

## **JFE Group's Sixth Medium-term Business Plan**

### Maximizing Comprehensive Strengths to Make Great Leaps Forward

The JFE Group has formulated its sixth medium-term business plan, which lays out strategic guidelines for the period from April 1, 2018 to March 31, 2021.

#### I. Overview

During the previous medium-term plan (April 2015 – March 2018), the JFE Group enhanced its competitiveness through measures such as strengthening its domestic profit base. The Group also strengthened corporate governance and environmental management, and worked to establish a corporate structure conducive to sustainable growth. As for financial and profitability metrics, however, the Group did not achieve its ROE target of more than 10% owing to factors including sluggish demand in certain areas and problems with equipment that led to lower production levels.

Current economic conditions are sound both in Japan and abroad as global economies continue to expand. We believe that well-timed responses to structural changes in the automotive and the environment & energy fields—key fields for the Group—and the utilization of advanced digital technologies will enable the Group to take advantage of new business opportunities and strengthen its competitiveness. At the same time, potential concerns include Japan's declining birthrate and the aging of its population, wide fluctuations in the prices of raw materials and other resources, the rising risk of trade protectionism and other changes in the external environment. Meanwhile, international efforts are underway to implement global frameworks for a more sustainable future, such as the United Nations adopting sustainable development goals (SDGs) and the Paris climate accord coming into effect. Accurately assessing and swiftly responding to these external developments will be crucial.

Our sixth medium-term business plan strategically addresses growth areas by making maximal use of leading-edge technological capabilities, advanced IT, Group coordination and a diverse workforce. By increasing the Group's value over the medium/long term and contributing to sustainable societies, the JFE Group aims to achieve its corporate vision of "contributing to society with the world's most innovative technology."

The plan's key undertakings are outlined below.

#### II. Main Measures

##### 1. Group-wide Measures

###### **(1) Pursue growth by meeting social needs with leading-edge technologies**

To address increasingly sophisticated and diverse needs in society, we will strengthen coordination within the Group and make effective use of external resources to drive innovative research and development to produce leading-edge technologies. We will also actively deploy data-science technologies—including AI, IoT and big data—and robotics, to greatly improve productivity and enhance our competitive edge.

We see business opportunities in trends that are taking place in the automotive field, such as lighter vehicles and the shift to EVs, and structural changes in the energy & environmental field, so we intend to respond by making well-timed strategic investments, deploying leading-edge technologies and expanding operations-focused projects.

To combat global warming and contribute to recycling societies, we will aim to provide processes for saving resources and energy, products and solutions.

## **(2) Continue to expand domestic profit base and strengthen manufacturing capabilities**

For future growth, we will systematically make domestic capital investments on a level exceeding that of our previous medium-term results. Facilities will be renovated for stable production, cost reductions and enhanced competitiveness, as well as to broaden our profit base by expanding capacity and capabilities for developing and manufacturing high-grade steel.

In areas of ongoing structural change, we will carefully assess customer needs and draw on our Group's comprehensive strengths to deliver highly value-added products and services when and where they are needed.

## **(3) Advance overseas business and expand overseas profit base**

Under the sixth medium-term plan, we will implement activities to focus on expanding the profit base by ensuring that investment projects initiated during the previous plan begin operating. Through effective vertical specialization in conjunction with domestic business and by using our Group network (e.g., steel sheet and construction materials business in Myanmar), we will build optimal supply chains and manage projects according to local needs for maximized profitability.

In addition to expanding profits in existing investment projects, we will execute new project investments in priority areas and strategic regions. At present, we expect to invest around 100 billion yen in new projects under the sixth medium-term business plan, but we are prepared to invest beyond this level if other projects offer attractive benefits.

## **(4) Strengthen business structure for sustainable growth**

### **a. Continuously address ESG issues**

We will address a range of environmental, social and governance (ESG) issues to contribute to sustainable societies, a key priority.

