



# News Release

March 5, 2021

Nippon Steel Corporation

## **Nippon Steel Corporation Announces Medium- to Long-term Management Plan**

With the aim of continually growing to become “the best steelmaker with world-leading capabilities” that contributes to Japan's industrial competitiveness from the present and into the future, Nippon Steel Corporation has developed its new medium- to long-term management plan.

### **I. Planning Policies**

Steel demand in Japan is expected to decrease due to its declining population, the expansion of overseas local production by Japanese customers, and other reasons. Global steel demand is expected to continue to grow steadily, particularly in Asia, and notably including India.

In Japan where demand is shrinking, we have maintained our domestic production capacity by raising our export ratio. However, it is now necessary to assume that the current business model will be difficult to sustain because competition in the overseas market is expected to intensify, mainly as demand in China, which represents 60% of the world's steel production, seems to have already peaked, while we are entering a period which will require our main steelworks to provide large-scale investments for renewal of their aging facilities.

In order to appropriately respond to these circumstances, in the domestic steel business we will thoroughly promote the strengthening of operations, notably by concentrated production through selection of products and facilities, thereby building a strong framework enabling us to manufacture products of the highest grade, in the form of mother mills which play a key role in our global steelmaking strategy. In the overseas steel business, we will expand our integrated production framework in the center of demand, such as by capacity expansion of AM/NS India, and ensure that local demand is captured in growing markets. By implementing these strategies, our plan is to achieve 100 million tons of global crude steel capacity per annum for the Nippon Steel Group (the “Group”) by combining the efforts of our mother mills in Japan and local mills located overseas.

In addition, we will continue to respond to climate change. In exerting our efforts toward a decarbonized society, we are taking on the bold challenge of developing and industrializing new CO<sub>2</sub> reduction technologies, in cooperation with various measures taken by the Japanese government, and aim to achieve carbon neutrality by 2050 in order to win competitions on the development of new CO<sub>2</sub> reduction technologies with Europe, the United States and China and to continue to lead the world's steel industry. We will also contribute to the realization of carbon neutrality in Japan by utilizing our technological and

product capabilities through development of and supply capacity increase of our high-performance products, such as ultra-high-tensile steel sheets for vehicle weight reduction, and high-performance electrical steel sheets for drive motors used in electric vehicles.

Moreover, we will push hard for digital transformation. We aim to become a digitally advanced company in the steel industry, and we will work on production and business process innovations and promote measures that contribute to the fundamental strengthening of decision-making and problem-solving capabilities through full use of digital transformation technologies and data.

## **II. Four Pillars of the Medium- to Long-term Management Plan**

Our medium- to long-term management plan has been developed with the following four pillars based on our policies described above:

1. Rebuilding our domestic steel business and strengthening our group's management
2. Promoting a global strategy to deepen and expand our overseas business
3. Taking on the challenge of zero-carbon steel
4. Promoting digital transformation strategies

Measures for all four pillars will be implemented according to our roadmap, and based on our long-term outlook. Particularly, with regard to pillar 1 (Rebuilding our domestic steel business and strengthening our group's management), our plan is to complete the relevant measures by the end of fiscal 2025 in order to establish an efficient and strong production framework at an early stage, and to rebuild the earnings base of our domestic mother mills.

## **III. Major Features of Specific Measures**

### **1. Rebuilding our domestic steel business and strengthening our group's management**

#### (1) Rebuilding our domestic steel business and early recovery of profitability

The Group's basic policies are "to realize a higher-level order mix through aggressive investment in strategic products," "to renew and improve facilities to ensure technological strength leading to profit generation," and "to make the production framework streamlined and more efficient by selective concentration on certain products and facilities." Based on these overall basic policies, we will strive to build an optimal production framework for our domestic steel business, strengthen our earnings base by re-establishing cost competitiveness, which will overwhelm our competitors, and secure appropriate margins.

