%) = JX Group Shareholding

Operator blocks

Interests of individual Fields

40%

The west of Shetland Islands

214/26, 214/27b

Non-Operator blocks

Range of Interests of individual Fields

10-25%

Operators

GDF Suez, BP, Maersk, TAQA

Middle North Sea

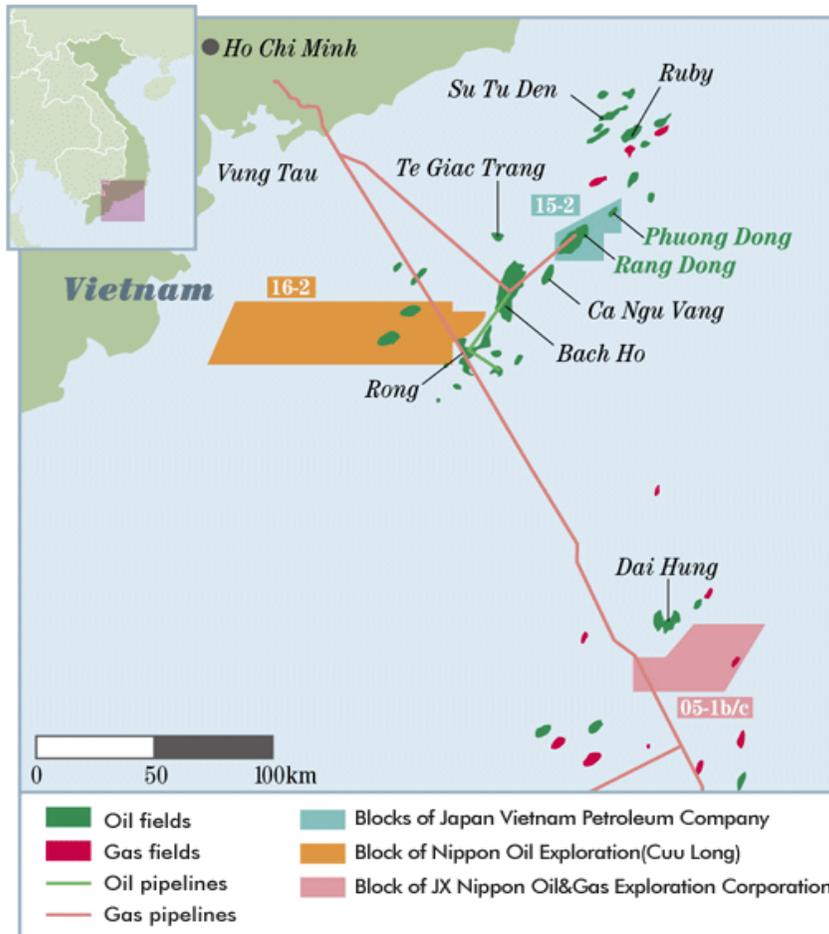
22/16, 22/17b, 22/20b, 22/23c, 22/30g, 23/26e, 30/1a, 16/1a, 16/2d, 16/6c

Principal Individual E&P Project Overview ⑥



Vietnam ① (Block 15-2)

Production



Project Company

Japan Vietnam Petroleum Co., Ltd. (JVPC)

(97.1%)

(% = JX Group Shareholding)

Interest in Individual Fields

Rang Dong : 46.5%

Phuong Dong : 64.5%

Operator

JVPC

Production

'12Jan – Jun Sales Volume

7,600 BOED

(oil: 5,900 b/d, gas: 10.2 mmcf/d)

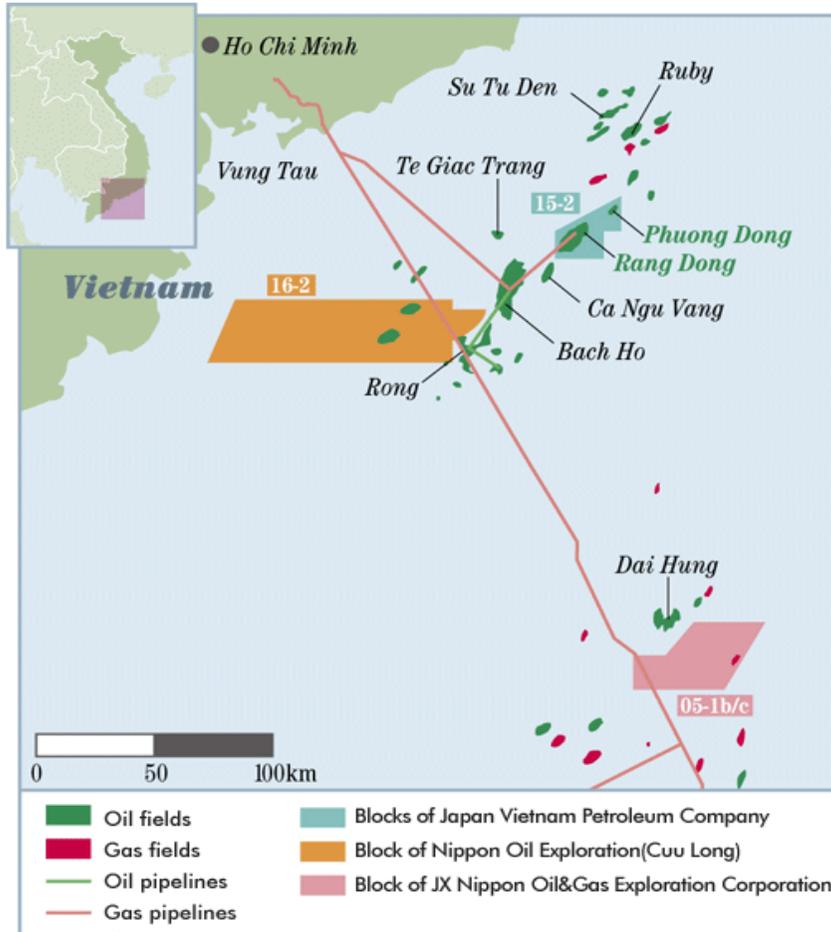
- In 1992, JVPC acquired a working interest in block 15-2
- In 1994, JVPC discovered the [Rang Dong Oil Field](#) within block 15-2, and it began production in that field from 1998.
- In February 2008 and April 2011, Rang Dong CDM Project received CER (Certified Emission Reductions) issuance approval 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 Field](#).

Principal Individual E&P Project Overview ⑦



Vietnam ② (Block 16-2)

Exploration



Project Company

Nippon Oil & Exploration (Cuu Long) Co., Ltd.

(29.5%)

(% = JX Group Shareholding)

Interest 40%

Operator PVEP

Exploration

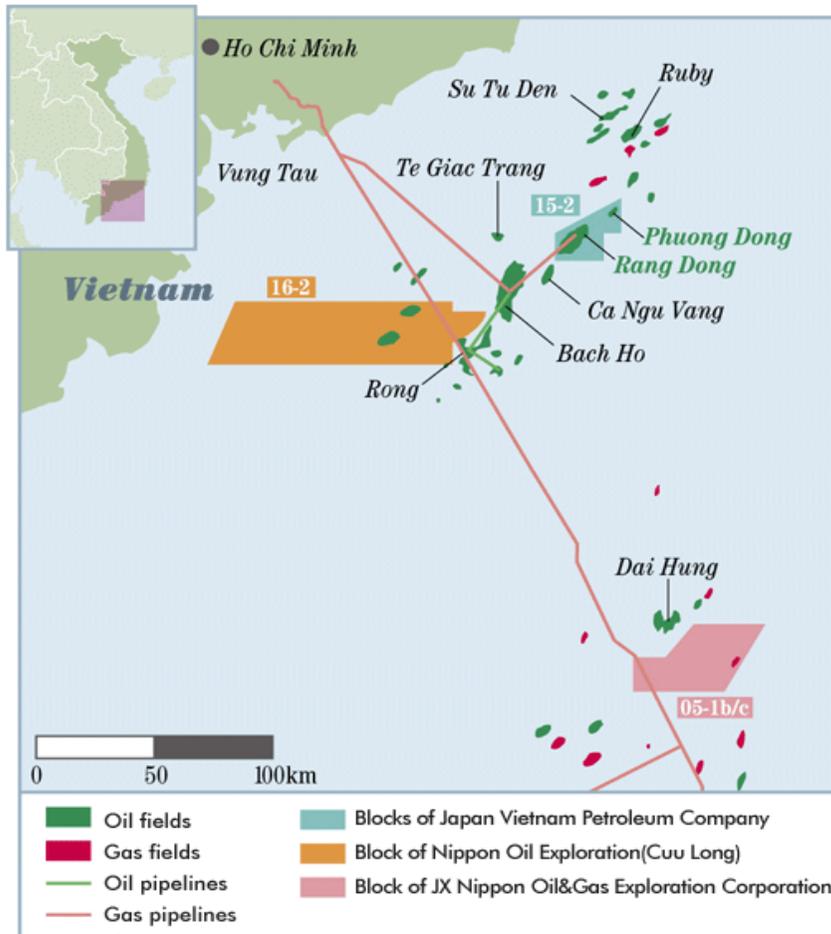
- In November 2007, acquired a working interest in **block 16-2** offshore Vietnam.
- In November 2009, using test well No,1, made a gas and condensate discovery.
- In August 2010, using test well No,2, made a gas and condensate discovery.

Principal Individual E&P Project Overview ⑧



Vietnam ③ (Block 05-1b/c)

Exploration



Project Company

JX Nippon Oil & Gas Exploration Co., Ltd.

(100.0%)

(% = JX Group Shareholding)

Interest 35%

Operator Idemitsu Oil & Gas CO., Ltd.