**Environmental:** Global environmental protection is one of our top concerns, so we will continue to reduce environmental loads by reducing CO2 emissions in steelmaking processes, reusing water and energy resources, developing environmentally friendly products and process technologies, and providing resource-recycling solutions.

**Social:** Providing products and services of superior functionality and quality helps to enrich society, so recruiting and developing people who can make this possible is crucial. In accord with the Basic Policy on Human Resources Management laid out in our previous medium-term plan and in our JFE Group Health Declaration, we will continue to create workplaces where our diverse workforce can demonstrate its full potential. Initiatives will include instituting workstyle and operational reforms, developing human resources and ensuring that technical skills are passed on, and promoting diversity.

**Governance:** To date, we have formulated a Basic Policy on Corporate Governance, established a nomination committee and remuneration committee, partially revised the structure of our board of directors and audit & supervisory board based on evaluations of their effectiveness and the results of those evaluations, and taken other steps to enhance governance. We continue to enhance the transparency and fairness of Group management by ensuring the effectiveness of these initiatives, we engage in two-way communication with stakeholders and we are stepping up information disclosure.

In addition to these ongoing activities, we will also take the following new initiatives:

- Set key performance indicators (KPIs) for CSR priorities, including customer service, environmental protection, employment health & safety and human resources development, and work to attain these goals through our operating companies.
- Introduce an executive pay scheme linked to medium/long-term financial performance

- Issue an Integrated Report to enhance communication with stakeholders

b. Recruit diverse human resources and create workplaces where they can demonstrate their full potential

We will continue to recruit and develop diverse people to implement our sixth medium-term business plan. To ensure that all Group employees can demonstrate their full potential, we will continue to pursue workstyle reforms by instituting health-conscious management practices and carrying out operational reforms through the proactive use of advanced IT (data science technologies, logistics technologies and robotic process automation [RPA]), the revamping of systems, and so forth.

Recruiting outlook (nonconsolidated basis, approximate figures)

JFE Steel	830 people per year
JFE Engineering	150 people per year
JFE Shoji Trade	60 people per year

c. Financial/profitability targets and returns to shareholders

We aim to achieve a return on equity (ROE) of 10% by strengthening the domestic profit base and expanding overseas profitability, for which measures already are being implemented. We will also work to improve earnings and cash flow to achieve a financial standing equal to the level required by international credit agencies for an A-grade rating (the target is a debt/EBITDA ratio of below 3x).

We are targeting 280 billion yen in consolidated ordinary income and 200 billion yen in profit attributable to owners of the parent. Measures will be implemented to meet and sustain these financial goals.

Our financial and profitability targets for the consolidated Group and individual operating companies have been set with respect to the specific characteristics of each business and the changing external environment. The goal is to achieve the targeted levels stably over the three-year term (average basis) rather than pointing exclusively to the plan's final year.

Returns to shareholders: The JFE Group aims to raise its dividend payout ratio from the current level of around 25–30% to around 30%.

Consolidated ordinary income	280 billion yen per year
Net profit attributable to owners of the parent	200 billion yen per year
Debt/EBITDA ratio	Around 3x

Total investment	Around 1,000 billion yen over 3 years (around 900 billion yen in Japan and 100 billion yen overseas)
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## 2. Basic Policies and Measures for Operating Companies

### (1) JFE Steel (steel business)

#### **Pursue growth through leading-edge technologies and strengthened manufacturing**

JFE Steel will develop technologies to meet the needs of society and customers and implement customer-oriented sales. By pursuing growth through leading-edge technologies and further cementing and expanding awareness of the JFE brand, JFE Steel aims to constantly create new

value and build a global supply chain for steel that grows in step with customers.

In Japan, rather than merely continue to maintain the production base, the company aims to dramatically strengthen its production capabilities by increasing capacity and maximizing performance, particularly at its West Japan Works. Overseas, the company will build out its global production operations and work to make even greater use of upstream facilities.