For the purpose of building an optimal production framework, we will implement the following specific measures:

[Measures to streamline the production framework in manufacturing processes]

## 1) Plate business

To strengthen our steel plate business, in addition to the already-announced shutdown of the steel plate mill at the Nagoya Works, the steel plate mill in the East Nippon Works Kashima Area will be shut down, and its production will be transferred to the steel plate mills in the East Nippon Works Kimitsu Area and the Kyushu Works Oita Area.

|             | [Relevant steelworks]          | [Relevant facility] | [Time of shutdown]                       |
|-------------|--------------------------------|---------------------|--|
| Steel plate | East Nippon Works Kashima Area | Steel plate mill    | By around the second half of fiscal 2024 |

[Measure announced on February 7, 2020]

|             |              |                  |                                  |
|-------------|--------------|------------------|----------------------------------|
| Steel plate | Nagoya Works | Steel plate mill | By around the end of fiscal 2021 |
|-------------|--------------|------------------|----------------------------------|

Steel plate mills: [Before implementation of the measures] 4 mills

→ [After implementation of the measures] 2 mills

## 2) Construction products business

To strengthen our construction products business, the shape mills in the Kimitsu Area and Kashima Area of the East Nippon Works will be shut down, and their production will be transferred to the shape mills in the Kansai Works Wakayama Area (Sakai) and the Kyushu Works Yawata Area.

In addition, in the East Nippon Works Kimitsu Area, the continuous casting machine, which manufactures large-shaped steel pieces, will be shut down along with the shutdown of the shape mill.

|                       | [Relevant steelworks]          | [Relevant facility]                           | [Time of shutdown]               |
|-----------------------|--------------------------------|---|----------------------------------|
| Construction products | East Nippon Works Kimitsu Area | Shape mill<br>No.1 continuous casting machine | By around the end of fiscal 2021 |
|                       | East Nippon Works Kashima Area | Shape mill                                    | By around the end of fiscal 2024 |

Shape mills: [Before implementation of the measures] 4 mills

→ [After implementation of the measures] 2 mills

### 3) Pipe & tube business

#### A) Seamless steel pipe business

In the Kansai Works Wakayama Area (Kainan), of the two mills, East and West, the West small-diameter seamless pipe mill will be shut down in order to optimize and improve the efficiency of the production framework.

#### B) Large-diameter pipe business

We have decided to withdraw from the UO steel pipe business as we consider that there are no prospects for securing stable profit, taking into account the medium- to long-term demand outlook. As a result, the UO pipe mill in the East Nippon Works Kimitsu Area will be shut down.

|             | [Relevant steelworks]              | [Relevant facility]                      | [Time of shutdown]               |
|-------------|------------------------------------|--|----------------------------------|
| Pipe & Tube | Kansai Works Wakayama Area(Kainan) | Small-diameter seamless pipe mill (West) | By around the end of fiscal 2025 |
|             | East Nippon Works Kimitsu Area     | UO pipe mill                             | By around the end of fiscal 2021 |

Seamless pipe mills: [Before implementation of the measures] 3 mills

→ [After implementation of the measures] 2 mills

UO pipe mill: [Before implementation of the measures] 1 mill

→ [After implementation of the measures] None

### 4) Flat products business

Along with concentrating orders into competitive production lines, the measures below will be taken in order to become more oriented toward production close to centers of demand, in addition to the already-announced shutdown of the hot strip mill and the pickling line in the Setouchi Works Kure Area.