Exploration

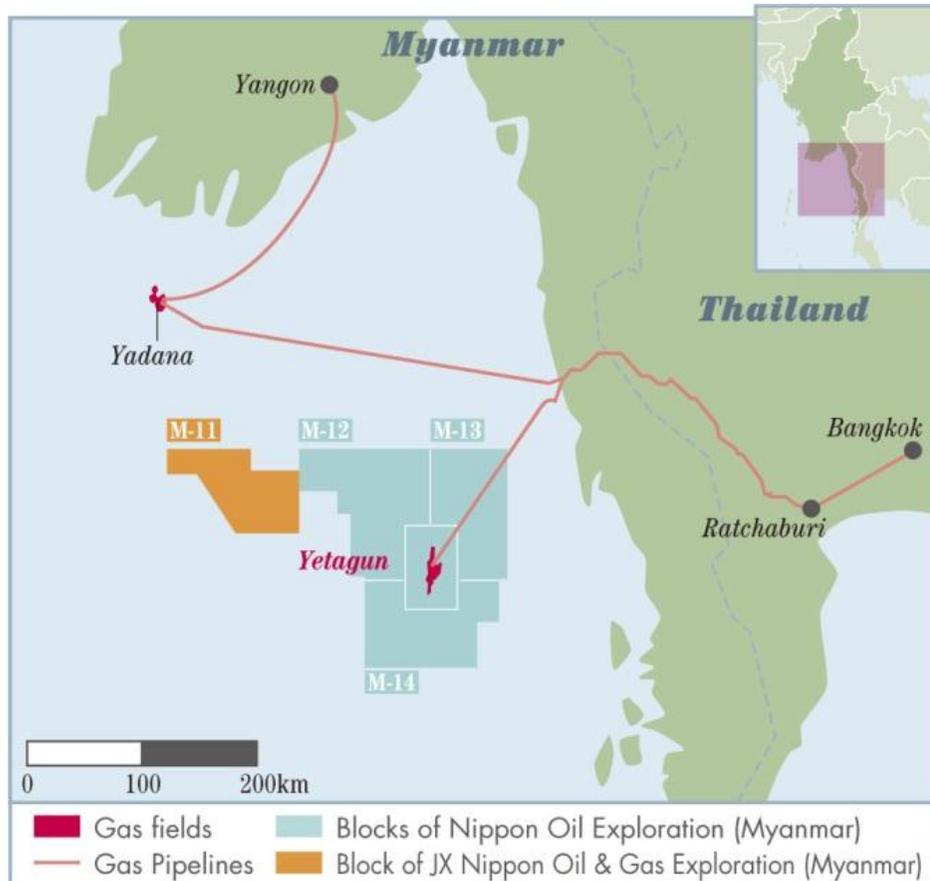
- In October 2004, acquired a working interest in **block 05-1b/c** offshore Vietnam.
- In August 2010, using test well No,1, made a gas and condensate discovery.

Principal Individual E&P Project Overview ⑨



Myanmar ① (M-12,13,14)

Production



Project Company

Nippon Oil Exploration (Myanmar), Limited
(NOEX Myanmar) (50%)
(%) = JX Group Shareholding

Interest in Individual Fields

19.3%

Operator

PETRONAS Carigali

Production

'12Jan - Jun Sales Volume

8,500 BOED

(oil: 800 b/d, gas: 46.2 mmcf/d)

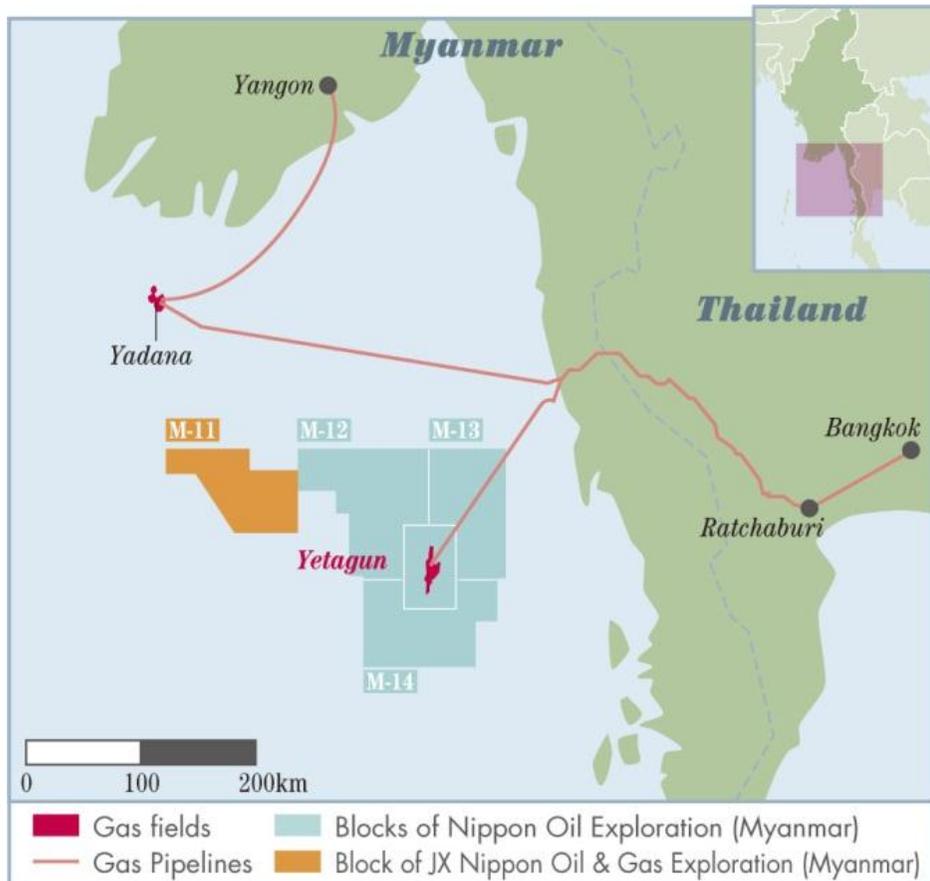
- In 1991, NOEX Myanmar acquired a working interest in [blocks M-13/14](#) offshore Myanmar.
- The following year, acquired a working interest in block M-12 and discovered the Yetagun Gas Field in that block.
- In 2000, production at the Yetagun Gas Field commenced, with the produced gas supplied to the Ratchaburi power plants in Thailand.

Principal Individual E&P Project Overview ⑩



Myanmar ② (M-11)

Exploration



Project Company

JX Nippon Oil & Gas Exploration (Myanmar), Limited
(100%)
(%) = JX Group Shareholding

Interest in Individual Fields

15%

Operator

PTTEPI

Exploration

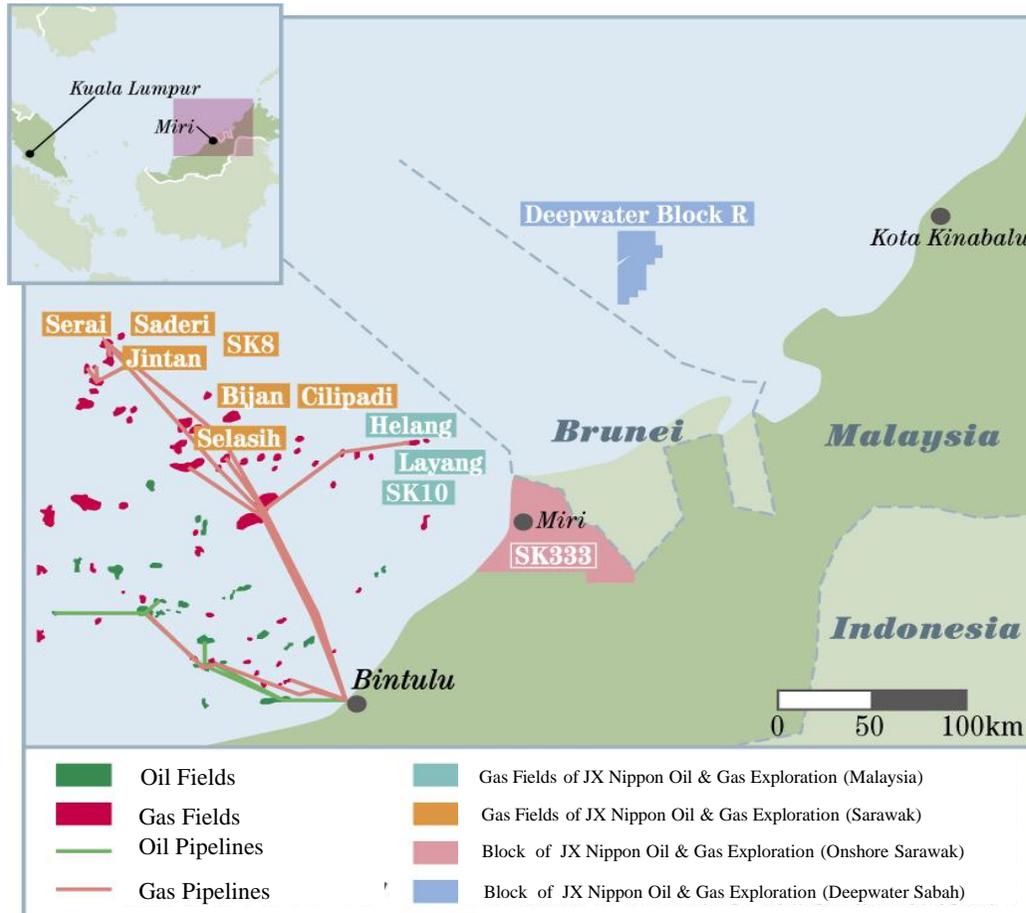
- In September 2012, acquired a working interest in blocks M-11, offshore Myanmar.
- In 2013, Scheduled to drill test well.

Principal Individual E&P Project Overview ⑪



Malaysia ① (Block SK10)

Production



Project Company

JX Nippon Oil & Gas Exploration (Malaysia), Limited
(78.7%)

(%) = JX Group Shareholding

Range of Interest in Individual Field

75%

Operator

JX Nippon Oil & Gas Exploration (Malaysia), Limited

Production

Mining Area during the production SK10 (Helang Gas Field)

'12 Jan - Jun Sales Volume

21,700 BOED

(oil: 3,900 b/d, gas: 106.8 mmcf/d)

