**Security Code** 

**Tokyo 5020** 

## JX Holdings IR Materials

1. Second Medium-Term Management Plan (FY2013-2015) and Long-Term Vision (FY2020)

Become a world's leading integrated energy, resources and materials business group
-Start a leap forward-

June, 2013





## **Businesses Summary of JX Group**





## X Holdings, Inc.

#### **Energy Business**

Market Share of domestic sales of petroleum products

36 % \*1

(No.1 in Japan)

Paraxylene production capacity

2,620 thousand\*2 (No.1 supplier in Asia)



Oil & Natural Gas Exploration and Production Business

Crude oil and natural gas production (a project company basis)

Approx. 120

barrels/day (B/D)

Worldwide business activities Malaysia, Vietnam, UK, Middle East and others



#### **Metals Business**

Equity entitled copper mine production

Approx. 100 thousand \*4

Refined copper production capacity

Electronic Materials: Products with world No.1 market shares



Listed subsidiaries

**NIPPO Toho Titanium** 

Common function companies

> Independent companies

\*1 FY 2012actual

- \*2 As of Mar. 2013
- \*3 Crude Oil Equivalent (Average daily production from Jan. to Dec. 2012)
- \*4 Equity entitled copper production contained in copper concentrate (Production from Jan. to Dec 2012)
- \*5 Pan Pacific Copper(66.0% equity stake); 610 thousand tons/year + LS-Nikko Copper(39.9% equity stake); 560 thousand tons/year (As of Mar. 2013)

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#### 1. Summary of 1<sup>st</sup> Medium-Term Management Plan

# Policy 1: Dramatical Transformation in Petroleum Refining & Marketing Business



#### ✓ Capacity Reduction Plan

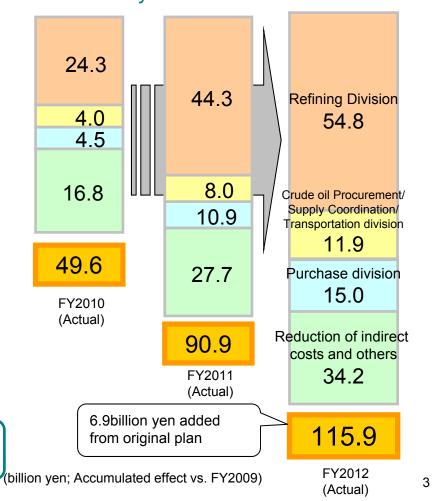
(JX) 2008.Dec. 2014.Apr. 1,790 ⇒ 1,210 thousand BD (Ref. Japan Total)
2008.Dec. 2014.Apr.

4,830 ⇒ 3,720 thousand BD

of Energy Supply Structure Act

	Refinary	Due Date	Reduction Capacity	Completion
STEP1 Toyama March,		March, 2009	(60) thousand B/D	
	Kashima	May, 2010	(21)	
	Oita	May, 2010	(24)	
	Mizushima	June, 2010	(110)	
	Osaka	October, 2010	(115) Convert to exportation refinery	
	Negishi	October, 2010	(70)	
Subtotal		(400)		
STEP 2	Muroran	March, 2014	(180)	
Total		(580)		
			Corresponded	I to Sophisticat

✓ Integration Synergies and Enhanced Efficiency of Refineries



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#### 1. Summary of 1<sup>st</sup> Medium-Term Management Plan

# Policy 2: Allocate Management Resources to Highly Profitable Operations on a Priority Basis



1st Mid-Term Mgt. Plan(2010-2012) CAPEX

Unit: billion yen

#### **Original Plan** Actual 960 958 Strategic Others 40 Investment Others 63 Strategic 711 Investments 690 Metals Others 18 300 Metals 328 Metals Metals 220 278 E&P E&P 320 225 E&P E&P 225 320 Energy Energy 342 300 Energy Energy 190 150

<Main contents of strategic investments>

#### Energy

- ➤ Establishing the most-competitive structure for petroleum refining and marketing in domestic market
  - Restructuring and strengthening network of service station
  - LNG Terminal (Mizushima, Hachinohe, Kushiro)
- > Strengthening overseas business operations, focusing on Asia
  - · Paraxylene and lubricant base oil projects in Korea
  - Expansion of lubricants business (Indonesia, Vietnam etc.)
  - · Acquisition of coking coal interests in Canada

#### E&P

- Exploration: Acquisition of large operator projects (Malaysia deepwater block R offshore Sabah, Qatar block A)
- Development : Papua New Guinea LNG project
- ➤ Resource acquisitions: Assets purchase in UK