Some of the facilities of the hot-dip galvanizing line in the East Nippon Works Kimitsu Area and the pickling line in the Kashima Area of the same works will be shut down, and their production will be transferred to other lines in Kimitsu, Nagoya, and elsewhere.

|               | [Relevant steelworks]             | [Relevant facility]            | [Time of shutdown]                                       |
|---------------|-----------------------------------|--------------------------------|--|
| Flat products | East Nippon Works<br>Kimitsu Area | No. 1 hot-dip galvanizing line | By around the end of<br>fiscal 2024                      |
|               | East Nippon Works<br>Kashima Area | No. 1 pickling line            | By around the end of<br>the first half of fiscal<br>2022 |

Some of the hot-dip galvanizing lines in the Setouchi Works Hanshin Area (Sakai) will be shut down, and their production will be transferred to other production lines in Sakai and the Kyushu Works Yawata Area.

|               | [Relevant steelworks]                  | [Relevant facility]                               | [Time of shutdown]                  |
|---------------|--|---|-------------------------------------|
| Flat products | Setouchi Works Hanshin<br>Area (Sakai) | No. 1 hot-dip galvanizing line                    | By around the end of<br>fiscal 2024 |
|               |  | No. 1 hot-dip galvanizing and<br>aluminizing line | By around the end of<br>fiscal 2022 |

All facilities in the Setouchi Works Hanshin Area (Osaka) will be shut down and all of the flat steel sheet lines in the Kansai Works Wakayama Area will be shut down. Their production of high-carbon products will be transferred to the Setouchi Works Hanshin Area (Sakai). High-carbon products will be manufactured at two bases, the Setouchi Works Hanshin Area (Sakai) and Kyushu Works Yawata Area

|               |  |                                  |   |
|---------------|--|----------------------------------|---|
| Flat products | Setouchi Works Hanshin<br>Area (Osaka) | All lines                        | By around the end of the first half of<br>fiscal 2023 to the end of fiscal 2023 |
|               | Kansai Works<br>Wakayama Area          | All of flat steel<br>sheet lines | By around the end of the first half of<br>fiscal 2024                           |

[Measure announced on February 7, 2020]

|               |                             |                                     |   |
|---------------|-----------------------------|-------------------------------------|---|
| Flat products | Setouchi Works Kure<br>Area | Hot strip mill and<br>pickling line | By around the end of the first half of<br>fiscal 2023 |
|---------------|-----------------------------|-------------------------------------|---|

Hot strip mills: [Before implementation of the measures] 7 mills

→ [After implementation of the measures] 6 mills

Cold-rolling mills: [Before implementation of the measures] 17 mills

→ [After implementation of the measures] 15 mills

Galvanizing lines: [Before implementation of the measures] 19 lines

→ [After implementation of the measures] 16 lines

## 5) Titanium and special stainless steel<sup>1</sup> business

1: Ultra-thin stainless steel sheet (around 0.2 mm in thickness) used in the precision processing field of automotive parts, electronic devices, etc.)

To improve the efficiency of the production framework, some manufacturing facilities of special stainless steel sheet products will be shut down at the East Nippon Works Naoetsu Area and their production will be transferred to the Yamaguchi Works (Shunan Area) of Nippon Steel Stainless Steel Co., Ltd.

Moreover, in addition to the already-announced shutdowns of the titanium round bar manufacturing special facility in the Kansai Works Osaka Area and the titanium welded pipe manufacturing line in the Kyushu Works Oita Area (Hikari Pipe & Tube), the titanium raw material plant in the Kansai Works Osaka Area will be shut down.

|                         | [Relevant steelworks]          | [Relevant facility]                                    | [Time of shutdown]                                 |
|-------------------------|--------------------------------|--|--|
| Special stainless steel | East Nippon Works Naoetsu Area | Cold-rolling mill, annealing and finishing lines, etc. | By around the end of fiscal 2021                   |
| Titanium                | Kansai Works Osaka Area        | Titanium raw material plant                            | By around the end of the first half of fiscal 2022 |

[Measures announced on February 7, 2020]

|          |   |   |  |
|----------|---|---|--|
| Titanium | Kansai Works Osaka Area                     | Titanium round bar manufacturing special facility | By around the end of fiscal 2022                   |
|          | Kyushu Works Oita Area (Hikari Pipe & Tube) | Titanium welded pipe manufacturing line           | By around the end of the first half of fiscal 2021 |

Special stainless steel cold-rolling mills: [Before implementation of the measures] 4 mills