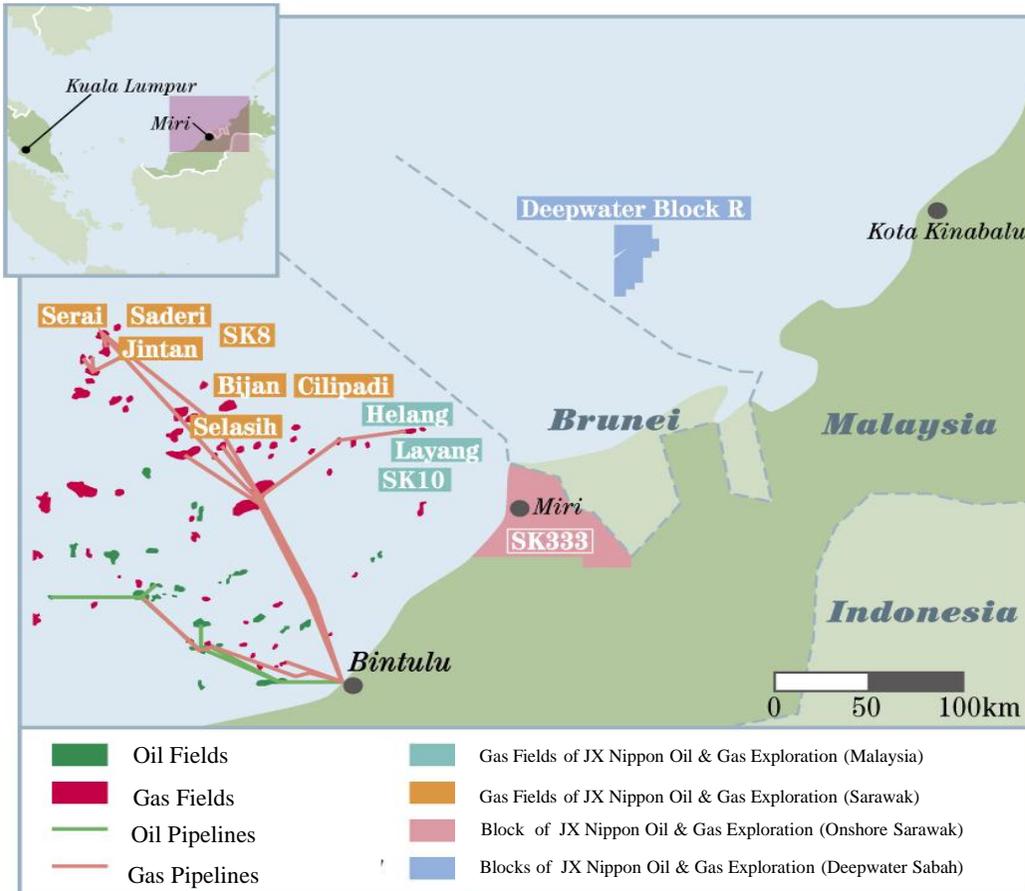
- In 1987, acquired a working interest in Block SK10 offshore Sarawak, Malaysia.
- In 1990, discovered the Helang Gas Field, where production commenced in 2003.
- In 1991, discovered the Layang Gas Field.

Principal Individual E&P Project Overview ⑫



Malaysia ② (Block SK8)

Production



Project Company

JX Nippon Oil & Gas Exploration(Sarawak),Limited
(76.5%)
(%) = JX Group Shareholding

Interest in Individual Fields

37.5%

Operator

Shell

Production

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

'12Jan - JunSales Volume

18,300 BOED

(oil: 1,900 b/d, gas: 98.4 mmcf/d)

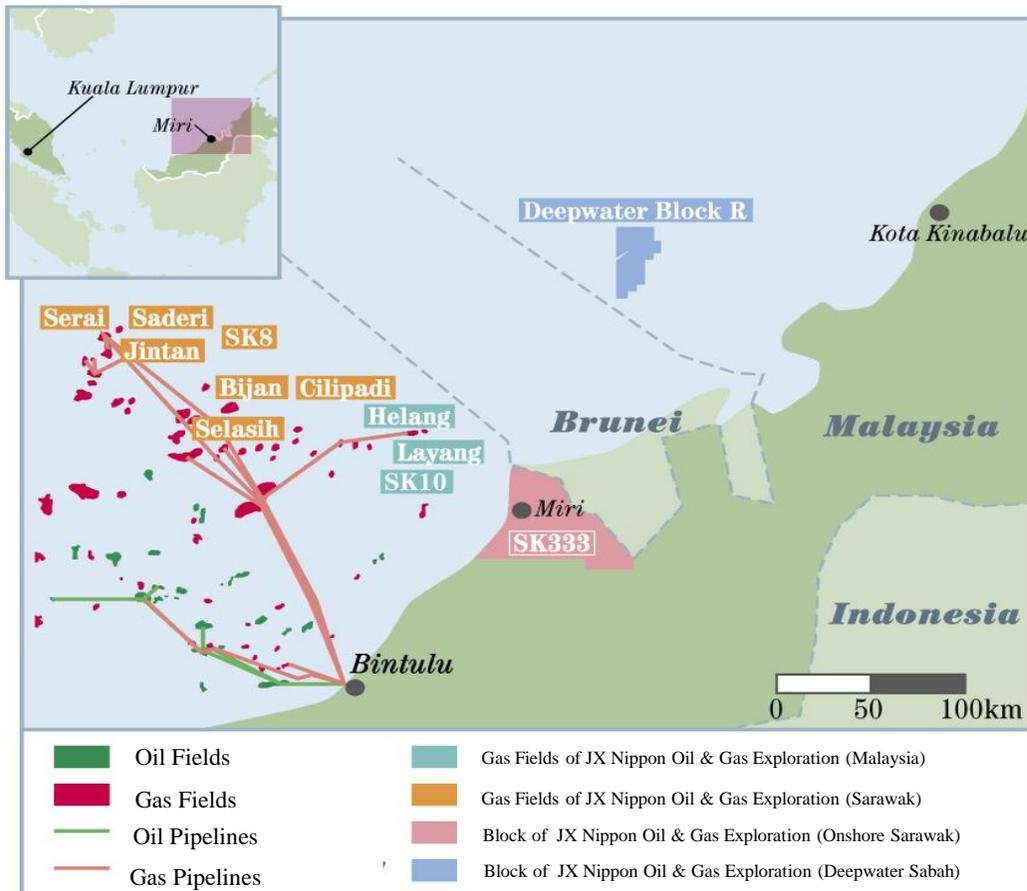
- In 1991, acquired a working interest in Block SK8 .
- From 1992 through 1994, the Jintan and other 6 Gas Fields were discovered in that block, and production of Jintan and Serai were commenced in 2004.
- In 2008, the Saderi Gas field commenced production.

Principal Individual E&P Project Overview ⑬



Malaysia ③ (Block SK333)

Exploration



Project Company

JX Nippon Oil & Gas Exploration (Onshore Sarawak) Limited
 (40.5%)
 (%) = JX Group Shareholding

Interest in Individual Fields

75%

Operator

JX Nippon Oil & Gas Exploration (Onshore Sarawak) Limited

Exploration

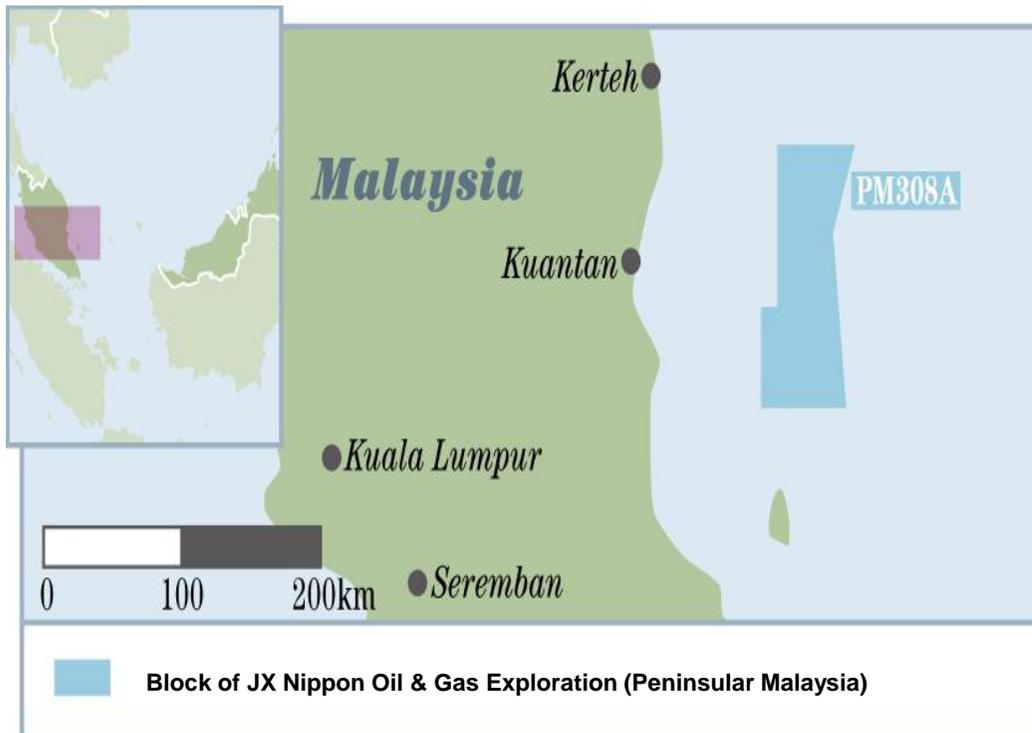
- In December 2007, acquired a working interest in **Block SK333** onshore Sarawak, Malaysia.

Principal Individual E&P Project Overview ⑭



Malaysia ④ (Block PM308A)

Exploration



Project Company

JX Nippon Oil & Gas Exploration (Peninsular Malaysia) Limited (37.7%)
 (%) = JX Group Shareholding

Interest in Individual Fields

40.0%

Operator

Lundin

Exploration

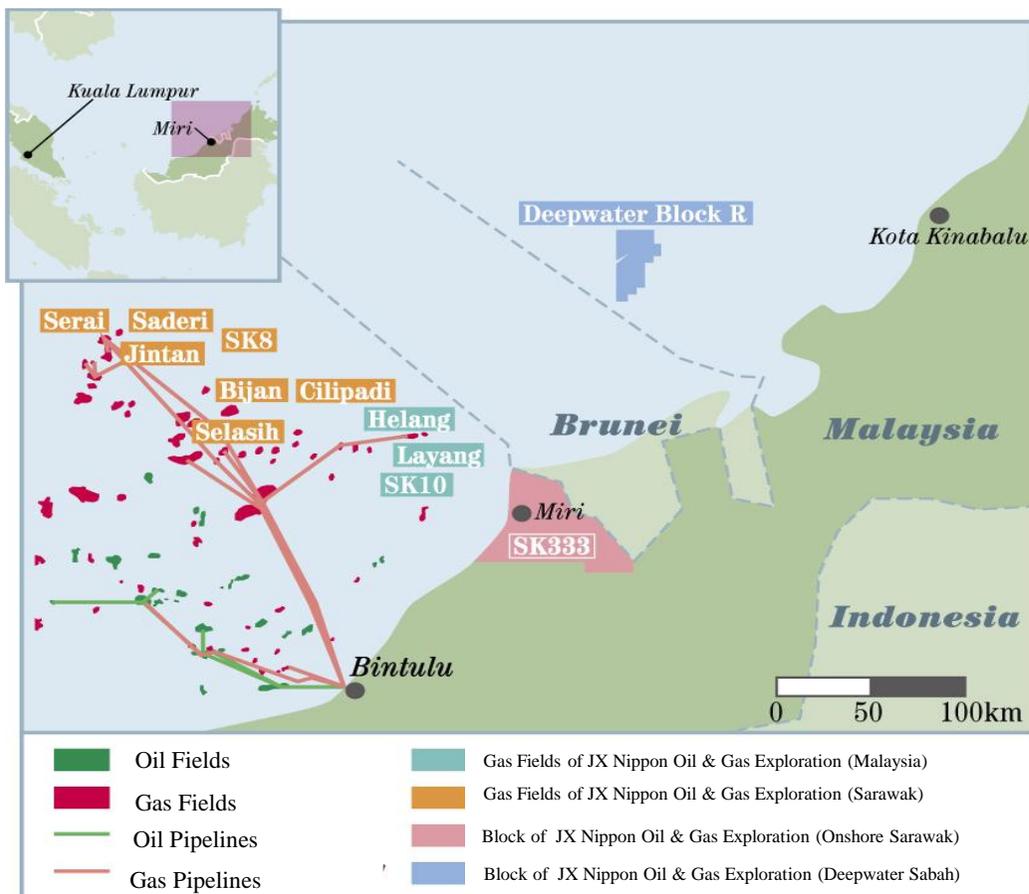
- In April 2008, acquired a working interest in **Block PM308A** Sarawak, Malaysia.