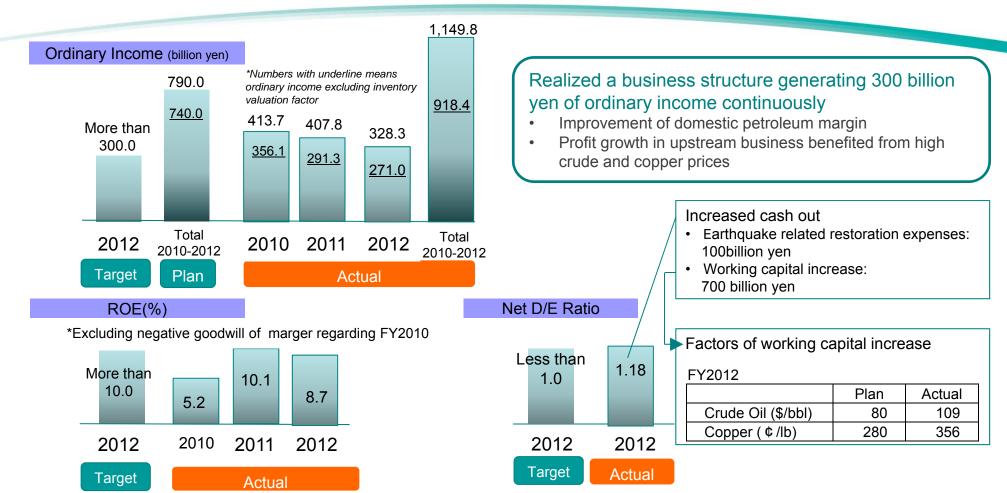
#### Metals

- ➤ Establishing highly profitable and well-balanced business structure between resources development and smelting and refining business
  - Expansion of Caserones Copper Mine.
  - Acquisition of Frontera exploration interests (Chile and Argentina)
- ➤ Improving profitability of electric materials satisfying high-growth automobile components market needs
  - · Expansion of Cathode materials capacity for litium-ion batteries
  - Construction of Kakegawa Works, integrated manufacturing process of connectors.

#### Summary of 1st Medium-Term Management Plan

## Review of Target





#### Built a base for realizing 10% of ROE

continuously despite effect of positive inventory valuation

Target unaccomplished because of earthquake related restoration expenses and working capital increase due to crude and copper price rise

#### **Business Environment**



#### **★**Domestic Environment

- Population decrease and deindustrialization hold economic growth low
- Structural decline of petroleum products demand continues
- Reformulation of energy policy by Japanese government progresses

#### **★**Worldwide Environment

- Emerging countries lead growth, globalization and Information Technology proceeds
- Demand of energy, resources, materials expands mainly in Asia
- Resources and energy prices stay high, but volatile.
- Shale gas and oil revolution makes progress.
- Concerns over global environmental problems increase, and movement to low-carbon and recycling-oriented society progresses

Uncertainty of business environment increases around energy, resources and materials business.

## **Basic Policy**



On the premise of establishment both of proper governance backed with thorough compliance and CSR implement structure

#### **Profitability**

- Securing stable profitability in existing business by realizing overwhelming competitiveness through continuous restructuring and stable operation
- Realizing return from invested projects

⇒P10

Realizing
high profit
and
high ROE
continuously

#### Growth

➤ Allocating management resources to highly profitable and developing operations on priority basis

#### **Flexibility**

➤ Structuring stronger balance sheet corresponding to business environmental change ⇒P13

Strengthening risk tolerance

### Maximize group corporate value

Become a world's leading integrated energy, resources and materials business group



# **JX**

## **Key Factors and Targets**

Key Factors
(FY2015)