Consolidated ordinary income                      220 billion yen per year

a. Pursue growth through leading-edge technologies

To keep pace with technological innovations in the automotive field, such as lighter vehicles and the shift to EVs, JFE Steel will accelerate and evolve its technology development by focusing on high-tensile steel for products and solutions targeted at the priority fields of automobiles, infrastructure materials and energy.

JFE Steel aims to develop environmentally friendly production technologies, such as those for the eco-responsible processing of ferro-coke and other raw materials. Data-science technologies—such as AI, IoT and big data—and robotics, will be actively used in pursuing these objectives and addressing the needs of society and customers.

Research & development outlays              110 billion yen over 3 years  
(+10% vs. previous medium-term results)

Technology development guidelines for priority fields

- Automobiles: Respond to technological innovation for lighter vehicles and EVs
- Infrastructure: Respond to highly efficient construction
- Energy: Respond to demands for suitability in severe environments

b. Strengthen production capabilities

Under the previous medium-term plan, JFE Steel made large-scale investments to renew facilities (e.g., coke oven overhauls), fundamentally strengthen operations and stabilize production, aiming to swiftly strengthen production capabilities.

Under the sixth medium-term plan, while continuing with measures to fundamentally strengthen operations, JFE Steel will also make strategic capital investments that vastly exceed outlays made under the previous plan. To increase capacity and maximize performance, new continuous casting lines, etc. will be installed, particularly in the company's core West Japan Works. Also, innovative production technologies will be developed, focusing on upstream processes, to facilitate the use of inexpensive raw materials and the like.

Through these initiatives, JFE Steel aims to achieve stable annual crude steel production of 30 million tons and additional cost reductions of around 105 billion yen over the plan's three-year term. By stabilizing production in this manner, the company intends to pave the way to recovery and enhance the resilience of its production capabilities.

Crude steel production                              Stable at 30 million tons (JFE Steel, nonconsolidated)  
Cost reductions                                        105 billion yen over 3 years  
Domestic capital investment                      Around 850 billion yen over 3 years (+10% vs. previous  
medium-term results)

c. Pursue overseas business to shore up long-term growth

JFE Steel Group aims to continue expanding profitability with a focus on priority fields where efforts have been made to expand global production suited to the maturity of each region and

market. In Asia’s high-growth economies, in addition to pursuing traditional vertical specialization, JFE Steel will build integrated production operations in high-demand markets to make greater use of upstream facilities.

Main investments slated to enter operation in sixth medium-term plan (start-up target in parentheses)

- Automobiles                      Nucor-JFE Steel Mexico (2019)—Mexico: CGL  
Shanghai Baowu JFE Clean Iron Powder (2018)—China: iron powder
- Infrastructure                      JFE Meranti Myanmar (2020)—Myanmar: CGL
- Energy                                AL Gharbia Pipe (2018)—UAE: large-diameter welded steel pipe
- Integrated steelworks            Formosa Ha Tinh Steel (2018)—Vietnam: No. 2 blast furnace  
JSW Steel (2018)—India: Dolvi Works extended project
- Resource rights                    Byerwen Coal (2018)—Australia: coal mine (full-fledged shipments)

d. Implement sales and product lineup strategies to address customer needs

Besides strengthening production capabilities, etc. to handle volumes of any size, JFE Steel will further integrate product development and sales practices and build up capabilities to propose and deliver comprehensive solutions that customers truly need. Through these initiatives, the company aims to raise global brand recognition and continuously expand profitability.

e. Realize the full potential of human resources and workplaces

To cope with business expansion and a changing environment, JFE Steel will continue to employ diverse people, including women and non-Japanese nationals, and take steps to develop and enhance the technical skills of its human resources. It will continue to create appealing workplaces through workstyle reforms and operational reforms, namely, the overhaul of core steelworks systems.