→[After implementation of the measures] 2mills

Titanium raw material plant: [Before implementation of the measures] 1 plant

Titanium round bar manufacturing special facility: [Before implementation of the measures] 1 line

Titanium welded pipe manufacturing line: [Before implementation of the measures] 1 line

→[After implementation of the measures] All shut down

## 6) Nippon Steel Stainless Steel Corporation

To increase the efficiency of the production framework, the cold-rolling mill and the annealing line of Nippon Steel Stainless Steel's Kinuura Works will be shut down and the production will be transferred to its Yamaguchi Works. This will result in the shutdown of all production facilities of the Kinuura Works, including the shutdown of its hot strip mill which was announced in 2020.

The electric furnace in the Yamaguchi Works and some of the cold-rolling and annealing facilities at the Yamaguchi Works and the Kashima Works will also be shut down.

|           |                        | [Relevant steelworks] | [Relevant facility]  | [Time of shutdown]                                 |
|-----------|------------------------|-----------------------|--|--|
| Stainless | Nippon Steel Stainless | Kinuura Works         | All lines (the cold-rolling mill and all other lines thereafter) | By around the end of fiscal 2021                   |
|           |                        | Yamaguchi Works       | A part of the cold-rolling and annealing facilities              | From the end of March 2021 to the end of June 2026 |
|           |                        |                       | 1 electric furnace   | By around the end of fiscal 2023                   |
|           |                        | Kashima Works         | A part of annealing facilities                                   | By around the end of June 2021                     |

Stainless cold-rolling mills: [Before implementation of the measures] 13 mills

→ [After implementation of the measures] 9 mills

Electric furnaces: [Before implementation of the measures] 4 units

→ [After implementation of the measures] 3 units

[Measures to streamline upstream facilities]

The following measures will be implemented in addition to the already-announced shutdown of all upstream facilities (2 blast furnaces, sintering, and steelmaking) in the Setouchi Works Kure Area and upstream facilities (1 blast furnace and related facilities) in the Kansai Works Wakayama Area.

1) Strengthening the upstream facilities in the East Nippon Works

Taking into consideration the upstream facility balance after the shutdown of the steel plate mill and shape

mill in the East Nippon Works Kashima Area, as well as the area's integrated production and shipping capacity, costs, and other factors, the No. 3 blast furnace and related facilities will be shut down.

In the East Nippon Works Kimitsu Area, the continuous casting machine that manufactures large-shaped steel pieces will also be shut down along with the shutdown of its shape mill (mentioned above).

|                     | [Relevant steelworks]          | [Relevant facility]  | [Time of shutdown]               |
|---------------------|--------------------------------|--|----------------------------------|
| Upstream facilities | East Nippon Works Kashima Area | One series of upstream facilities (No. 3 blast furnace, No. 2-ABCD coke ovens, No. 3 sintering machine, and No. 1 steelmaking plant (1 basic oxygen furnace, 2 continuous casting machines, etc.)) | By around the end of fiscal 2024 |
|                     | East Nippon Works Kimitsu Area | No.1 continuous casting machine (mentioned above)  | By around the end of fiscal 2021 |

[Measures announced on February 7, 2020]

|                     |                            |   |   |
|---------------------|----------------------------|---|---|
| Upstream facilities | Setouchi Works Kure Area   | All facilities (incl. No.1 and No.2 blast furnaces, No.1 and No.2 sintering machines, and No.1 and No.2 steelmaking plants) | By around the end of the first half of fiscal 2021  |
|                     | Kansai Works Wakayama Area | No. 1 blast furnace, No. 5 coke oven, and No. 5-1 sintering machine   | By around the end of the first half of fiscal 2021 (moved ahead from around the end of the first half of fiscal 2022, as announced on Feb. 7, 2020) |
|                     |                            | No. 4 coke oven and No. 3 casting machine - 1 strand  | By around the first half of 2022  |

Blast furnaces: [Before implementation of the measures] 15 units\*

→ [After implementation of the measures] 10 units

Continuous casting machines: [Before implementation of the measures] 32 units\*

→ [After implementation of the measures] 24 units

\* One blast furnace and one continuous casting machine in the Kyushu Works Yawata Area (Kokura) were shut down in fiscal 2020.

