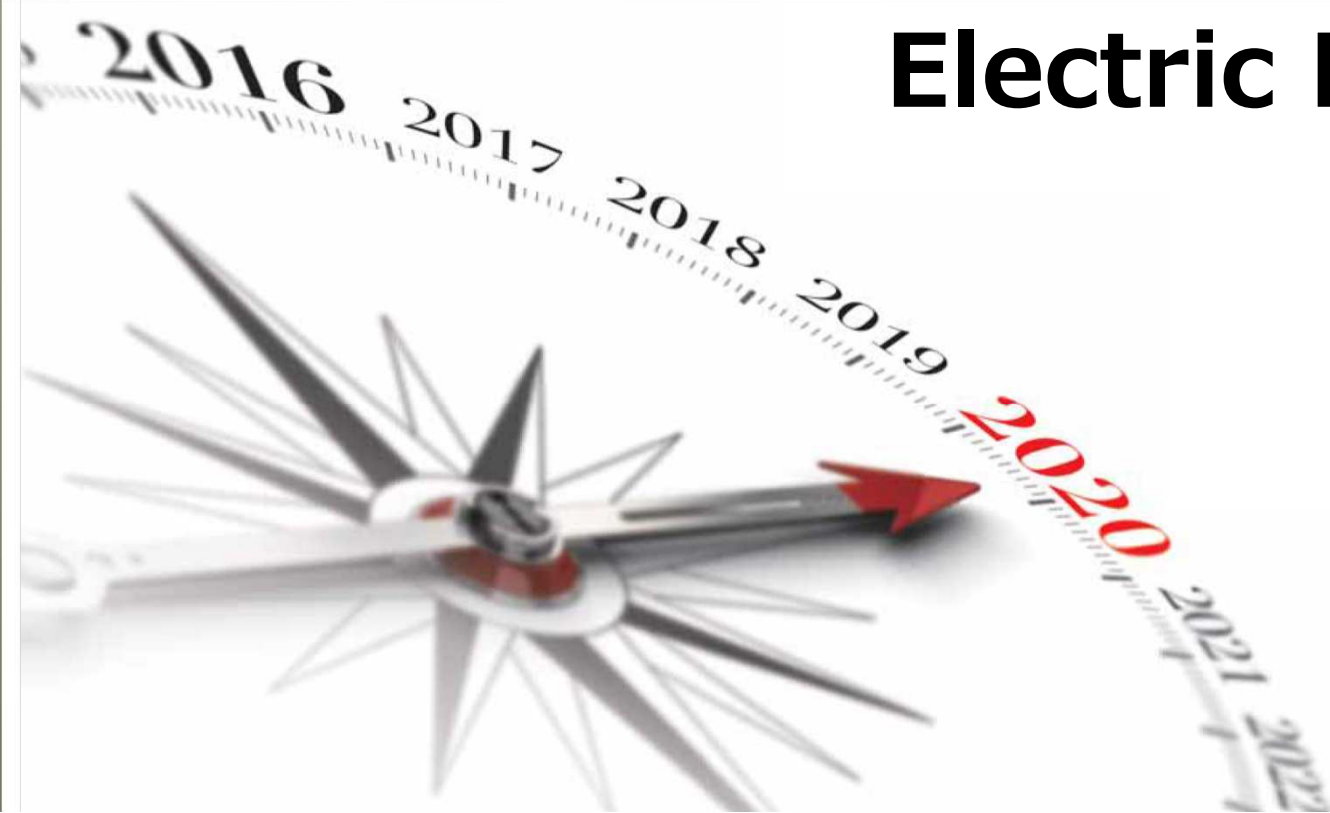




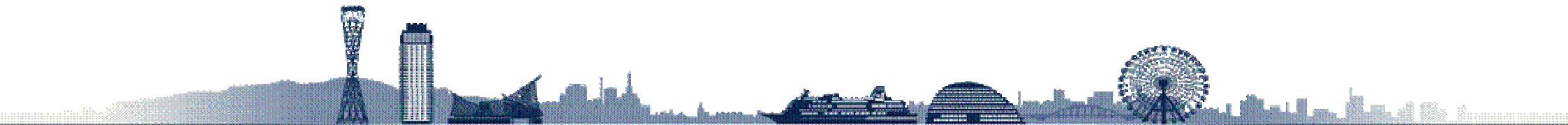
– Business Segment Briefing – Initiatives in the Electric Power Business

January 11, 2017

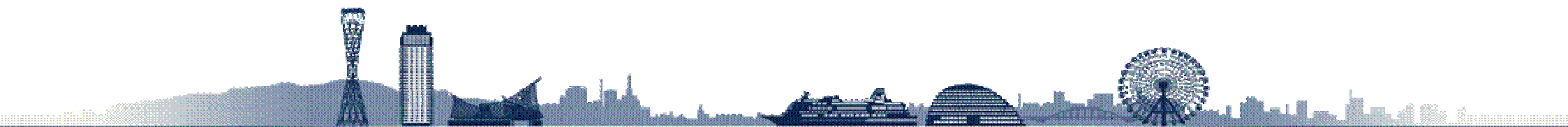


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- 1. Business Overview**
- 2. Business Environment**
- 3. Initiatives in Existing and New Projects**
 - ① Status of Existing Project**
 - ② Progress of New Projects**
- 4. Initiatives Aimed at Establishing
a Medium- to Long-Term, Stable Profit Base**



Introduction



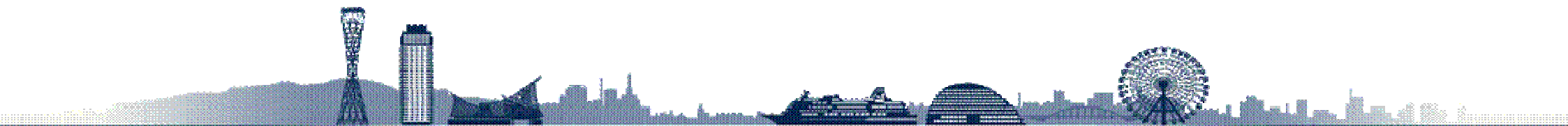
Introduction

Today's Topics

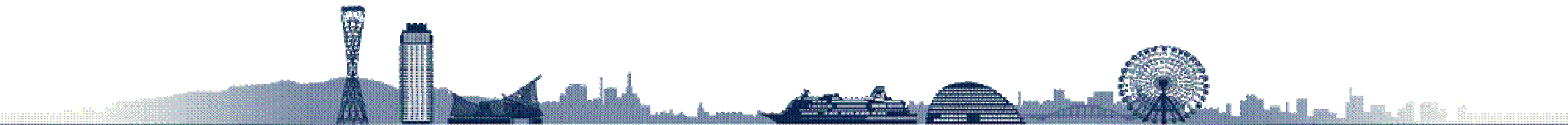
- ① **Kobe Steel has entered into a new power supply contract for the No. 1 unit and No. 2 unit of the Kobe Power Plant (contract extension). Kobe Steel is also steadily implementing new power generation projects.**

We see the Electric Power Business as a stable, long-term profit base supporting the growth strategy of our Medium-Term Management Plan. We also view the Electric Power Business as a way to establish the business portfolio we are aiming to achieve.