## **(2) JFE Engineering (engineering business)**

### **Expand operations projects and tighten project management to enhance earnings**

In Japan, JFE Engineering will strengthen and expand projects encompassing operations and maintenance activities, in addition to existing engineering, procurement and construction activities. Overseas, the company will lay the foundations for stable earnings with a focus on urban infrastructure, the environment and energy. Risk-management practices will be tightened to ensure that projects are executed properly and generate returns. Through such measures, JFE Engineering aims to “Create” and “Underpins” the foundations for life.

Consolidated ordinary income	30 billion yen per year
Orders	600 billion yen (plan’s final year)

a. Expand operations projects

Through a consultative-solutions model that draws on a diverse array of energy sources—including waste products, biomass fuels, geothermal power and LNG—JFE Engineering will expand its operations projects in areas including public-private partnerships and energy services.

b. Develop and expand sales of new products

JFE Engineering aims to swiftly bring to market and expand orders for new products that address customer and market needs, such as high-efficiency waste-to-energy plants and AI solutions.

c. Achieve profitability in overseas business

Focusing on areas where the company has competitive advantages, such as waste incinerators (waste-to-energy), water-processing plants and steel structures (bridges, etc.), JFE Engineering will increasingly localize operations by transferring technology and designing functions and other means to strengthen its global engineering operations. The company will also carry out business suited to the characteristics of each region to expand orders and secure profits.

d. Improve productivity and institute workstyle reforms

JFE Engineering will continue to hire highly specialized career-track individuals while also pursuing technology development in step with broader trends—for example, using advanced IT for design and construction to promote efficiency—with the goal of streamlining operations and raising productivity. The company will also pursue workstyle reforms, such as introducing telecommuting and two-day weekends for construction sites.

### **(3) JFE Shoji Trade (trading business)**

#### **Build a stable profit base and expand profitability of trading and operating activities**

JFE Shoji Trade will further deepen coordination with other JFE Group companies to expand its existing profit base and generate future growth, ultimately for a stable and growing profit base.

Consolidated ordinary income 35 billion yen per year

a. Build a stable profit base

JFE Shoji Trade will fully utilize JFE Group resources to address customer and market needs and expand steel product sales volumes. It will also expand business outside of the Group to increase earnings from trading operations.

In addition to maintaining its steel supply chain, the company will work to expand profitability by strengthening its processing and distribution centers to capture demand, strengthening its corporate structure through operational reorganizations, etc., and expanding the scope of its activities.

b. Strengthen global/regional strategies

JFE Shoji Trade will strengthen operations under a four-region structure (Japan, Americas, China and ASEAN). Operations will continue to center on Japan, which will be responsible for optimizing sales/processing structure to meet needs in respective product categories/fields, and for formulating overseas strategies. To capture demand in growing markets, the functions of overseas operations will be expanded and enhanced, and coordination with the Group and among the company's offices will be strengthened.

c. Build operational foundations

To swiftly and flexibly respond to business expansion and changes in the external environment, JFE Shoji Trade will take steps to systematically develop core personnel, such as posting more young employees overseas, and further enhance business-risk management. The company will also utilize advanced IT, such as RPA and AI, to improve productivity, and will

step up efforts to further promote workstyle reforms and diversity.

Performance and Profitability Targets and Dividend Policy for Sixth Medium-term Business Plan

		6th medium-term plan targets	FY2017 actual (previous medium-term plan)
Entire Group	Consolidated ordinary income	280 billion yen / year	216.3 billion yen
	Profit attributable to owners of the parent	200 billion yen / year	144.6 billion yen
	Debt/EBITDA ratio	Around 3x	3.4x
Ordinary income by operating company	Steel business	220 billion yen / year	198.8 billion yen
	Engineering business	30 billion yen / year	19.3 billion yen
	Trading business	35 billion yen / year	33 billion yen

	6th medium-term plan	5th medium-term plan
Dividend Policy (dividend payout ratio)	Around 30%	Around 25-30%

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