Exchange Rate 90 yen/\$

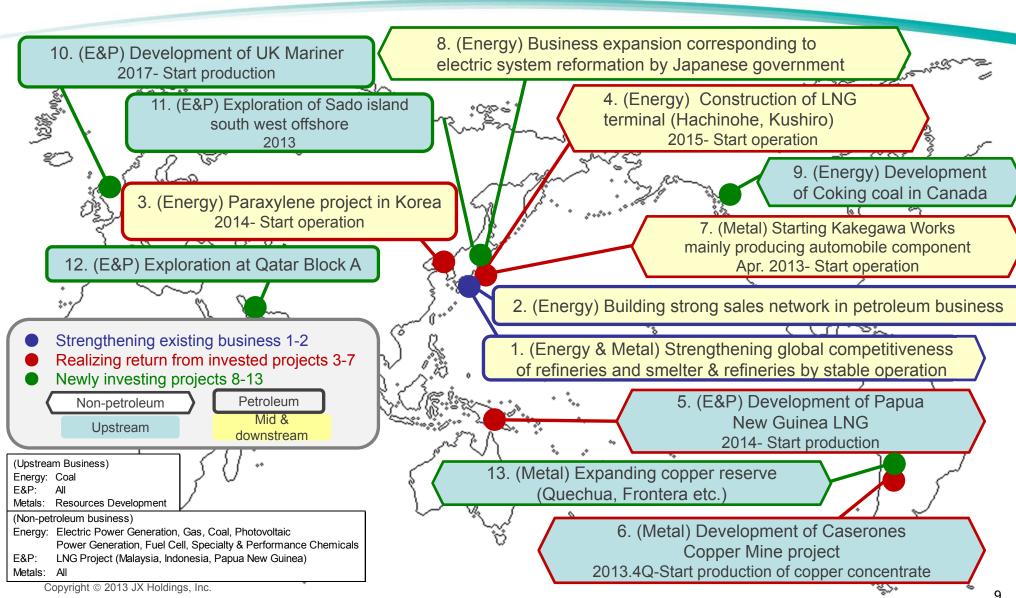
Crude Price(Dubai spot) 110 \$/bbl

Copper Price(LME) 360  $\phi$ /lb

	2 <sup>nd</sup>	(Reference) 1 <sup>st</sup> Midi-Term Mgt. Plan	
	Ordinary Income	400 billion yen or more (FY2015)	300 billion yen or more ( FY2012)
Target	ROE	10% or higher (FY2015)	10% or higher ( FY2012)
raigot	Net D/E Ratio	0.9 times or lower (FY2015)	1.0 times or lower (FY2012)
	CAPEX (plan)	1,300+α billion yen (FY2013-2015 total)	960 billion yen (FY2010-2012 total)
	*Utilizing "α" for addition environmental change	(F12010-2012 total)	