- ② **Image of profitability of the Electric Power Business at around 2023, when all new projects will have been launched.**



1. Business Overview



Position of the Electric Power Business in the Kobe Steel Group's Medium-Term Management Plan

Growth strategies for the three core business areas

Materials

- I. Initiatives for weight savings in transportation
- II. Strengthening profitability in the steel business

Machinery

- I. Initiatives in the fields of energy and infrastructure
- II. Strengthening profitability in the construction machinery business

Electric Power

Initiatives aimed at stable profitability in the electric power supply business

Today's
topic



Strengthening the business base

Common strategies

- I. Strengthening corporate governance
- II. Securing and developing human resources
- III. Strengthening technology development and *monozukuri* (manufacturing) capabilities

Position of the Electric Power Business

Position in the Medium-Term Business Plan: Continue stable operation of current power supply business and promote new projects to build a stable, long-term profit base.

Strengths of the Electric Power Business: Located in an urban setting (Kobe). Uses existing facilities (land, wharf and unloaders at the steelworks). Uses technology and know-how amassed over many years in in-house power generation.

Electric Power Business: Established in April 2016

Segment sales and ordinary income

Materials

- Iron & Steel
- Aluminum & Copper
- Welding

Machinery

- Machinery
- Engineering
- Construction Machinery

Electric Power

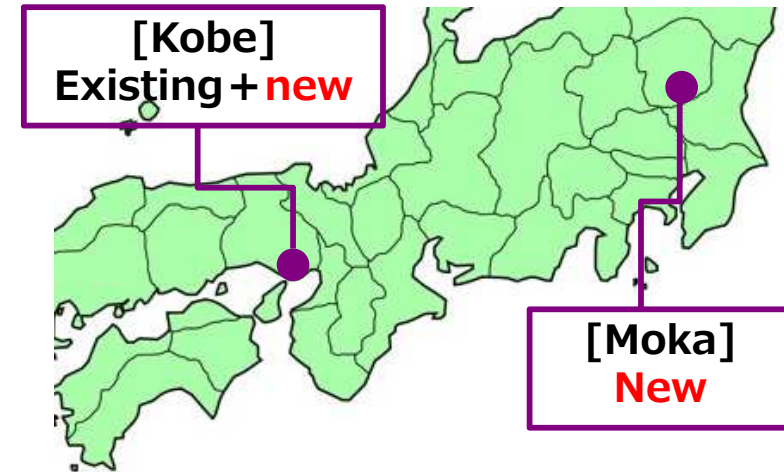
- Electric Power

| | FY 2016 (Forecast) | | | |
|------------------------|-----------------------------------|--------------------|--|--------------------|
| | Net sales (Billions of yen) | Composition (%) | Ordinary income (Billions of yen) | Composition (%) |
| Iron & Steel | 610 | | △ 30.0 | |
| Aluminum & Copper | 81 | | 6.5 | |
| Welding | 320 | | 10.0 | |
| Materials | 1,011 | 60% | △ 13.5 | -135% |
| Machinery | 157 | | 4.5 | |
| Engineering | 125 | | 2.5 | |
| Construction Machinery | 305 | | △ 1.0 | |
| Machinery | 587 | 35% | 6.0 | 60% |
| Electric Power | 70 | 4% | 15.0 | 150% |
| Adjustment | 22 | 1% | 2.5 | 25% |
| Total | 1,690 | | 10.0 | |

Business Description and Partners

Specializing in the wholesale power supply business:

Specializing in the wholesale power supply business to provide contract partners with a large amount of electricity on a stable, long-term basis.



Specializing in the wholesale power supply business

| | Contract Partner | Generation Capacity | Start of Operation | Terms of Contracts |
|---|-------------------------------------|---|--|--|
| (Existing) Nos. 1 & 2 units in Kobe | The Kansai Electric Power Co., Inc. | <u>1.4 million kW</u> (0.7 million kW×2) | No. 1 unit: April, 2002 No. 2 unit: April, 2004 | Current: 15 years After Renewal: About 10 years |
| [New] Nos. 1 & 2 units in Moka | Tokyo Gas Co., Ltd. | <u>1.248 million kW</u> (0.624 million kW×2) | No. 1 unit: 2H 2019 No. 2 unit: 1H 2020 | 15 years |
| [New] Nos. 3 & 4 units in Kobe | The Kansai Electric Power Co., Inc. | <u>1.3 million kW</u> (0.65 million kW×2) | No. 3 unit: FY2021 No. 4 unit: FY2022 | 30 years |