Principal Individual E&P Project Overview ⑮



Malaysia ⑤ (Deepwater Block R)

Exploration



Project Company

JX Nippon Oil & Gas Exploration (Deepwater Sabah) Limited (100%)

(%) = JX Group Shareholding

Interest in Individual Fields

37.5%

Operator

JX Nippon Oil & Gas Exploration (Deepwater Sabah) Limited

Exploration

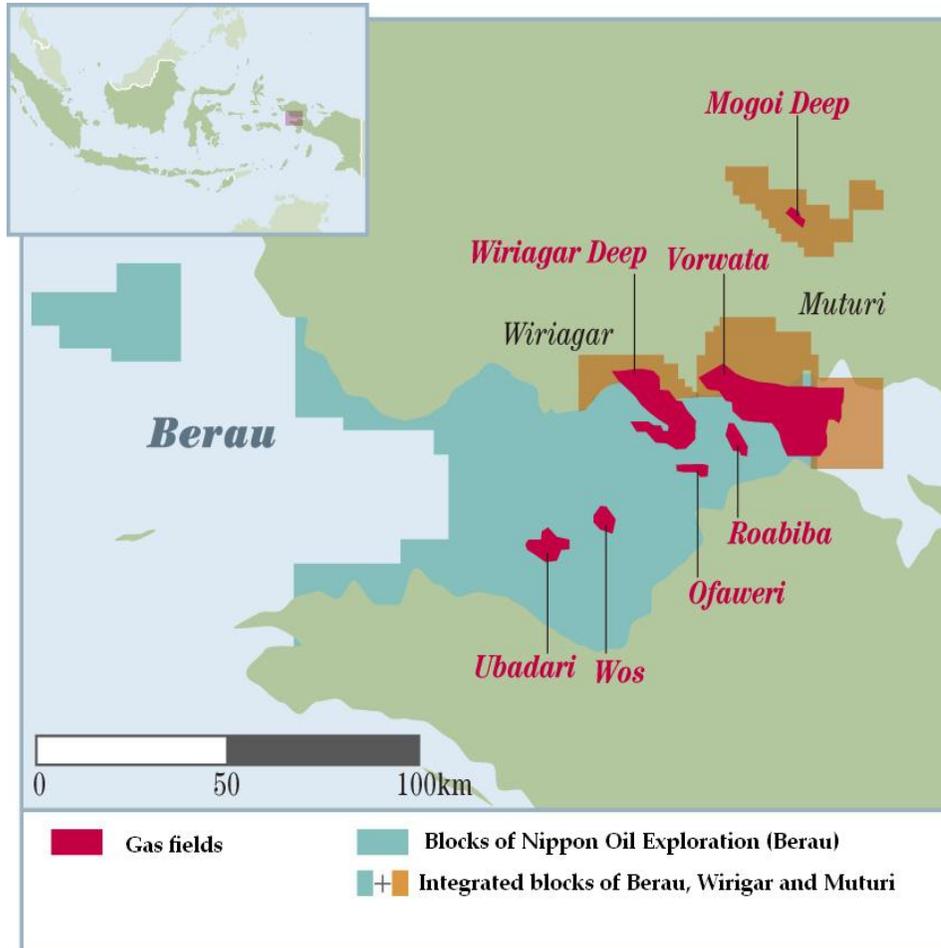
- In January 2012, acquired a working interest in **Deepwater Block R** offshore Sabah, Malaysia.

Principal Individual E&P Project Overview ⑩



Indonesia

Production

**Project Company**

Nippon Oil Exploration (Berau), Limited
(NOEX(Berau)) (51%)
(%) = JX Group Shareholding

Interest in Individual Fields

12.2% (after unitization)

Operator

BP

Production

Project during the production
Tangguh LNG Project

'12 Jan - Jun Sales Volume

21,900 BOED

(oil: 700 b/d, gas: 127.2 mmcf/d)

- From 1990, using three test wells, natural gas was discovered in the area. Subsequently, the Vorwata Gas Field, Wiriagar Deep Gas Field, and other gas structures were discovered.
- 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.
- Production commenced in June 2009, and the first cargo of LNG lifted in July 2009.

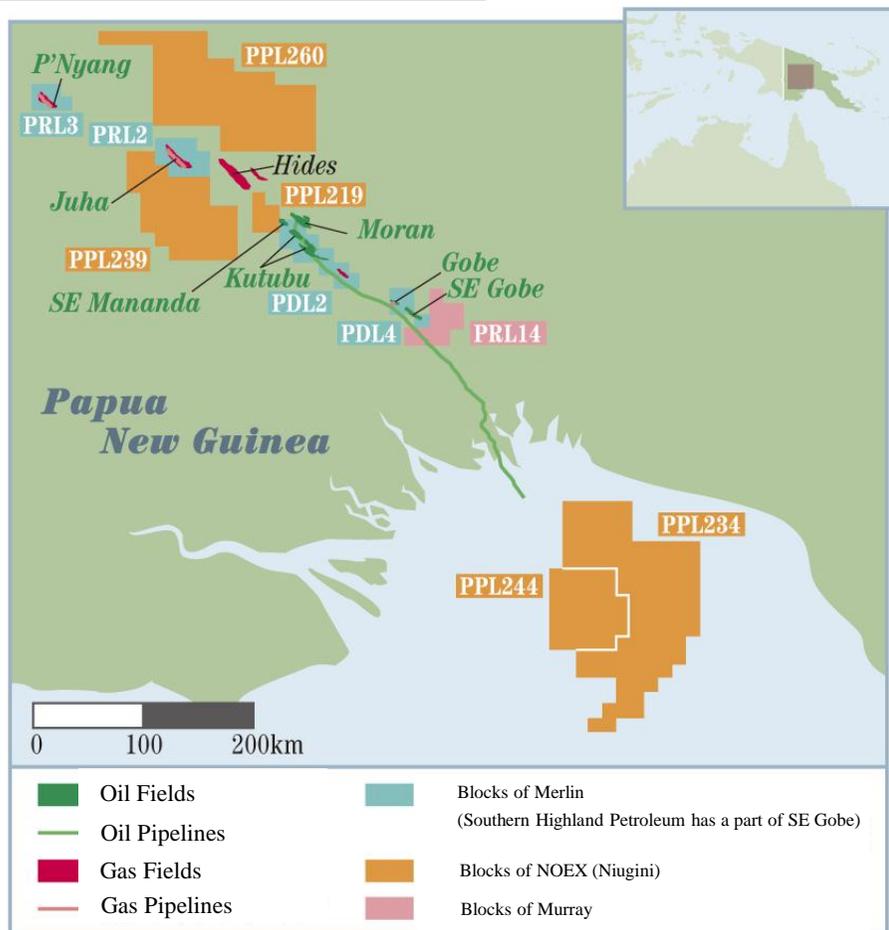
Principal Individual E&P Project Overview ⑰



Papua New Guinea ①

Production

Exploration



Project Company

Merlin Petroleum Company (79%)
 Nippon Oil Exploration (Niugini) Pty. Ltd. (30.4%)
 Southern Highland Petroleum Co. Ltd.(80%)
 Murray Petroleum Co., Ltd. (29.4%)
 (%) = JX Group Shareholding

Range of Interests in Individual Fields

8.6 to 73.5%

Operator

Oil Search, Exxon Mobil, others

Production

'12 Jan - Jun Sales Volume

6,100 BOED (Oil :6,100b/d)

- In 1990, Japan Papua New Guinea Petroleum acquired Merlin and acquired original exploration rights of Merlin in Papua New Guinea. Subsequently, exploration, 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 the LNG project from AGL Energy
- In April 2011, using test well "Mananda-5", made an Oil discovery in Block PPL219.