After implementing the above measures, the annual domestic crude steel production capacity (simple sum of Nippon Steel and Nippon Steel Stainless Steel) will be reduced by approximately 10 million tons (from 50 million tons to 40 million tons).

2) Change in the supply arrangement of steel billets to the East Nippon Works Kamaishi Area and partial steelworks reorganization.

The main supply base of steel billets for wire rods for the East Nippon Works Kamaishi Area is the Kimitsu Area of the same works; however, to improve the efficiency of the upstream facility for the entire bar and wire rod business, the main supply base will be changed to the Muroran Works by 2025.

In line with this change, the structure of our steelworks will be reorganized by April 2022 as follows.

[Now]

Muroran Works

East Nippon Works Kamaishi Area

[After reorganization]

North Nippon Works Muroran Area

North Nippon Works Kamaishi Area

[Partial advance in schedule of previously announced measures]

Based on the immediate trends in supply and demand and other factors, and in order to improve the efficiency of the production framework at an earlier stage, among the upstream facilities of the Kansai Works Wakayama Area which were previously announced, the shutdown of the No. 1 blast furnace, No. 5 coke ovens, and No. 5-1 sintering machine will be moved up one year ahead of the original schedule (from around the end of the first half of fiscal 2022, as announced on Feb. 7, 2020 to around the end of the first half of fiscal 2021.). The shutdown schedule for the No. 4 coke oven and No. 3 casting machine - 1 strand remains unchanged and will continue until around the first half of fiscal 2022, as announced on Feb. 7, 2020.

[Investment in strategic products: renewal and improvement of facilities, and higher-level order mix]

1) Strategic investment in a hot strip mill at the Nagoya Works

As global environmental regulations and collision safety standards continue to become stricter in the automotive industry, demand for high-performance materials is expected to increase further in

response to the need for more lightweight and stronger automotive bodies. With regard to electric vehicles such as electric cars which are expected to become widespread, the need for the reduction of vehicle weight and an increase in body strength is expected to increase due to issues related to mileage and battery weight.

In response to these needs, we intend to dramatically strengthen production capability of ultra-high-tensile strength steel sheets<sup>2</sup> at the Nagoya Works, which is our center for the manufacture of automobile steel sheets. We have therefore decided to make a strategic investment in building a next-generation hot strip mill. After the next-generation hot strip mill is launched, the existing hot strip mill will be shut down. We will carry out detailed studies to enable rapid implementation.

2: Ultra-high-tensile strength steel sheets have a tensile strength of more than 1.0 GPa.

## 2) Strengthening production framework of high-grade electrical steel sheets

Regulations on electric transformer efficiency have been strengthened in a number of countries as a part of decarbonization initiatives taken at a high pace around the world. As such, the need for high-grade materials with low energy loss is expected to increase, for products including grain-oriented (GO) electrical steel sheets used in electric transformer iron hearts. In addition, in the field of non-oriented (NO) electrical steel sheets used for steel motors, demand for high-efficiency and high-grade materials is expected to grow dramatically, as demand for electric vehicles is expected to accelerate due to stricter regulation of CO<sub>2</sub> emissions and fuel consumption of automobiles.

By November 2020, we decided to adopt measures to improve the capacity and quality of electrical steel sheets in the Setouchi Works Hirohata Area and the Kyushu Works Yawata Area. We are currently working on measures to realize this by the first half of fiscal 2023. In addition, we have decided to swiftly respond to market demand for these sheets by improving the production capacity in the Setouchi Works Hirohata Area. We will carry out detailed studies to enable rapid implementation.

Through the above various measures, the DX measures described below and other measures, we will reduce the number of necessary personnel by a total of more than 20% in us and our business partners (on-site contractors) for the period from fiscal 2021 to the end of fiscal 2025.