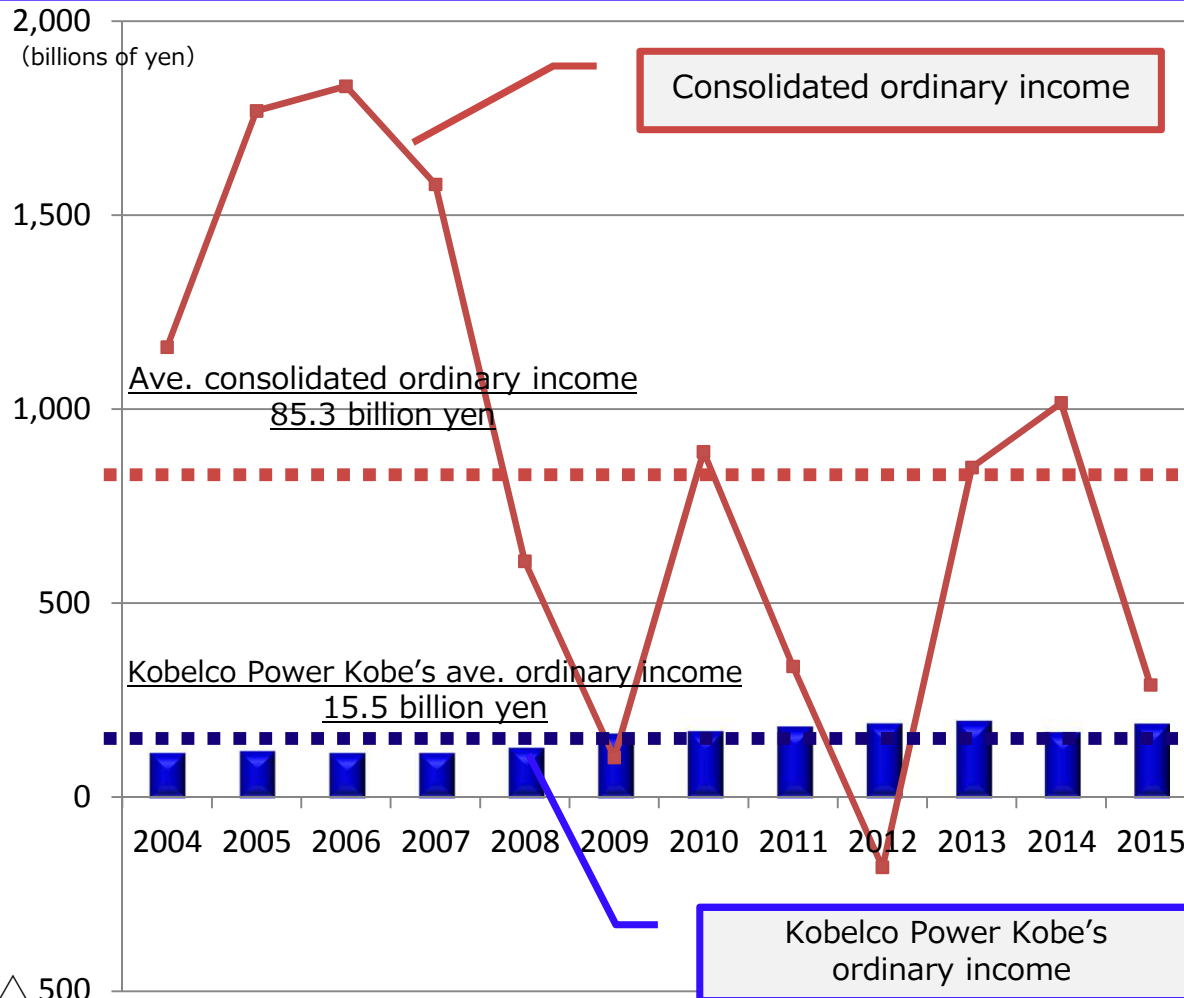
Total: **3.95 million kW**

Business Performance and Results to Date

Contribution to the Group's earnings:

- Acquired expertise in power supply business from stable operation.
- Stable profits from the Nos. 1 and 2 units in Kobe contribute to the Group's earnings.

(Ave. ordinary income of Nos. 1 & 2 units: 14.8 billion yen)



Contracts Formed for Projects

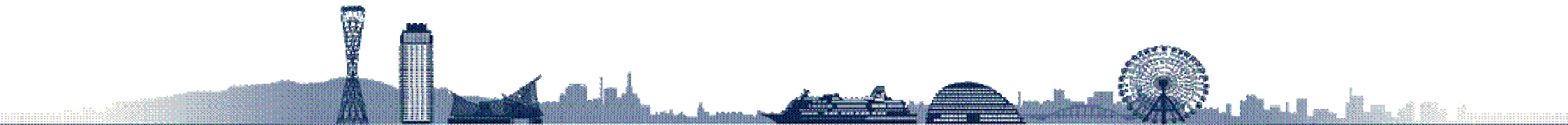
- 2002:** Wholesale power supply business is launched
Kobe No. 1 unit starts up
- 2004:** Kobe No. 2 unit starts up
- Sep. 2014:** Formed supply contract with Tokyo Gas for Moka Nos. 1 & 2 units
- Mar. 2015:** Formed supply contract with KEPCO*1 for Kobe Nos. 3 & 4 units
- Jan. 2016:** Established Kobelco Power Moka to operate Moka Nos. 1 & 2 units.
- Dec. 2016:** Extended contracts with KEPCO for Kobe Nos. 1 & 2 units.

↓
Kobe Nos. 1 & 2 units are currently in full operation.

Moka and new Kobe projects are proceeding as planned

*1 KEPCO: The Kansai Electric Power Co., Inc.

2. Business Environment

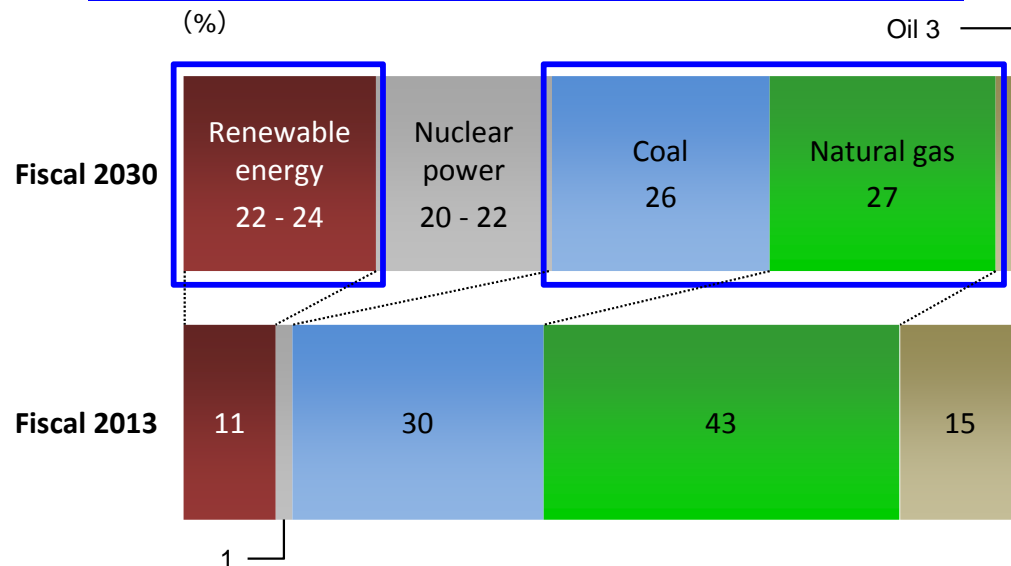


Japan's Energy Policy Amid the Changing External Environment

Japan's Energy Policy: Japan's energy policy has entered a period of huge transition. Revision of the Electricity Business Act in 1995 gave approval to the wholesale power supply business. After the Great East Japan Earthquake in 2011, retail electricity sales were completely deregulated in 2016. In 2020, Japan plans to separate power production from distribution and transmission. In 2015, Japan indicated its policy goals to be achieved simultaneously for safety, stable supply, economic efficiency and environmental adaptability looking ahead to 2030.