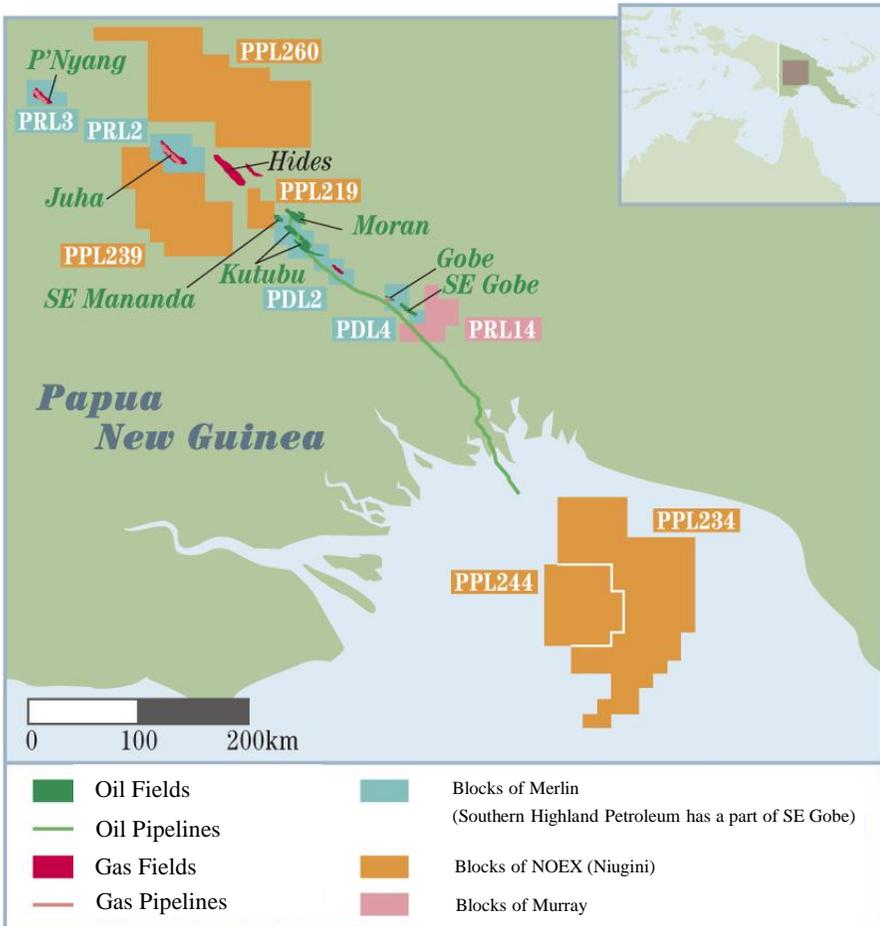
Exploration

Principal Individual E&P Project Overview ⑱



Papua New Guinea ② PNG LNG

Development



Project Company

Nippon Papua New Guinea LNG LLC (79%)
(%) = JX Group Shareholding

Range of Interests in Individual Fields

4.7%

Operator

Exxon Mobil

Development

Project during the development PNG LNG Project

- In December 2008, acquired the PNG LNG Project equity and oil field equity that AGL Energy owned.
- In December 2009, PNG LNG Project was made a final decision to proceed with the development .

Principal Individual E&P Project Overview ①

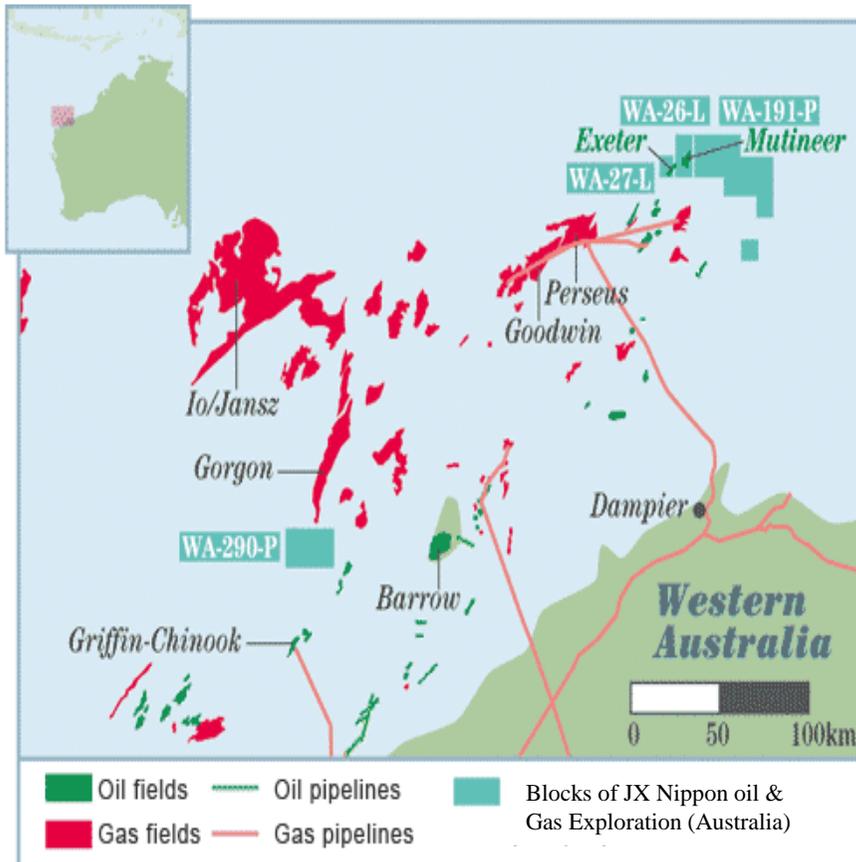


Australia

Production

Development

Exploration



Project Company

JX Nippon Oil & Gas Exploration (Australia) Pty Ltd
(100%)
(%) = JX Group Shareholding

Interest in Individual Fields

15%-25%

Operator

Santos (WA-26-L, WA27-L, WA-191-P)
Apache (WA-290-P)

Production

'12 Jan - Jun Sales Volume

1,300 BOED
(oil: 1,300 b/d)

- In 2002, acquired a working interest in **Block WA-191-P**, and discovered Mutineer and Exeter Oil Field. Production of Mutineer and Exeter Oil Fields are commenced in 2005.

Development

- In May 2011, made an Oil discovery in the Finucane South prospect in Block WA-191-P.
- In Jan 2012, Made the Final Investment Decision on the **Finucane South field**.

Exploration

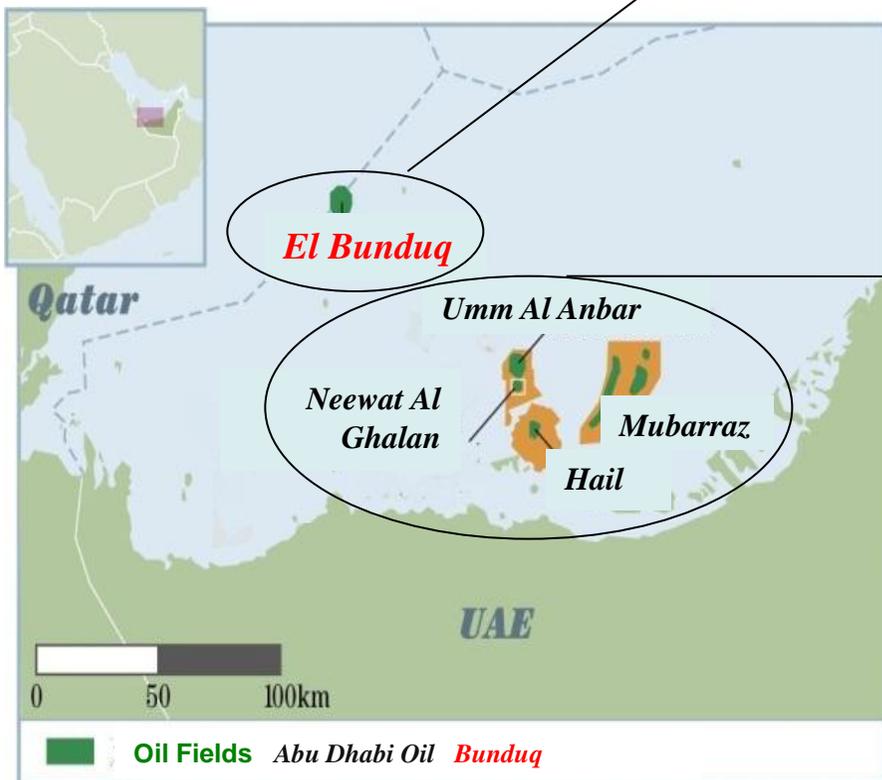
- In April 2011, using test well "Zola-1", made a Gas discovery in **Block WA-290-P**.

Principal Individual E&P Project Overview ②⑩



UAE, Qatar

Production

**Project Company**

United Petroleum Development Co., Ltd (45%)
(%) = JX Group Shareholding

Interest in Individual Fields 97%

Operator Bunduq Co., Ltd

- In 1970, United petroleum Development acquired a working interest of El Bunduque Oil Field.
- In 1975, oil production commenced in [El Bunduq oil feld.](#)
- 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.

Project Company

Abu Dhabi Oil Co., Ltd (31.5%)
(%) = JX Group Shareholding

Interest in Individual Fields 100%

Operator Abu Dhabi Oil Co., Ltd

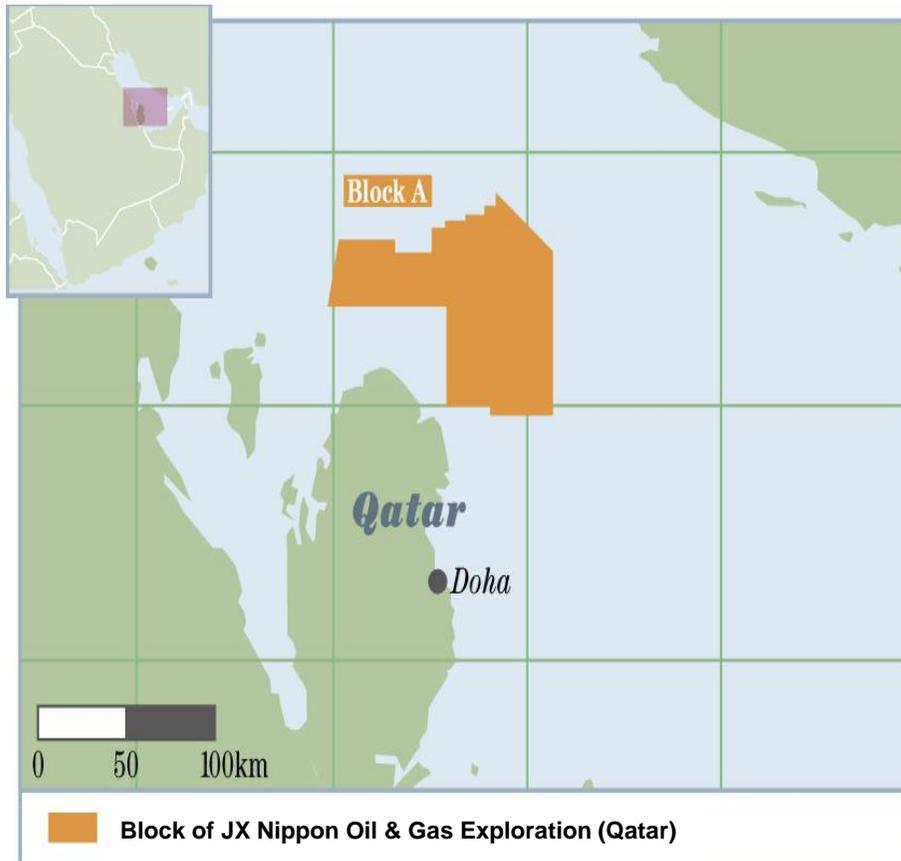
- In 1967, acquired working interest in block of Mubarraz.
- In 1973, oil production commenced in [Mubarraz Oil Field.](#)
- In 1989, oil production commenced in [Umm Al Anbar Oil Field.](#)
- In 1995, oil production commenced in [Neewat Al Ghalan Oil Field.](#)
- In 2009, 3 fields achieved cumulative production volume of 300 million barrels.
- In 2011, Sign a New Concession Agreement.