In order to build an optimal production framework, we will continue to examine and analyze demand trends and other factors in a timely and accurate manner, and continue to develop necessary measures.

## (2) Strengthening our group management

In order to improve our consolidated business profitability and maximize our corporate value, we will strive to 1) strengthen the competitiveness and profitability of each group company; 2) optimize the group

structure through concentration on core business operation; and 3) deepen group collaboration and improve and strengthen the management base, among others.

With respect to group companies in the steel business, we will strengthen each company's profitability integrated with Nippon Steel's relevant product business units and other parts of the business, while clarifying the mission of each company, and continue to advance concentration on core business operations of our group companies, by taking into account sustainability and other factors.

With regard to the three non-steel group companies, Nippon Steel Engineering Co., Ltd. and Nippon Steel Chemical & Material Co., Ltd. will implement measures to precisely coordinate the various issues related to the steel business, and endeavor to increase their profits based on their own "concentration on core business operations." Nippon Steel Solutions Co., Ltd. will make a significant contribution to the development of our digital transformation strategy for the entire group based on the technology and experience it has accumulated, and will continue to grow its business notably by ensuring growing market needs are captured.

## **2. Promoting our global strategy to deepen and expand our overseas business**

Global steel consumption is expected to continue to grow at a moderate pace toward 2025, furthermore, 2030. We have developed our business mainly in Asia (especially China, the ASEAN countries and India), whose market size and growth rate is relatively large globally, and we are well positioned to profit from the scale and growth of this market.

In order to further improve our profitability in this environment, we will move away from our traditional business of exporting steel products, mainly high-grade steel, and supplying by overseas companies in charge of producing predominantly cold-rolled and plating products, and will move toward a full-scale overseas business that enables local demand to be captured in its entirety and provides added value to our products.

The Group aims to achieve 100 million tons of global crude steel capacity per annum<sup>3</sup>, which is our vision, by capturing demand in growth markets through the sale of products from our strong domestic mother mills and local mills overseas, and we will promote measures to expand the capacity of AM/NS India and consider acquisition of, and equity participation (brownfield investment) in integrated steel mills in China, ASEAN countries and others.

With regard to existing overseas businesses, we have concentrated operations, and narrowed our focus to certain businesses, as we have almost completed the reorganization of our overseas tinplate business and our withdrawal from VSB<sup>4</sup> and other businesses which would not be economically viable for us to continue. Going forward, we will aim to increase profits by strengthening the business bases of AM/NS India and OVAKO, which are large-scale acquisitions, and in the case of each overseas business

company, by taking advantage of our advanced technology and capturing the growth of the markets as a company in each country.

3: Simple sum of crude steel production at full capacity of i) companies in which we have 30% or more equity interests (including USIMINAS) among companies subject to World Steel Association's crude steel production statistics; and ii) our equity method affiliates with less than 30% equity interests to which we provide semi-finished products.

4: Vallourec Soluções Tubulares do Brasil S.A. (VSB) is an integrated joint venture of seamless steel pipes and tubes. Nippon Steel has decided to sell its equity stake to Vallourec, a JV partner, by around the end of March 2021.

### **3. Taking on the challenge of zero-carbon steel**

As a part of our widespread efforts toward achieving a decarbonized society, by adopting “Nippon Steel Carbon Neutral Vision 2050 – A Challenge of Zero-Carbon Steel” as our own new initiative, we will consider and implement various measures as a top priority management issue in order to win development competitions with our competitors in Europe, the United States, China and South Korea and to continue to lead the world's steel industry.

By 2030, our plan is to achieve reduction of CO<sub>2</sub> emissions by 30% compared to 2013 through the practical implementation of COURSE50<sup>5</sup> into the current blast furnace and basic oxygen furnace processes, reduction of CO<sub>2</sub> emissions in existing processes, and establishment of an efficient production framework.