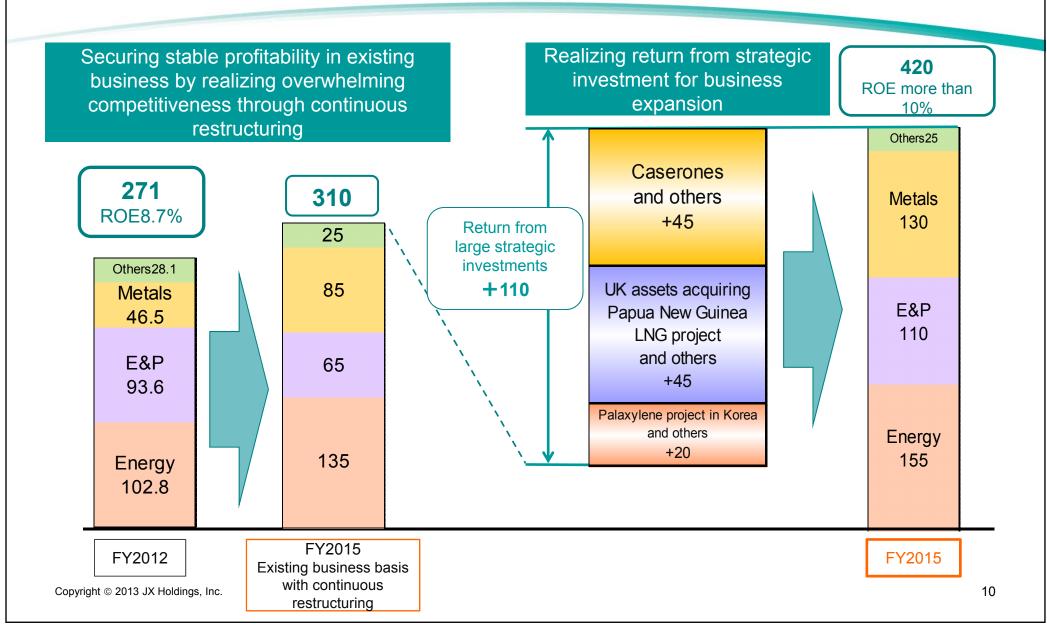
## Highlight of Major Projects







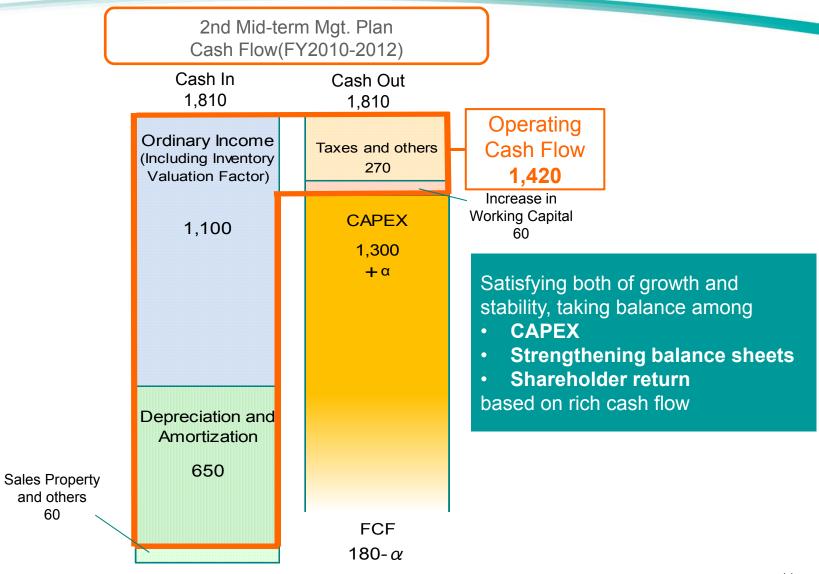
Earnings Plan(Ordinary Income Excluding Inventory Valuation Factor) (Unit: billion yen)



## Cash Flow Plan (FY2013-2015 total)



(Unit: billion yen)



and others 60

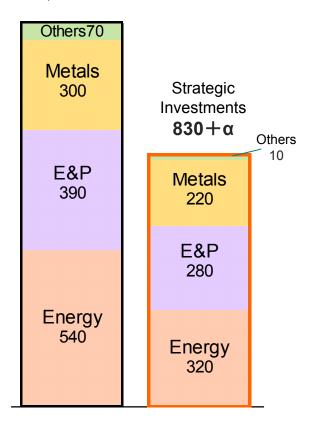
### **CAPEX Plan** (FY2013-2015)



(Unit: billion yen)

2<sup>nd</sup> Mid-Term Mgt. Plan (2013-2015) CAPEX

 $1,300 + \alpha$ 



<Main contents of strategic investments>

#### Energy

- > Petroleum Refining and Marketing :
  - · Energy saving in refineries
  - Utilization of bottom oil (Install of SDA)
  - · Muroran refinery(Convert to chemical factory)
  - Building strong sales network
- ➤ Electricity: Investment on Electric power facility (Using SDA pitch)
- Gas: Construction of LNG terminal (Hachinohe, Kushiro)
- > Coal: Development of coking coal in Canada
- > Basic Chemical Products : Paraxylene project in Korea
- > Lubricants : Base oil project in Korea
- > Specialty & Performance Chemical Products : Functional Chemicals

#### E&P

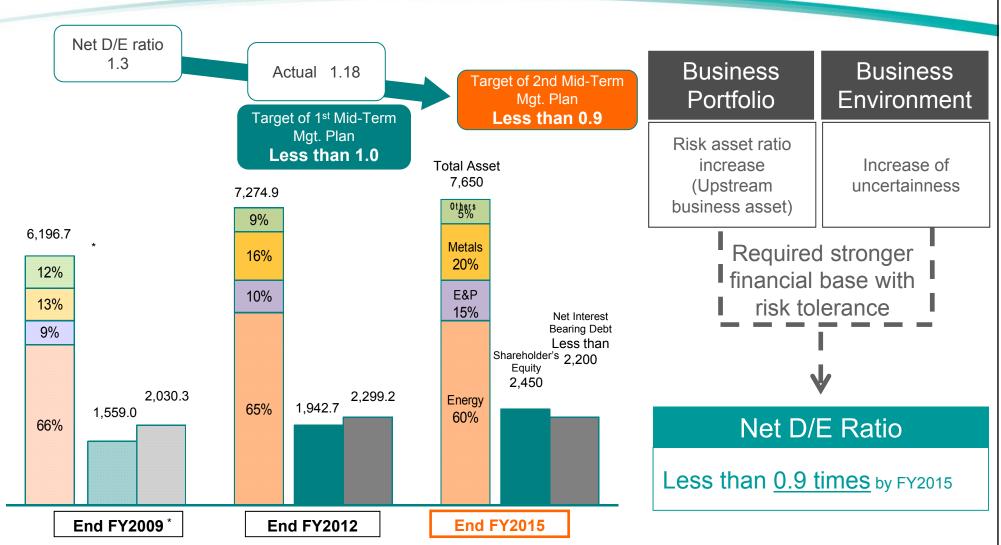
- > Exploration:
  - · Sado island south west offshore
  - Qatar block A
- > Development :
  - UK Mariner
  - · Papua New Guinea LNG
- Resource acquisition : Severely select and execute

#### E&P

- > Resource Development :
  - · Development of Caserones
  - · Proceeding exploration and FS of Quechua, Frontera, and others
- ➤ Electronic Materials, Recycling & Environmental Services :
  - Enhancing overseas business

#### Reinforcement of Financial Base





<sup>\*</sup>Asset segment ratio, as of Sep.2010

## 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, while considering shareholder return in view of such factors as business results, investment plans and financial position circumstances of balance sheet for each term.