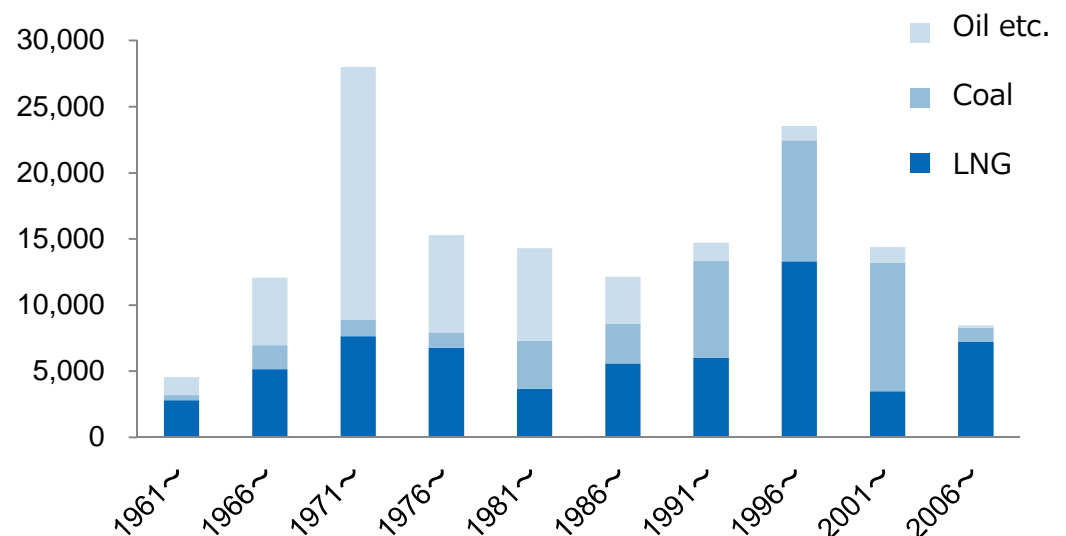
Shift to High-Efficiency Power Plants: Although domestic power demand is not anticipated to grow in the future, it will remain at a constant level. As facilities are aging, it is vital to shift to state-of-the-art, high-efficiency power plants.

Ideal power generation structure in 2030
(Ministry of Economy, Trade and Industry)



Source: Nippon.com

Operation starting times of domestic thermal power plants



Source: Agency for Natural Resources and Energy

Significance of Kobe Steel's Power Generation Business

**Power generation structure in FY2030 (best mix):
Coal and natural gas are important fuel sources**



[Effective utilization of Kobe Steel's business infrastructure]

Nos. 1 & 2 units, Nos. 3 & 4 units in Kobe (coal)

- Uses land, wharf and unloaders at the steelworks. Uses technology and know-how from in-house power plant operation.
- Urban power plant near demand area (Less transmission loss)

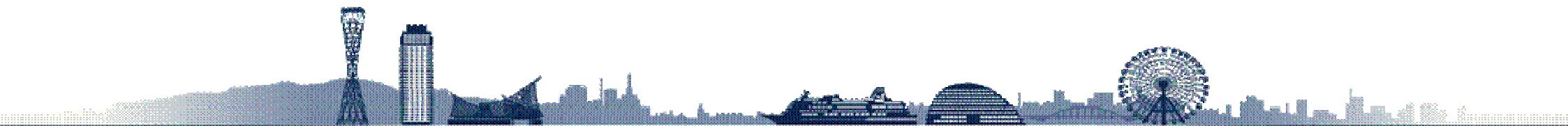
Nos. 1 & 2 units in Moka (city gas)

- Uses technology and know-how from in-house power plant operation
- Japan's first full-scale power plant located inland. (Backup for metropolitan area)



Our electric power business contributes to Japan's energy policy.

3. Initiatives in Existing and New Projects



Extension of Contracts for Nos. 1 & 2 Units in Kobe

We extended our contracts with Kansai Electric Power Co., Inc. on Dec. 21, 2016 to continue delivery of electricity.

The current contracts are to expire in March 2017 for the No. 1 unit and March 2019 for the No. 2 unit.

【Contract summary】

| | |
|--------------------|--|
| Contract term: | About 10 years No. 1 unit from April 2017 No. 2 unit from April 2019 |
| Contract partner: | Kansai Electric Power Co., Inc. |
| Capacity: | 1.4 million kW (0.7 million kW×2) |
| Generation Method: | Pulverized coal-fired, supercritical pressure power generation (SC) |
| Fuel: | Coal ※ Price fluctuations of coal are reflected in the fuel cost. |

Features of Nos. 1 & 2 units in Kobe

- Location in an urban setting reduces transmission loss.
- Generation capacity covers about 70% of Kobe City's peak electricity demand.
- Competitive position through use of existing facilities (land, wharf and unloaders at the steelworks) and use of technology and know-how in in-house power plant operation



Progress of New Project in Moka ①

【Project summary】

Plant site: 1 Kinugaoka, Moka, Tochigi
Site area: Approximately 9 ha
Capacity: 1.248 million kW (0.624 million kW× 2)
Method: Gas turbine combined cycle
(Gas turbine and steam power generation)
Fuel: City gas (supplied by Tokyo Gas)
Generation efficiency: Approximately 60%
Start of supply(planned):
No.1 unit: 2H 2019, No. 2 unit: 1H 2020

【Contract】 Signed in Sep. 2014

Contract partner: Tokyo Gas Co., Ltd.
Term of supply: 15 years
A tolling formula is used so that Kobe Steel assumes no risks in fuel procurement and price changes.