Toward 2050, we will take on the challenge of adopting ultra-innovative technologies such as mass production of high-grade steel in electric furnaces, drastic reduction of CO<sub>2</sub> emissions through Super-COURSE50<sup>6</sup> and other developments in hydrogen reduction methods, and production of direct reduction iron using hydrogen, and we will aim to achieve carbon neutrality by taking a multi-aspect approach, including measures to offset carbon through CCUS<sup>7</sup> and other methods.

In particular, the 100% hydrogen direct reduction method of steelmaking, which is the ultimate zero-carbon steelmaking technology, is an unprecedented technology that is not yet proven and possesses extremely high innovation hurdles. In addition, the mass production of high-grade steel by electric furnaces requires the development and use of extremely complex technology, an increase in size and efficiency, and the establishment of technology for eliminating harmful elements from hazardous materials. Realization of the blast furnace hydrogen reduction method will also require the establishment of technology related to hydrogen heating and blowing of endothermic reactions during hydrogen reduction. These innovations will require R&D expenses of approximately ¥500 billion and ¥4 to 5 trillion in investments in facilities. Moreover, it is possible that the production cost of crude steel even in the best-case scenario as of 2050, which factors in potential external conditions, will be more than double that of current costs.

The above mentioned zero-carbon steel cannot be achieved by the steel industry alone. The list of premises for realization includes. 1) long-term and continuous government support for research and development of non-continuous innovation and equipment implementation. 2) establishment of inexpensive and stable large-scale hydrogen supply infrastructure. 3) realization of carbon free power at an internationally competitive cost. 4) promotion of national projects for the development and commercialization of economically viable CCUS; 5) securing equal-footing in international competition; and 6) establishment of a system that enormous costs will be borne by society as a whole.

In addition to promoting fundamental technological innovations in the steelmaking process, Nippon Steel will contribute to the realization of carbon neutrality with our products contributing to CO<sub>2</sub> emission reduction, through development and supply capacity increase of high-performance products such as ultra-high-tensile strength steel sheets for body weight reduction and high-performance electric steel sheets for drive motors which are used in electric vehicles, by building the next-generation hot strip mill at the Nagoya Works and the strengthening of the production framework for electric steel sheets.

5: COURSE50 is a project to develop technology to partially use hydrogen in the blast furnace reduction of iron ore, instead of coking coal.

6: Super-COURSE50 is a subsequent project to develop technology to raise the hydrogen reduction ratio in the blast furnace steelmaking method.

7: Carbon dioxide capture, utilization and storage (CCUS) is a technology which separates and recovers CO<sub>2</sub> in gases, utilizes it in the form of chemicals and fuels, or stores it underground.

#### **4. Promoting digital transformation strategies**

Over the next five years, we will invest ¥100 billion or more into our digital transformation strategy, with the aim of becoming a digitally advanced company in the steel industry. Specifically, we will strengthen our business competitiveness by making full use of data and digital technologies and implementing the following production and business process innovations.

First, we will realize smart manufacturing by utilizing advanced digital technologies such as AI and the Internet of Things (IoT) in order to advance the innovative evolution of our “strength in manufacturing .” Through this initiative, we will expand the formalization and standardization of our technology, including our implicit knowledge of know-how, improve labor productivity through automation and predictive detection, and achieve production stability and further improvements to quality through the advancement of manufacturing technology. In addition, we will establish a foundation for remote operations management that will ensure the same level of operation and quality at our overseas facilities as that in Japan.

Second, as a measure to improve customer responsiveness, we will build an integrated production

planning platform from order to production to delivery, thereby strengthening our flexible and optimal supply framework. In addition, we will develop a linkage relationship with supply chain information and other information, and work to create new value which we intend to pass on to our customers.

Third, as a measure to enhance our global management base, we will build an integrated data platform that provides real-time visibility of various management information and KPIs, enabling rapid improvement action, and strengthening business intelligence (a data-based management support system). This will accelerate our decision-making from the management level to the front line and improve problem solving.