#### Reference) Dividend from FY2010-2013

	2010	2011	2012	2013 (forecast)
Dividend (yen/share)	15.5	16.0	16.0	16.0

#### 3-1 Energy Business



## Petroleum Refining & Marketing/Energy Conversion

Business Environment Domestic petroleum demand decline and competition with import products continue

Basic Strategy

**Strengthening profitability of refining & marketing** 

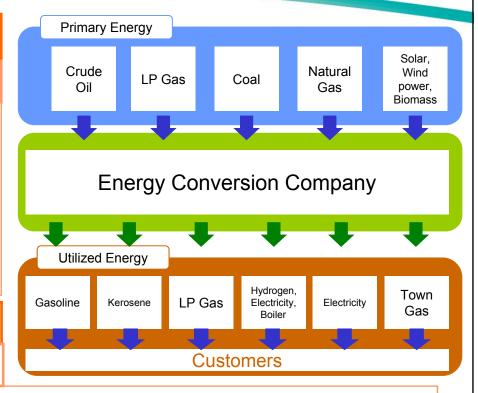
- Strengthening global competitiveness of refineries
  - · Safe and Stable operation
  - Cost reduction (Energy saving, Utilizing for bottom oil)
  - · Conversion to chemical factory
- Establishing strong supply chain
  - · Building strong sales network
  - Improving brand value (Introduce new Dr. Drive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

Business
Environment

Basic
Strategy

Reformation of energy policy by Japanese
government progress

Enhancing business as an energy conversion
company

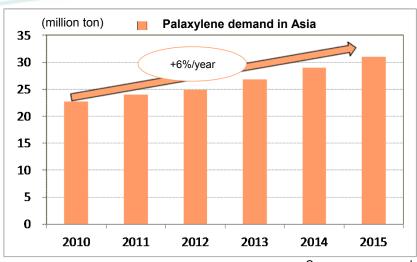


- Electricity: Business expansion corresponding to electric system reformation by Japanese government
- Gas: Construction of LNG terminal (Hachinohe & Kushiro) starting operation in 2015 (Enhancing providing base, Acquiring new demand)
- Coal : Development of coking coal in Canada , Increasing domestic 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

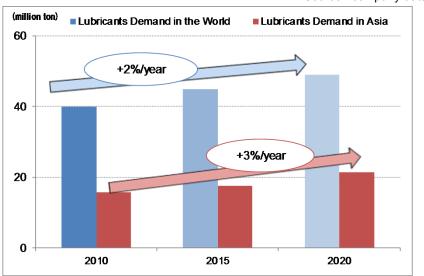
#### 3-1 Energy Business

# Basic Chemicals/Lubricants/Specialty & Performance Chemicals





Source : company data



Business Environment Energy and materials market continues to expand centering in Asia

## Basic Strategy

**Establishing presence in overseas market** 

- Basic Chemicals
  - Palaxylene 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 Environmen 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

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Source: company data

#### 3-2 Oil and Natural Gas E&P

## Expanding Reserves and Production Volume Mainly through Exploration



#### Business Environment

- Crude oil and natural gas demand increases firmly centered on emerging countries.
- Resources and energy prices stay high but volatile.
- · Competition for natural resources escalates.
- · Development technologies become more challenging.

#### Basic Strategy 1

Expanding reserves and production volume mainly through exploration

Toward production volume of 200 thousand BD in 2020

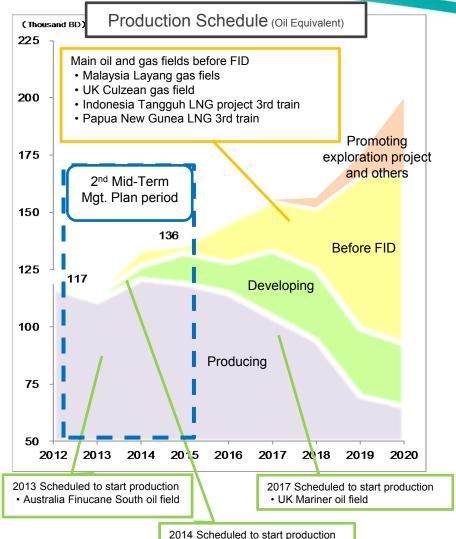
Shifting developing projects to production and projects before FID to developing

(On developing)