【Operating company】 Established in Jan 2016

Company name: Kobelco Power Moka, Inc.
Capital: 600 million yen
(owned 100% by Kobe Steel)

Features of Nos. 1 & 2 units in Moka

- **Japan's first full-scale inland thermal power plant**
(Selected as a pioneering initiative in Cabinet Secretariat's publication "Case Studies of Private-Sector Initiatives in Building National Resilience")
 - ❑ Few earthquakes in in-land areas with no danger from tsunami
 - ❑ Use of city gas supply network (Tokyo Gas Ibaraki-Tochigi Line, Hitachi LNG Terminal)
 - ❑ Use of air-cooled condensing system that does not need cooling water (seawater, etc.) for steam
- **Meet 40% of power demand in Tochigi**
- **Use of technology and know-how from in-house power plant operation**

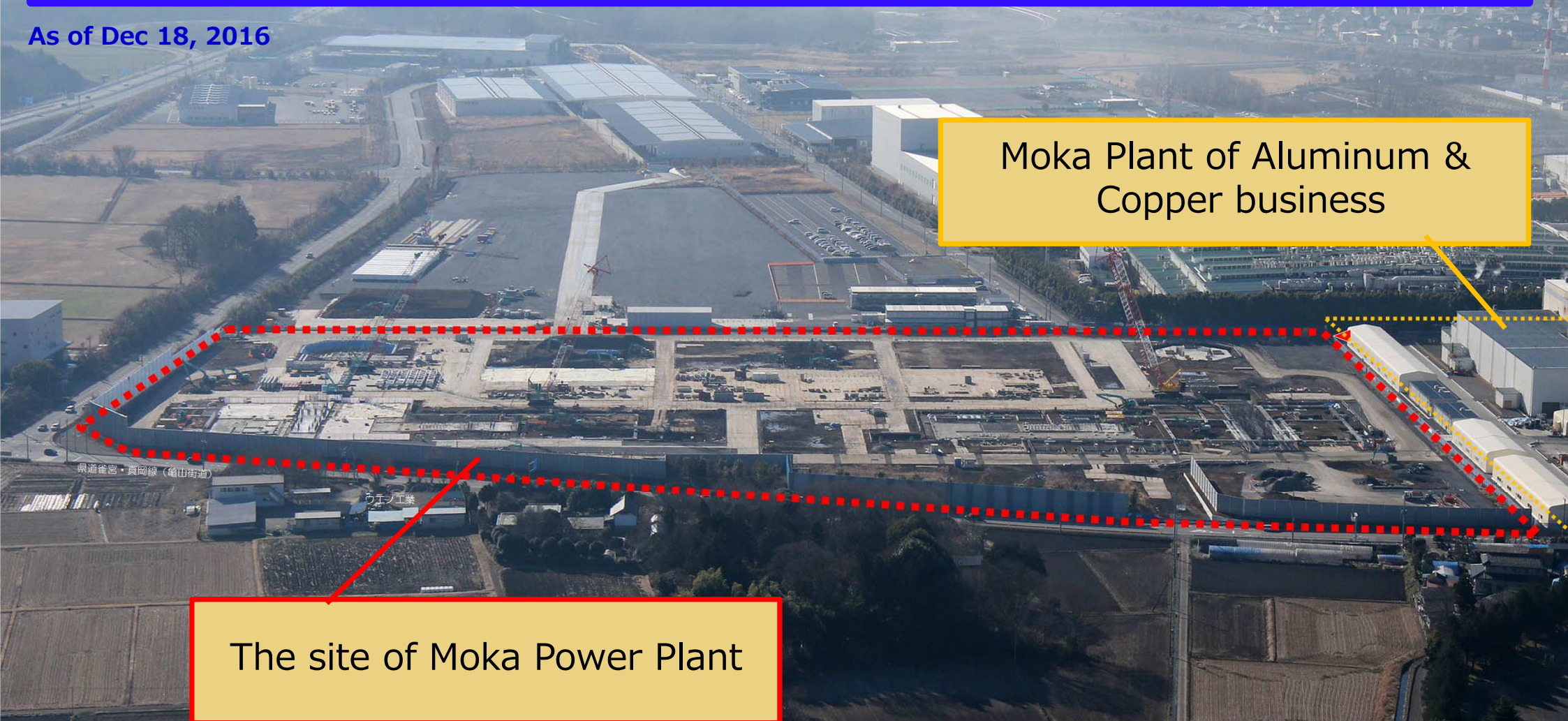
Progress of New Project in Moka ②

- Procedures for environmental assessments ended in May 2016.
- Construction is now underway as planned.
- No.1 unit is scheduled to start operation in the second half of 2019.
No.2 unit is scheduled to start operation in the first half of 2020.

As of Dec 18, 2016

Moka Plant of Aluminum & Copper business

The site of Moka Power Plant



Progress of New Project in Moka ③

Gas turbine combined cycle (GTCC)

○ Process & Features

This method combines a gas turbine with a steam turbine to provide one of the highest levels of power generation efficiency. The expansion force of high temperature and pressure from combustion rotates the gas turbine to generate electricity.

At the same time, exhaust heat from exhaust gas is used to generate steam in a boiler. The steam is fed to a steam turbine to also generate electricity.

Progress of New Project: Nos. 3 & 4 units in Kobe ①

【Project summary】

| | |
|----------------------------|---|
| Plant site: | On the site of the Kobe Works' blast furnace |
| Site area: | Approximately 20 ha |
| Capacity: | 1.3 million kW (0.65 million kW×2) |
| Method: | Coal-fired, ultra-supercritical pressure power generation (USC) |
| Fuel: | Coal |
| Generation efficiency: | Approximately 43% |
| Start of supply (planned): | No. 3 unit, from FY2021 No. 4 unit, from FY2022 |

【Contract】 (Signed Mar. 2015)