Principal Individual E&P Project Overview ②1



Qatar

Exploration

**Project Company**

JX Nippon Oil & Gas Exploration (Qatar) Limited (100%)
 (%) = JX Group Shareholding

Interest in Individual Fields

100%

Operator

JX Nippon Oil & Gas Exploration (Qatar) Limited

Exploration

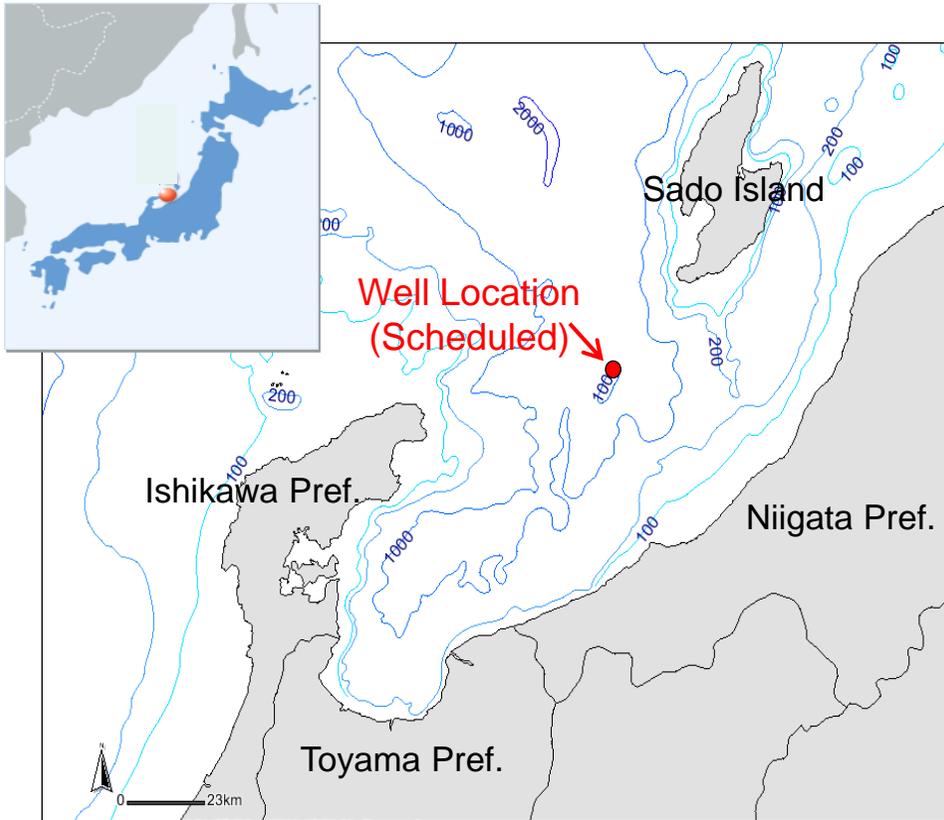
- In May 2011, acquired a working interest in **Block A** (Pre-Khuff), offshore Qatar .
- In March 2012, established interest in Block A (Pre-Khuff), offshore Qatar officially came into effect.

Principal Individual E&P Project Overview ②②



Japan (Offshore Niigata)

Exploration

**Project Company**

JX Nippon Oil & Gas Exploration Limited (100%)
(%) = JX Group Shareholding

Interest in Individual Fields

100%

Operator

JX Nippon Oil & Gas Exploration Limited

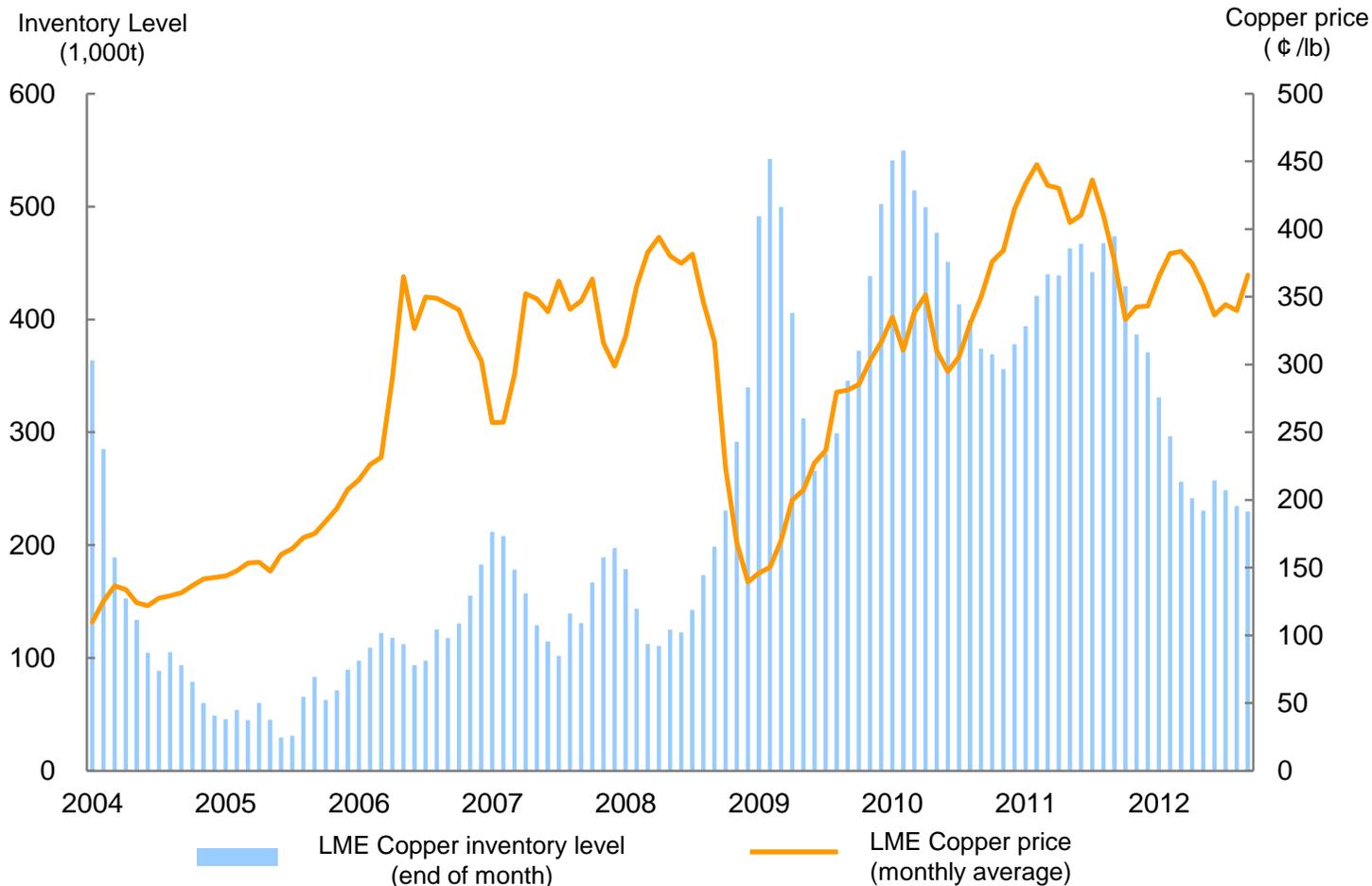
Exploration

- In December 2011
Signed contract with METI's Agency for Natural Resources and Energy, for oil and gas research.
- In Spring 2013
Scheduled to drill "METI Kisoshisui" well