- · Papua New Guinea LNG project
- · UK Mariner oil field

#### (Before FID)

- UK Culzean gas field
- Indonesia Tangguh LNG project 3<sup>rd</sup> train
- Promoting large exploration operator projects (Investing 90billion yen in 3years)
  - Malaysia : Block SK333, Deepwater Block R offshore Sabah
  - Qatar : Block A
  - Japan: Exploration of Sado island south west offshore (2013)



- · Papua New Guinea LNG
- UK Kinnoull oil field

#### 3-2 Oil and Natural Gas E&P

# 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

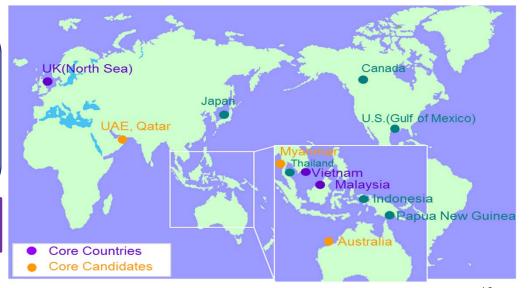
#### Core Technology

- Deepwater
  - Malaysia Deepwater Block R offshore Sabah
  - · UK West of Shetland offshore
- Enhanced Oil Recovery
  - Vietnam Rang Dong Oil Field HCG-EOR
- > Tight Oil, Tight Gas
  - Qatar Block A

#### Basic Strategy 3

Restructuring business portfolio responding to business environmental change

Rearranging asset portfolio timely





### Resource Development

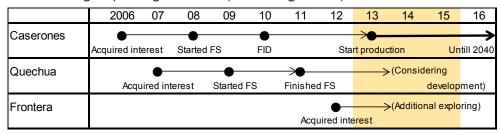
Business Environment

- · Copper demand increases centered on Asia.
- · Copper price stays at high level

Basic Strategy

Establishing highly profitable structure by enhancing copper mine interest

- Aiming 350 thousand ton per year of copper mine interest
  - Caserones: 2013 4Q- Start production of copper concentrate
  - Reconsidering Quechua (Peru) development
  - · Promoting exploring Frontera(Chile/Argentina)



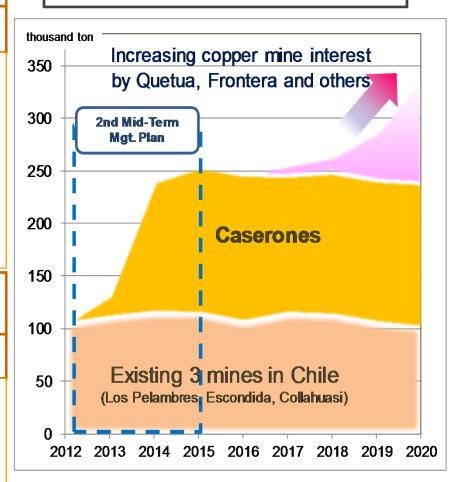
Business Environment Capital intensification and oligopolization of resource developers proceeds more challenging technology and funds for mine development

Basic Strategy

Acquiring mining interest utilizing original technology

- Developing next-generation smelting technology
  - Nikko Chloride Process (N-Chlo Process): Studying applying outcome of pilot plant in Australia to gold concentrate
  - Bio mining :Continuing study at Radomiro Tomic copper mine in Chile

#### Copper mine interest



#### 3-3. Metals





#### **Smelting & Refining**

**Business Environment** 

Drastic improvement of TC/RC is hardly expected though mine development proceeds.

**Basic Strategy** 

Establish 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 2<sup>nd</sup> copper concentrate and sulfuric acid careers.

#### **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 connecter production business (2013.4 Kakegawa Works start 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 lythium-ion batteries. Detoxication of materials containing a little PCB
- > Consolidating production site metal by metal and cost reduction

# Become a World's Leading Integrated Energy, Resources and Materials Business Group



#### Group mission statement

JX Group will contribute to the development of a sustainable economy and society through innovation in the areas of energy, resources and materials

# Target of JX Group (2020)

#### Become a world's leading integrated energy, resources and materials business group

- 1. Corporate group holding competitive businesses evaluated by global standards
- 2. Well-balanced businesses portfolio petroleum and non-petroleum, upstream and mid & downstream businesses

JX Group Values

Our actions will respect the EARTH

E thics

A dvanced ideas

R elationship with society

T rustworthy products/services

H armony with the environment

## Target of JX Group (2020)



### 1. Corporate group holding competitive business evaluated by global standards

### Energy

# Become a "Energy Conversion Company" providing energy stably and efficiently

- Generating stable profitability in refining & marketing
  - Establishing competitive supply chain (Refining, logistics, marketing)
- Establishing integrated energy supply structure
  - Electricity, Gas, Coal, Solar, Fuel Cell, Hydrogen
- Enhancing business in growing market
  - Basic Chemicals, Lubricants, Specialty & Performance Chemicals