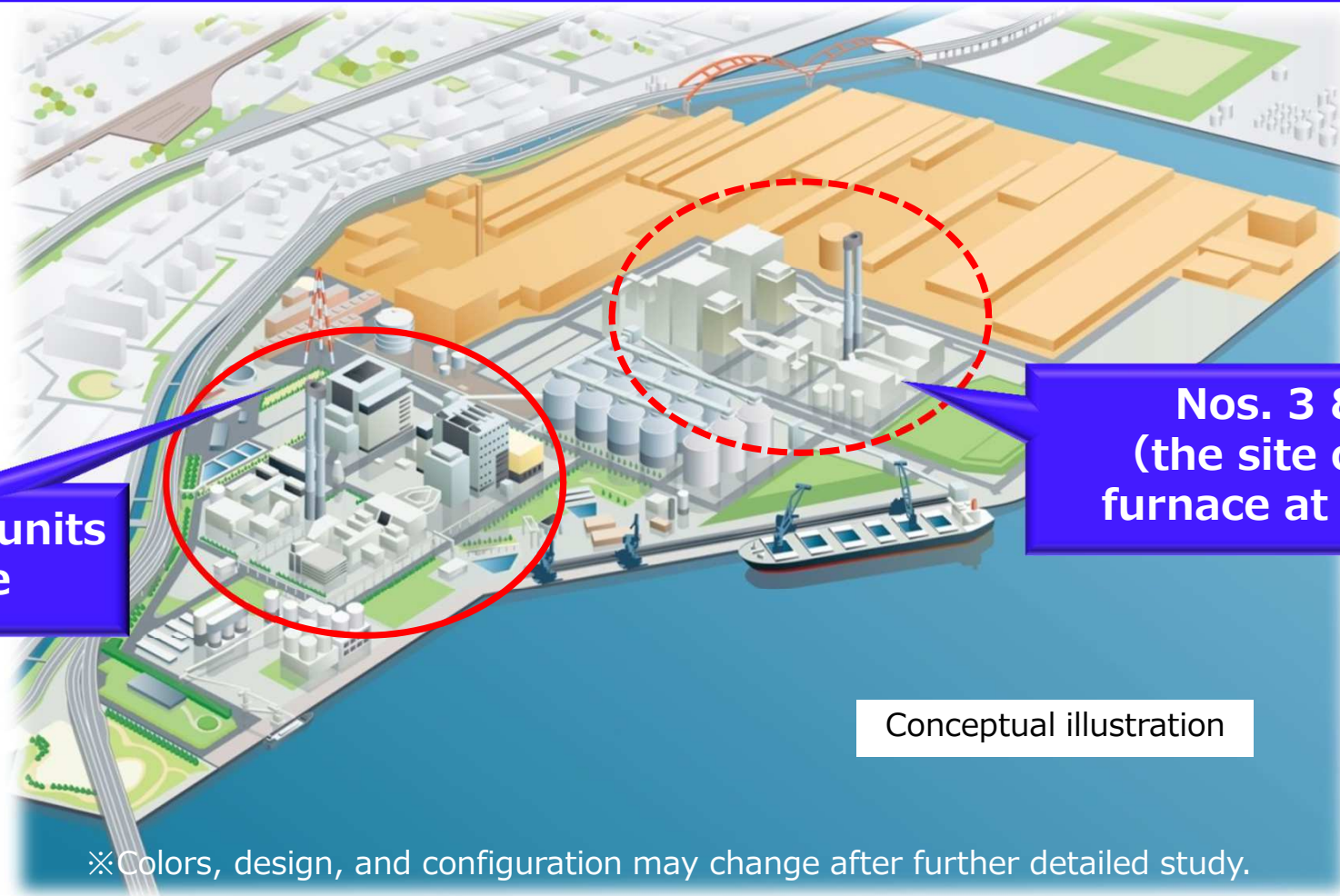
| | |
|-------------------|---------------------------------|
| Contract partner: | Kansai Electric Power Co., Inc. |
| Term of supply: | 30 years |

Feature of Nos. 3 & 4 in Kobe

- Use of the site of the blast furnace at Kobe Works
- Location in an urban setting reduces transmission loss.
- Higher self-sufficiency for electricity in Kobe and Hanshin area
- Competitive position through use of existing facilities (land, wharf and unloaders at the steelworks) and use of technology and know-how in in-house power plant operation

Progress of New Project: Nos. 3 & 4 units in Kobe ②

- Environmental assessment began in Dec. 2014 with completion aimed at spring 2018.
- Design work is underway with the general contractor and equipment manufacturers. Construction to begin in summer 2018.
- Start-up of No. 3 unit to begin in FY2021. Start-up of No. 4 unit to begin in FY2022.



Nos. 1 & 2 units
in Kobe

Nos. 3 & 4 units
(the site of the blast
furnace at Kobe Works)

Conceptual illustration

※Colors, design, and configuration may change after further detailed study.

Progress of New Project: Nos. 3 & 4 Units in Kobe ③

Pulverized coal-fired, ultra supercritical (USC) pressure power generation

○ **Process & Features**

In this process, efficiency improves when steam temperature and pressure increases, contributing to energy savings and CO2 reduction.

Ultra supercritical pressure power generation occurs at steam temperatures above 593°C, resulting in higher efficiency and a lower burden on the environment.

Fund Procurement and capital investment payments for New Projects

Fund procurement through project finance: Project finance provides 76 billion yen of the roughly 100 billion yen total investment for the No. 1 unit and No. 2 unit at Moka. (Contract entered on Mar. 31, 2016)

- Project finance is organized by a financial group of 17 banks including Mizuho Bank, The Bank of Tokyo-Mitsubishi UFJ and Sumitomo Mitsui Banking Corporation as the lead arranging banks, trust banks and regional banks. Owing to the stable operation of the No. 1 unit and No. 2 unit in Kobe, Kobe Steel has obtained a more advantageous loan scheme and better terms and conditions.
 - Through project finance, Kobe Steel is able to procure a large amount of project funds over the long term and can establish a business base at an early stage. The Moka operation serves as collateral. As Kobelco Power Moka, Inc., a specific purpose company, is the main operating body, the project receives the off-balance sheet benefit from the rating evaluations from rating agencies. The aim is not to affect Kobe Steel's financial position.
- ⇒ Project finance is also under consideration for the No. 3 unit and No. 4 unit in Kobe.

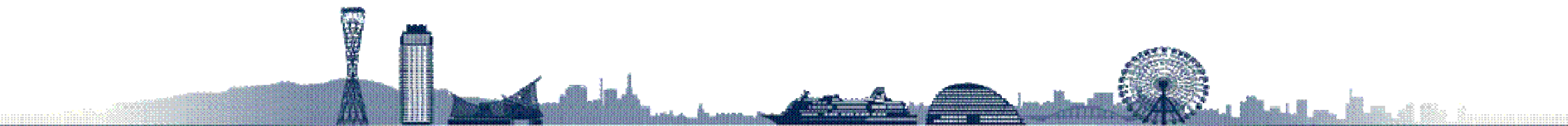
Electric Power Business: Capital investment payments

(Unit: in billions of yen)

| FY2016 | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | Total |
|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| 12.0 | 23.0 | 34.0 | 110.0 | 32.0 | 75.0 | 39.0 | 14.0 | 339.0 |

※ Includes capital investments for No. 1 unit and No. 2 unit in Kobe

4. Initiatives Aimed at Establishing a Medium- to Long-Term, Stable Profit Base



Initiatives Aimed at Establishing a Medium- to Long-Term, Stable Profit Base

Contracts concluded for electric power supply
(Nos. 1 & 2 units in Kobe with contract extension)