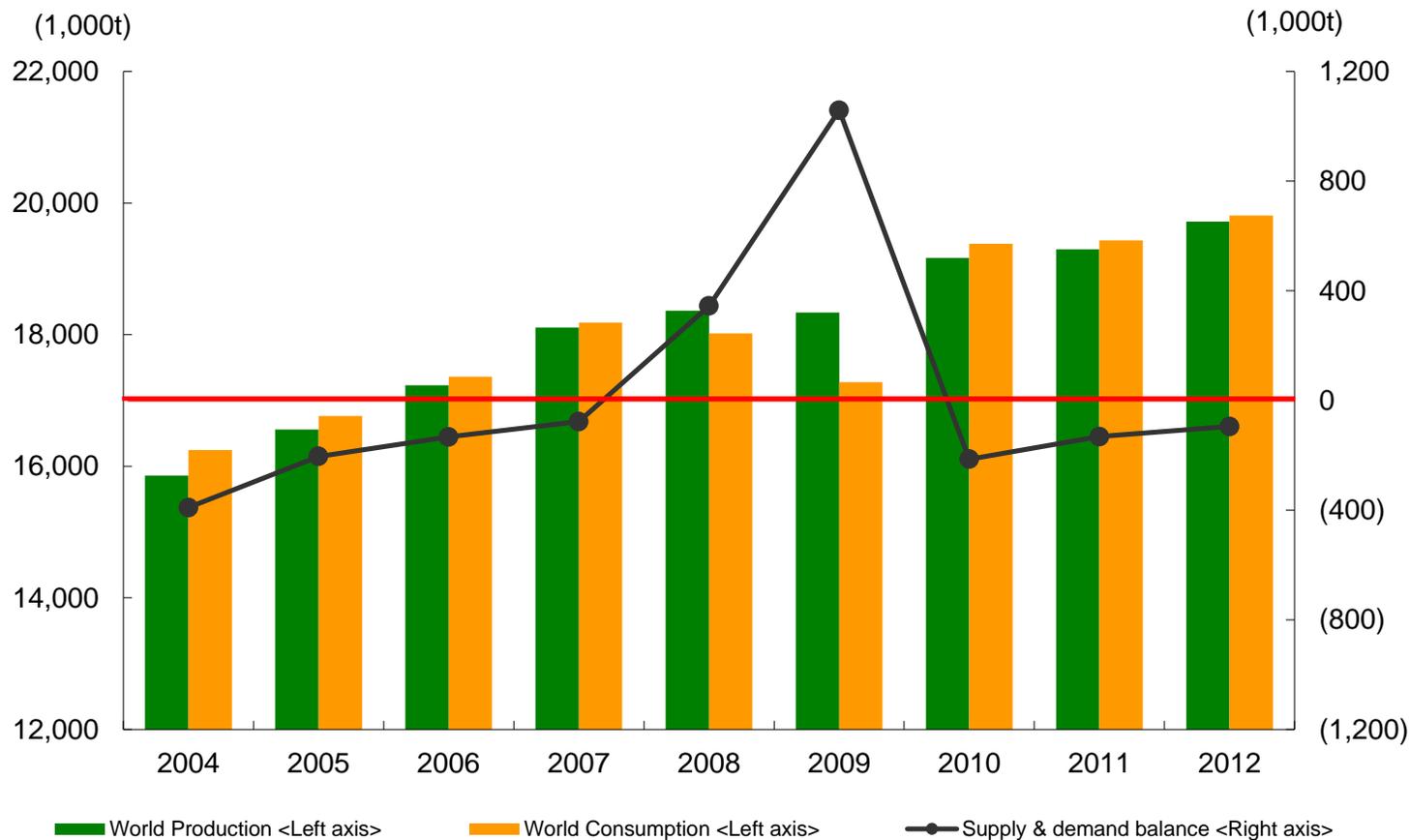
Copper Price and Inventory Level



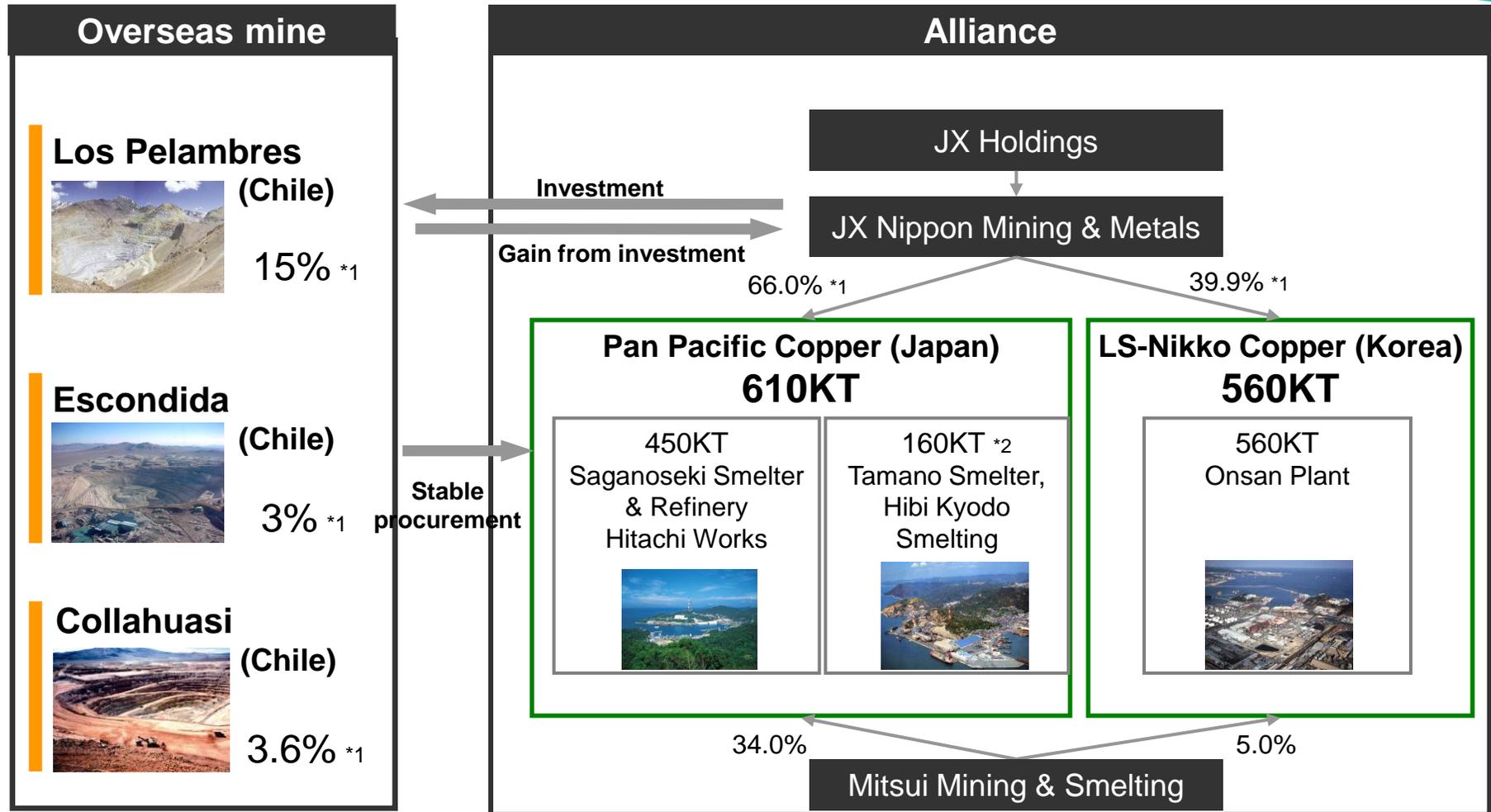
Average Price	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12 (¢/lb)	
									1Q	2Q
Copper	136	186	316	344	266	277	369	385	357	350



World Copper Cathodes Supply & Demand



Copper Business



*1. Shares held by JX Nippon Mining & Metals
 *2. Total Capacity is 260KT. PPC has 63.51% equity.

Overseas Copper Mine Development ①



Caserones Copper Mine (Chile)

Full-Fledged Development
forward 2013

Acquisition date May 2006

Acquisition price \$137 million

Initial investment \$ 3.00 billion

In July 2011, Project finance(\$1.1billion) and Long-term Lone(\$0.3billion) are concluded.

Ownership

Pan Pacific Copper (PPC)*1 75%

*1 Jointly established by JX Nippon Mining & Metals (66%) and Mitsui Mining & Smelting (34%)

Mitsui & Co., Ltd. 25%

Mine life From 2013 to 2040 (28 years)

SX-EW From Jan. 2013

Copper Concentrate From Sep. 2013

Production Plan

		Initial 10 years	28 years average	28 years total
Copper	Copper Concentrate (copper content)	150kt/y	110kt/y	3,140kt
	Copper Cathode (SX-EW process)	30kt/y	10kt/y	410kt
	Total	180kt/y	120kt/y	3,550kt
Molybdenum		3kt/y	3kt/y	87kt



Overseas Copper Mine Development ②



Frontera Area (Cile/Argentina)

Acquired Exploration rights
in Sep. 2012

Ownership

NGEx Resources Inc. (Canada) : 60%

Pan Pacific Copper (PPC) : 40%

*PPC is Jointly established by JX Nippon Mining (66%) and Mistui Mining & Smelting (34%)

PPC acquired the exploration rights in Sep.2012 from JOGMEC (Japan Oil, Gas and Metals National Corporation)

Exploration results

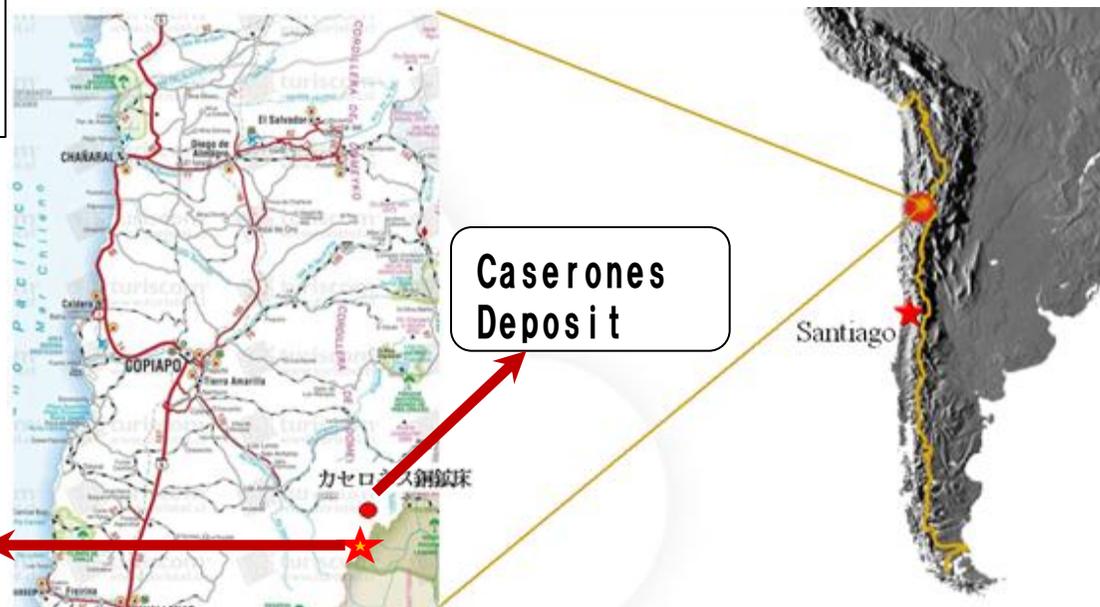
Drilled exploring holes at Los Helados between 2004 and PPC's acquisition and confirmed existence of copper-gold deposit.

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

Main Exploring Areas

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

Filo del Sol (Argentina)



Nikko-Chloride Process (N-Chlo Process)

N-Chlo Process

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

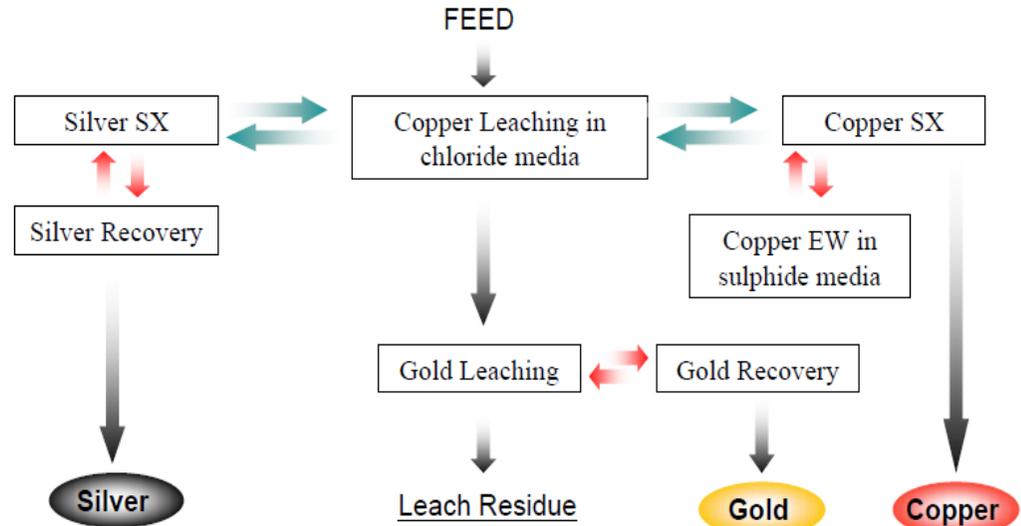
The process enables the effective recovery of not only copper from low-grade copper concentrate, but also such precious metals as gold and silver .