#### Oil and Natural Gas E&P

# Become a sustainably growing E&P company mainly through operatorship

- Toward production volume of 200 thousand B/D
- Utilize worldwide human resources and knowledge efficiently
- More than 100% of reserve replacement ratio

#### Metals

# Become a global resources and materials company centered on copper

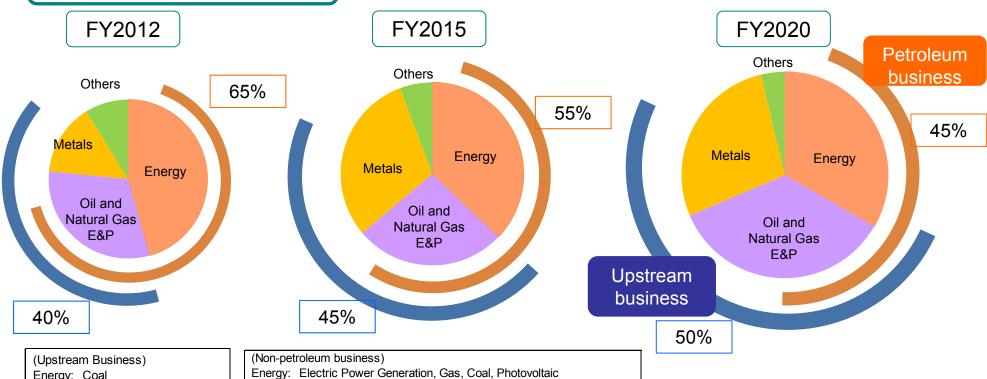
- Aiming 350 thousand ton per year of copper mine interest
- Establish smelting & refining business structure that has world top-class cost competitiveness
- Securing world's top share in each electronic material market
- Building domestic resource recycling system and developing overseas business

## Target of JX Group (2020)



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

Balance of ordinary income excl. inventory valuation



Energy: Coal E&P: All

Metals: Resources Development

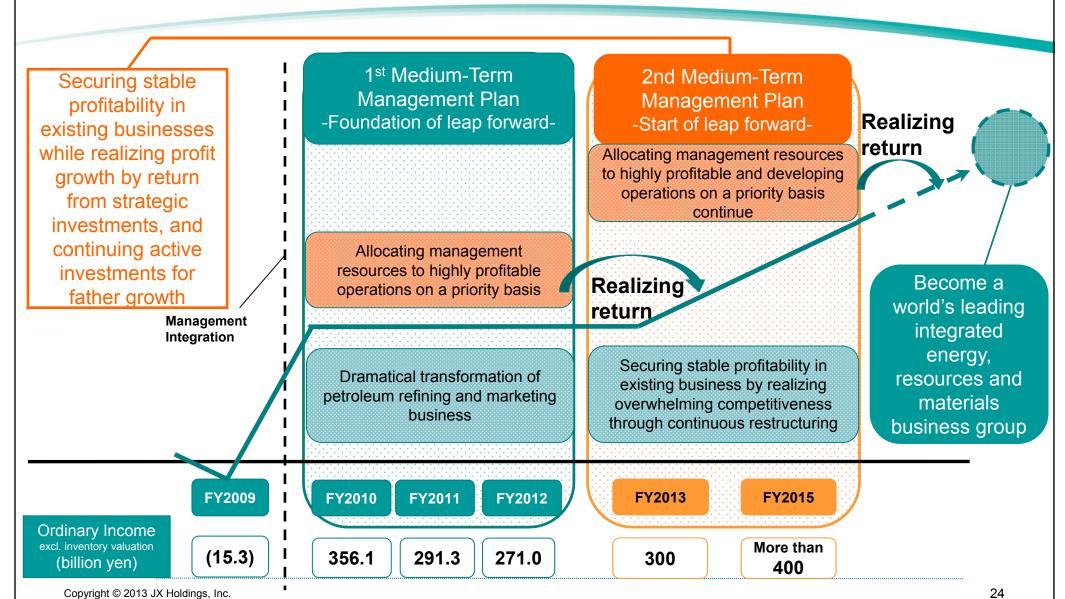
Power Generation, Fuel Cell, Specialty & Performance Chemicals

E&P: LNG Project (Malaysia, Indonesia, Papua New Guinea)