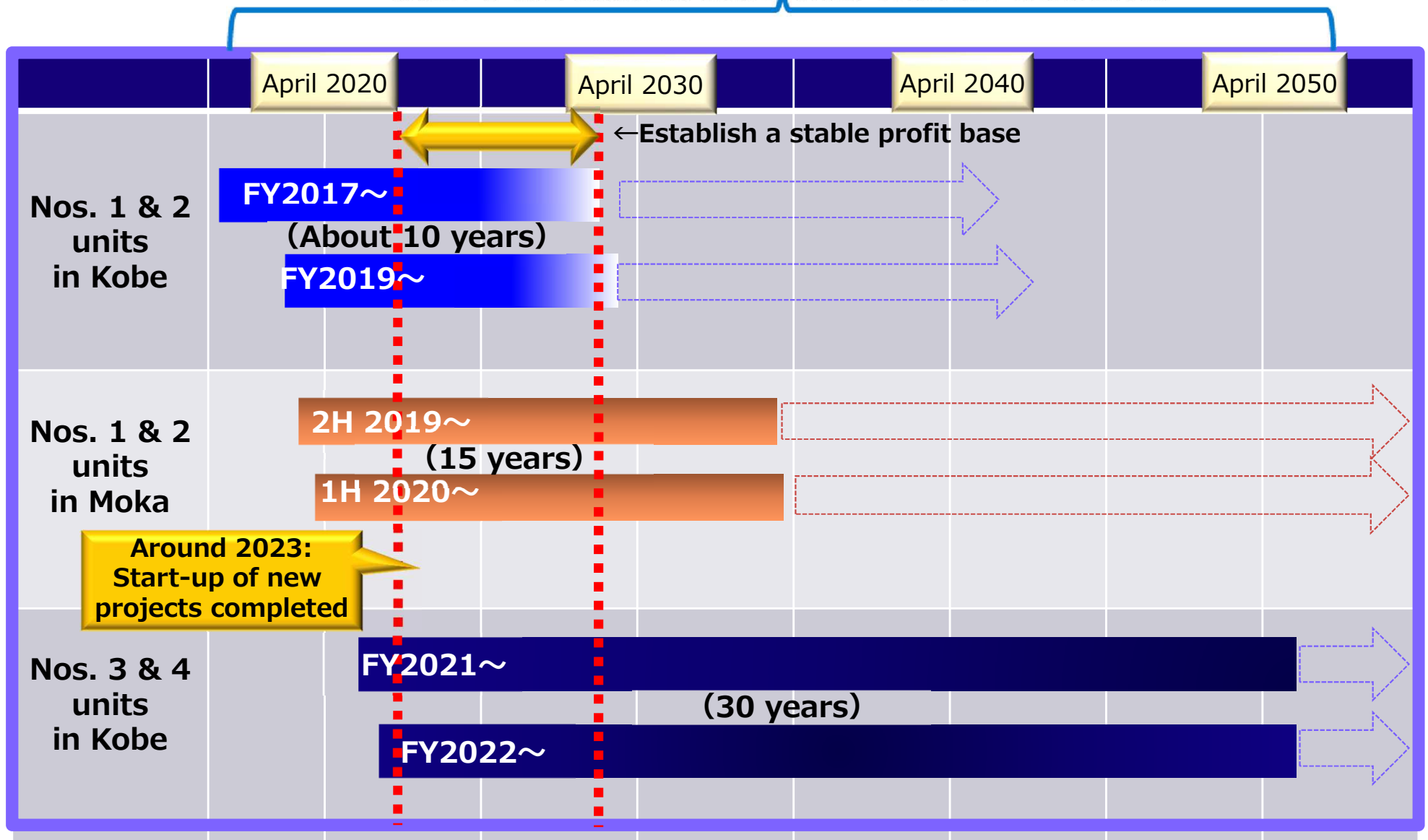
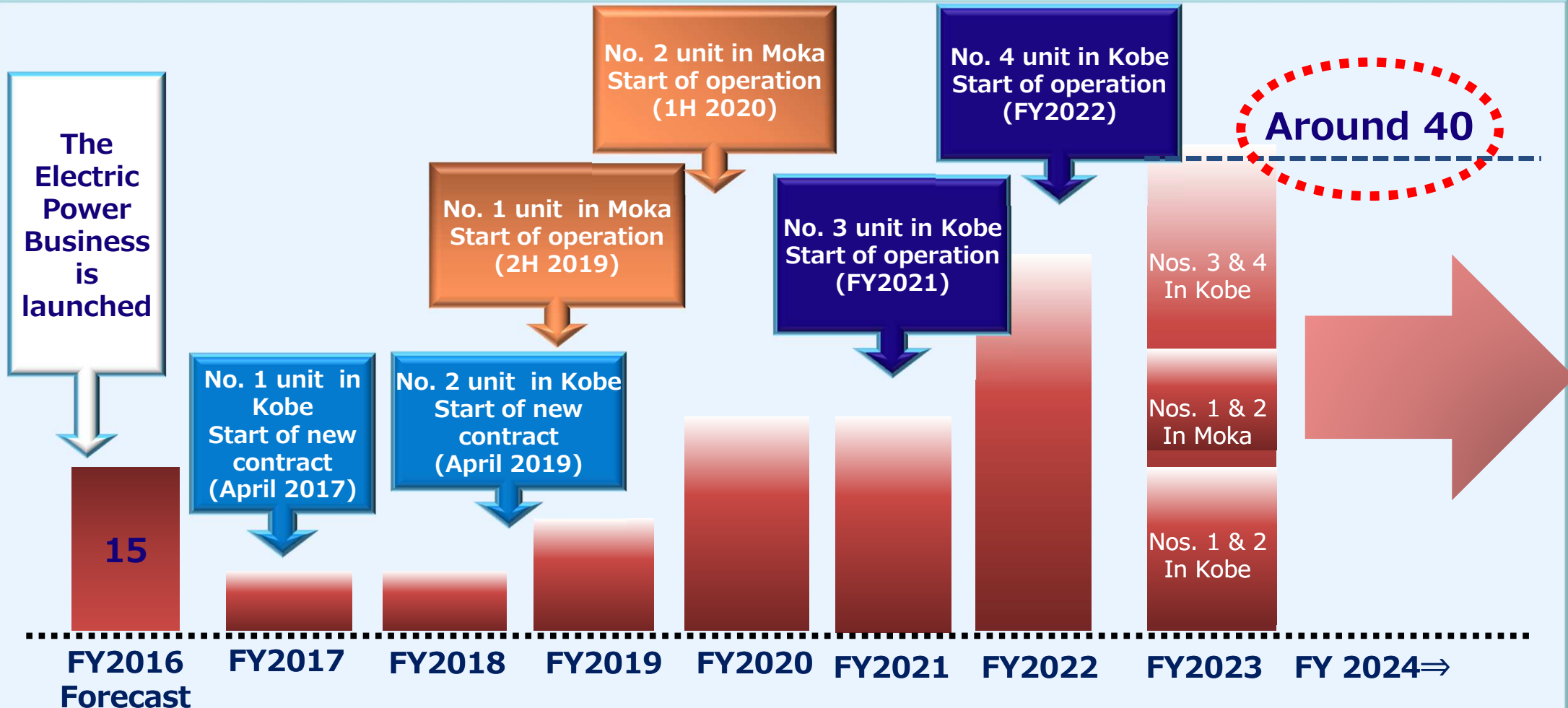


Image of Profitability in the Electric Power Business

In billions of yen



※ Image of profitability includes head office expenses of about 2-3 billion yen. It allows for anticipatory expenses and other one-time expenses until new projects are completed.