We constructed a pilot plant in Australia and have been conducting demonstration test since latter half of 2009, and we got a good result about copper and gold recovery. After FY 2011, we will proceed facility design for test operation on commercial basis for feasibility study.

Pilot plant in Perth, Australia (About 100t/y Cu recovery)



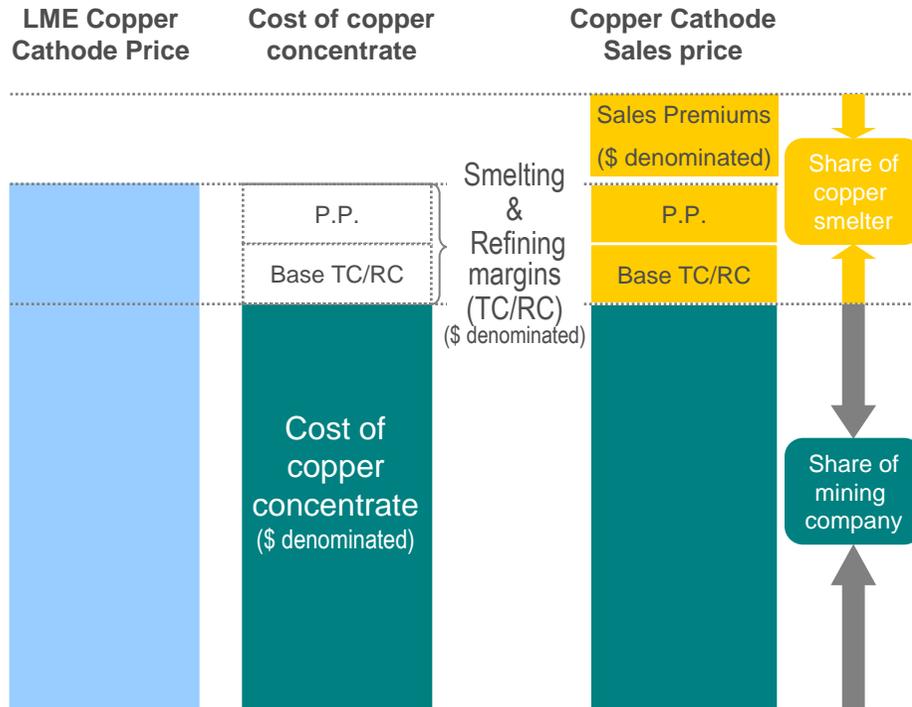
Structure of N-Chlo Process



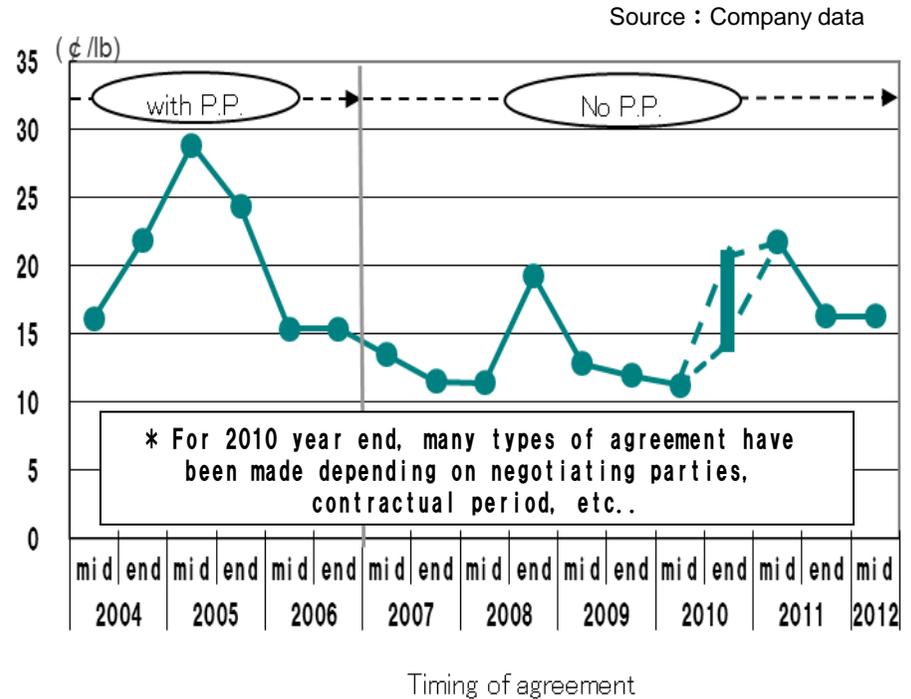


Earnings Structure of Copper Smelter & Refinery / Trends of Base TC/RC

Earnings Structure of Copper Smelter & Refinery



Trends of Base TC/RC



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 & refining margins.

TC (Treatment charge) + RC (Refining charge) : Consisting of “Base TC/RC” and “P.P.”

P.P. (Price participation) : The system under which mines and smelters share margins when LME copper price exceeds benchmark price.

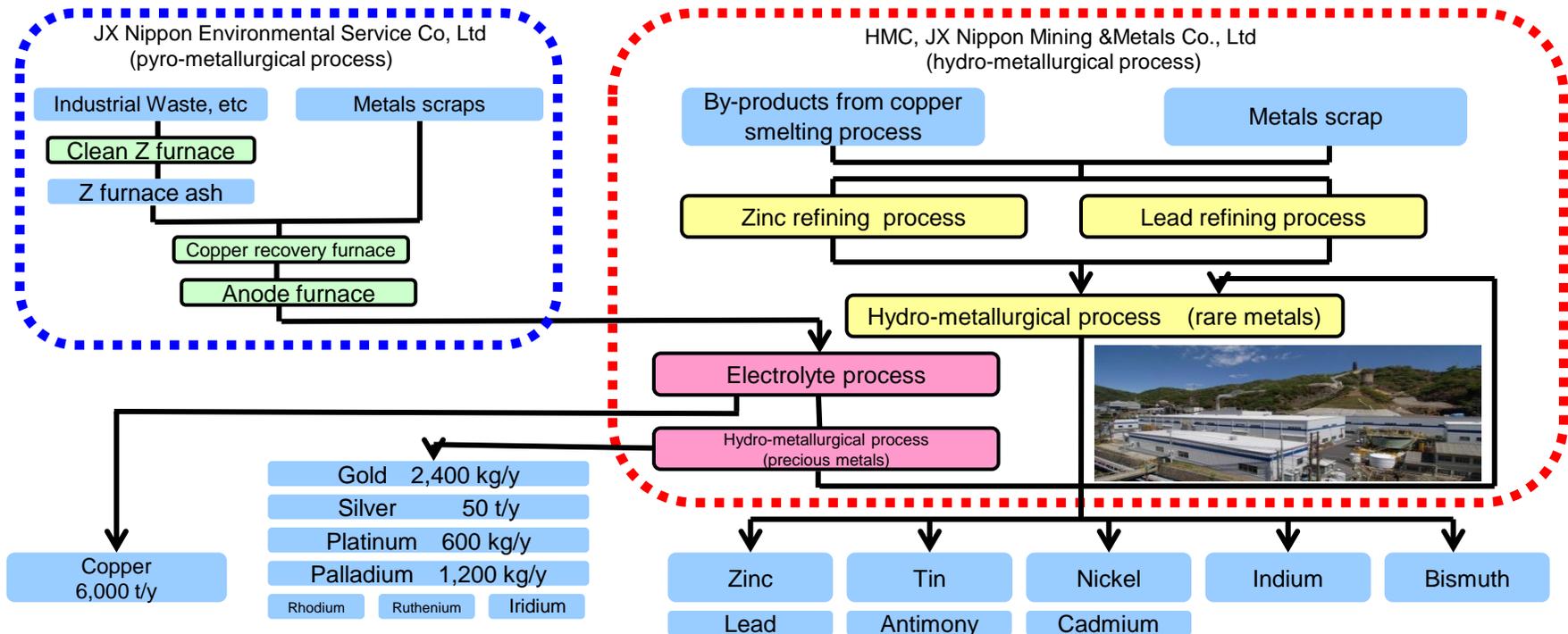
Sales price : LME price plus sales premiums, which is established by reference to various factors including importation costs, import tariffs, and others

Recycling and Environmental Services Business



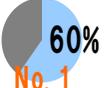
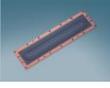
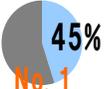
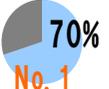
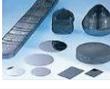
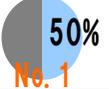
Hitachi Metal Recycling Complex

- Recovering 16 kinds of metals efficiently by hydro-metallurgical process
- An original zero emission process that combines with pyro-metallurgical process of JX Nippon Environmental Services Co., Ltd at adjacent site.
- Favorable location adjacent to the metropolitan area – the biggest urban mine in Japan
- The role as a raw material (indium, nickel, etc.) supplier to Electronic Materials Business



Electronic Materials



Main IT-related products	Global market share	Primary applications	End-use applications				
			PCs	Mobile phones / Smart phones	Digital, Avs	Telecom infra	Auto mobiles
 Treated rolled copper foil	 75% No. 1	Flexible printed circuit boards	○	◎	◎		
 Semiconductor targets	 60% No. 1	CPUs, memory chips, etc.	◎	○	◎	○	○
 ITO targets for FPDs *1	 30% No. 1	Transparent electrodes	◎	○	◎		
 HD media targets	 30% No. 2	HDD (Hard disk drives), etc.	◎	○			
 Phosphor bronze	 20% No. 1	Connectors	◎	○	○		○
 Corson alloy (C7025)	 45% No. 1	Lead frames, Connectors	◎	○	○		○
 Titanium copper alloy	 70% No. 1	High-class connectors, etc.	○	◎	○		
 In-P compound semiconductors	 50% No. 1	Optical communication devices High-speed IC			○	◎	○