Metals: All









Supplementary Data

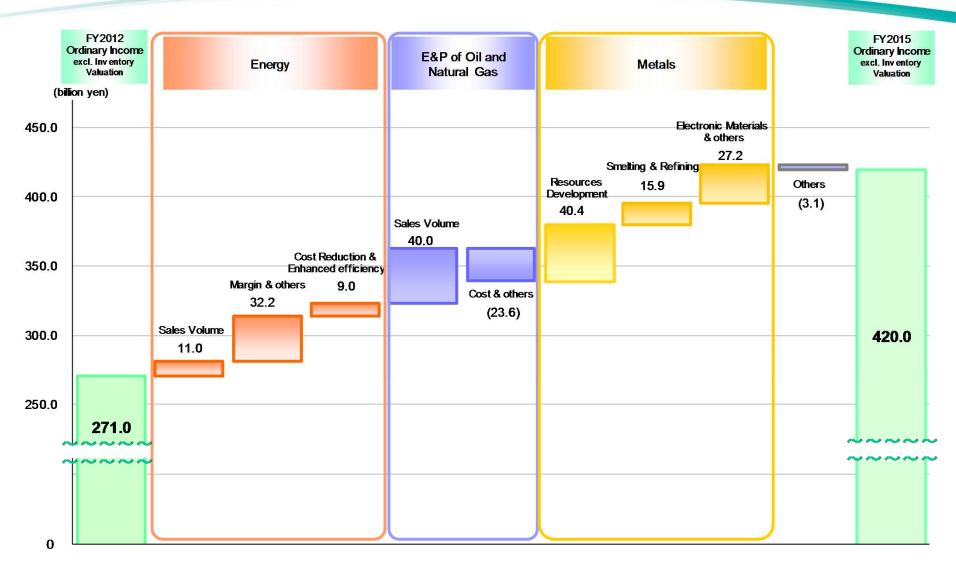


## Ordinary Income excl. Inventory Valuation

(JPY billion)	FY2012	FY2015
Ordinary Income excl. Inventory Valuation	271.0	420.0
Energy	102.8	155.0
Petroleum Products	56.1	100.0
Petrochemicals	46.7	55.0
Oil and Natural Gas E&P	93.6	110.0
Metals	46.5	130.0
Resources Development	26.6	67.0
Smelting & Refining	11.1	27.0
Electronic Materials	6.3	21.0
Recycling & Environmental Services	2.5	11.0
Titanium (Shifted to Metals from 2013)		4.0
Others	28.1	25.0

## FY2015(Forecast)vsFY2012(Forecast) Changes in Ordinary Income





## **Key Factors**



		FY2012	FY2015
All segments	Exchange rate [Yen/\$]	83	90
Energy	Crude oil price [Dubai] [\$/B]  Paraxylene spread [ACP] (vs. Dubai crude oil price of previous month) [\$/ton]	109 715	110 680
Oil and Natural	Sales volume <crude equivalent="" oil=""> [1,000 bbl/day]</crude>	117	136
Gas E&P	Crude oil price [Brent] [JanDec.] [\$/B]	109	110
	Copper price [LME] [JanDec.] [¢/lb]	361	360
	Equity entitled copper mine production [1,000 tons/period, year]	105	250
Metals	PPC refined copper sales [1,000 tons/period, year]	551	610
iviciais	TRCF*1 sales [1,000 km/month]	2.7	3.7
	Precision rolled products sales [1,000 tons/month]	3.3	4.0
	Gold recovery volume by Recycling & Environmental Services [tons/period, year]	5.8	7.4

<sup>\*1</sup> Treated Rolled Copper Foil

## Sensitivity Analysis(FY2015 Basis)



■ Key Factors (FY2015)

Exchange Rate:90Yen/\$

Crude Oil FOB:110\$/bbl

Copper Price:360¢/lb

(Dubai Spot)

■ Sensitivity analysis for FY2015 ordinary income

Key factors	Appreciation	Segment	(JPYBillion) Impact
Exchange Rate	+1 Yen/\$ yen depreciation	Energy (In-house Fuel costs rise, margin improvement in petrochemicals) Oil and Natural Gas E&P Metals (Margin improvement, FX rate) Subtotal Inventory valuation gain Total	0.0 2.0 1.5 3.5 7.5 11.0
Crude Oil FOB (Dubai spot)	+1\$/bbl	Energy (In-house Fuel costs rise) Oil and Natural Gas E&P Subtotal Inventory valuation gain Total	(1.5) 2.0 0.5 5.5 6.0
Copper Price (LME)	+10¢/lb	Metals Total	4.5 4.5





This notice contains certain forward-looking statements, however, actual results may differ materially from those reflected in any forward-looking statement, due to various factors, including but not limited to, the following:

- (1) macroeconomic conditions and changes in the competitive environment in the energy, resources and materials industries;
- (2) changes in laws and regulations; and
- (3) risks related to litigation and other legal proceedings.