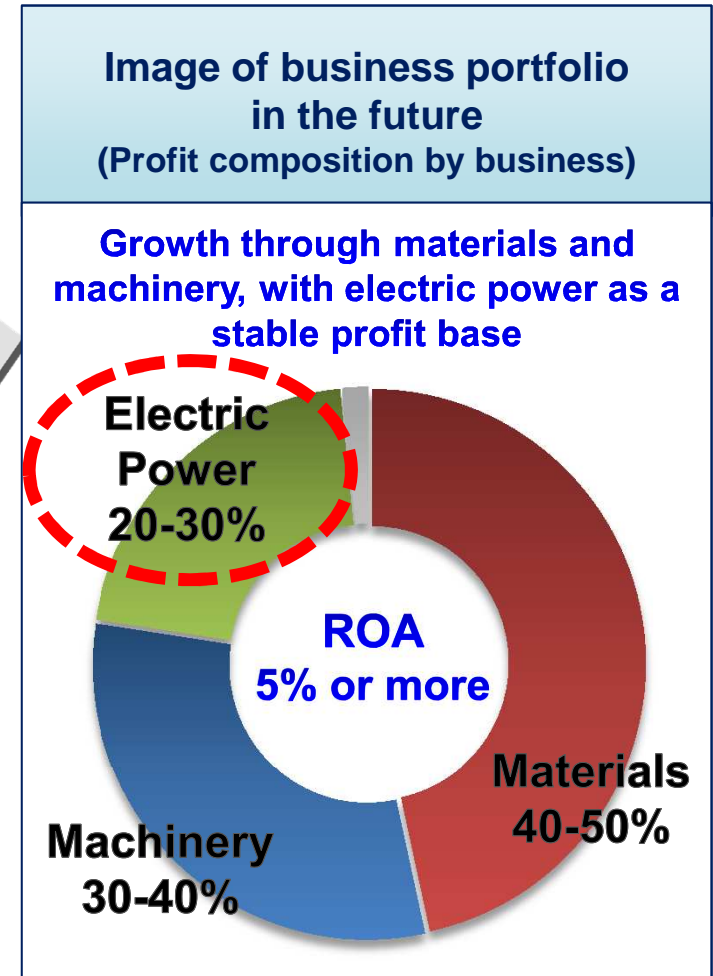
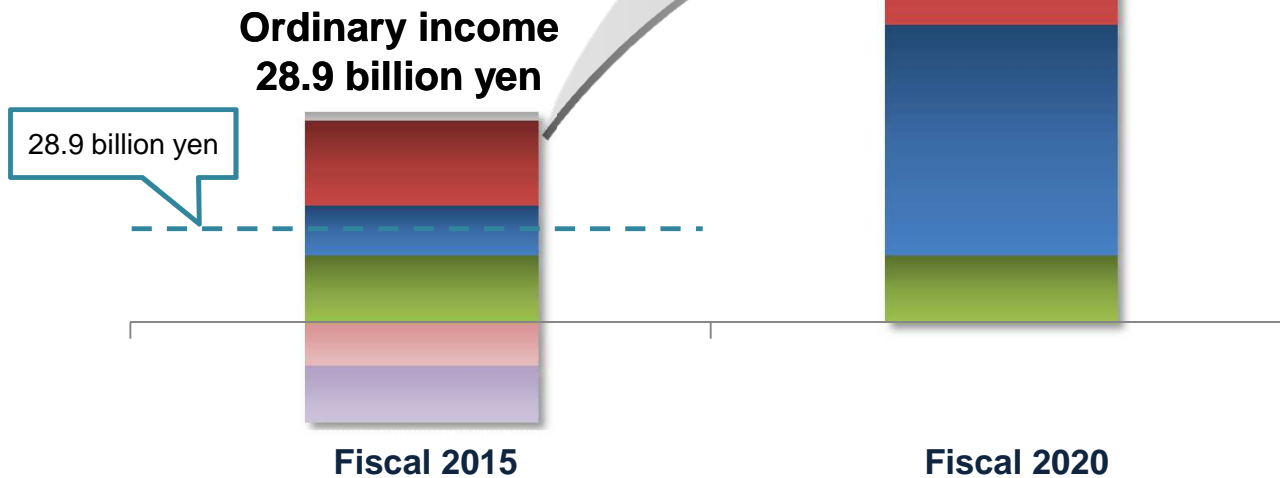
Establish a stable profit base

FY2016-2020 Medium-Term Management Plan Management Targets

KOBELCO VISION "G+"

KOBELCO VISION "G"

- **Materials** (fiscal 2015 excludes steel)
- **Machinery** (fiscal 2015 excludes Kobelco Construction Machinery)
- **Electric Power**
- **Other**
- Steel (fiscal 2015)
- Kobelco Construction Machinery (fiscal 2015)



Around FY2023

THE KOBE STEEL GROUP'S CORPORATE PHILOSOPHY

- 1. We provide reliable and advanced technologies, products and services that satisfy customers.**
- 2. We support each employee in developing his or her abilities, while respecting mutual cooperation within the Kobe Steel Group.**
- 3. Through continuous efforts for innovative change, we aim to enhance our corporate values.**

Cautionary Statement

- **Certain statements in this presentation contain forward-looking statements concerning forecasts, assertions, prospects, intentions and strategies. The decisions and assumptions leading to these statements were based on information currently available to Kobe Steel. Due to possible changes in decisions and assumptions, future business operation, and internal and external conditions, actual results may differ materially from the projected forward-looking statements. Kobe Steel is not obligated to revise the forward-looking contents of this presentation.**
- **Uncertain and variable factors include, but are not limited to:**
 - **Changes in economic outlook, demand and market conditions**
 - **Political situation and trade and other regulations**
 - **Changes in currency exchange rates**
 - **Availability and market conditions of raw materials**
 - **Products and services of competing companies, pricing policy, alliances, and business development including M&As**
 - **Strategy changes of alliance partners**