#### **IV. Investment Plan and Financial Targets**

##### (1) Aggressive growth investment plan in management resources (fiscal 2021-2025)

Through the implementation of the measures outlined above, we will aim to achieve the following targets in fiscal 2025:

- We will implement capital expenditures of ¥2,400 billion over the next five years, as we will invest in rebuilding our strong domestic production framework, and contribute to measures for strategic products.
- We will make investments in business of ¥600 billion over the next five years, in preparation for the steady promotion of AM/NS India capacity expansion measures and acquisition of, and equity participation (brownfield investment) in integrated steel mills in countries, such as China and ASEAN countries.

##### (2) Financial targets and shareholder return (fiscal 2025)

We will aim to achieve the following financial targets in fiscal 2025 in order to be prepared for a worsening business environment, such as a decline in domestic steel demand and intensified competition in the overseas markets, and ensure sufficient financial strength (an international credit rating of “A”) and recover our corporate value in anticipation of, among other things, full-scale investments in facilities related to zero-carbon steel, which is expected to kick off in or after fiscal 2025

|                        | Fiscal 2025 Plan<br>Targets | 2H Fiscal 2020 Forecasts              |
|------------------------|-----------------------------|---------------------------------------|
| ROS (Return on Sales)  | About 10%                   | 5.2%                                  |
| ROE (Return on Equity) | About 10%                   | About 6%                              |
| D/E Ratio <sup>8</sup> | 0.7 or less                 | About 0.7                             |
| Payout Ratio           | Around 30%                  | Year-end dividend of ¥10/share (plan) |

8: After recognizing equity credit attributes of the subordinated loans

The Group plans, by steadily promoting this management plan, to achieve 100 million tons of global crude steel capacity per annum through the combined efforts of its strong mother mills in Japan and local mills overseas, and to achieve business growth and reduce our impact on the environment, by taking on the challenge of the “Nippon Steel Carbon Neutral Vision 2050 – A Challenge of Zero-Carbon Steel.”

Through digital transformation, which will contribute to the strengthening of our decision-making and problem solving capabilities, and diversity and inclusion initiatives, we will strive to become a company with diverse employees who are empowered and willingly work with pride.

The Group will always endeavor to pursue the world’s best technology and strength in manufacturing and contribute to the development of society by providing world class products and services. Based on this basic policy, and through the implementation of the management plan, we will continually grow to “become the best steelmaker with world-leading capabilities” that contributes to Japan’s industrial competitiveness from the present and into the future.

End

For inquiries

Public Relations Center Tel.: +81-3-6867-2135, 2146, 2977, 3419

This document does not constitute an offer or invitation to subscribe for or purchase any securities and nothing contained herein shall form the basis of any contract or commitment whatsoever. This document is being furnished to you solely for your information and may not be reproduced or redistributed to any other person. No warranty is given as to the accuracy or completeness of the information contained herein. Investors and prospective investors in securities of any issuer mentioned herein are required to make their own independent investigation and appraisal of the business and financial condition of such company and the nature of the securities. Any decision to purchase securities in the context of a proposed offering, if any, should be made solely on the basis of information contained in an offering circular published in relation to such an offering. By participating in this document, you agree to be bound by the foregoing limitations. This document contains statements that constitute forward looking statements. These statements appear in a number of places in this document and include statements regarding the intent, belief or current expectations of Nippon Steel Corporation or its officers with respect to its financial condition and results of operations, including, without limitation, future loan loss provisions and financial support to certain borrowers. Such forward looking statements are not guarantees of future performance and involve risks and uncertainties, and actual results may differ from those in such forward looking statements as a result of various factors. The information contained in this document, is subject to change, including but not limited, to change of economic conditions, financial market conditions, and change of legislation / government directives.

Any statements in this document, other than those of historical facts, are forward-looking statements about future performance of Nippon Steel Corporation and its group companies, which are based on management's assumptions and beliefs in light of information currently available, and involve risks and uncertainties. Actual results may differ materially from these forecasts.