Seminar on Exploring Collaboration Opportunities toward Decarbonized and Sustainable Society in India

March 2025

NIPPON STEEL CORPORATION

Notes on this presentation material
- Unless otherwise noted, all volume figures are presented in metric tons.
- Unless otherwise noted, all financial figures are on consolidated basis.
- Unless otherwise noted, net profit represents net profit attributable to owners of the parent.

About NIPPON STEEL

Global manufacturing bases

Global crude steel production capacity

Approx. **66**mn tons/yr

Crude steel production

World wide **No.4**

Japan **No.1**

Where we are

16 countries

Japan, US, India, Thailand, Indonesia, Vietnam, Brazil, Mexico, Sweden, China and others

Number of employees

Consol. **114,000**

Revenue

Consol. **62** bn USD/yr

Main Products Core end-users

Products: Plates, Flat Steel
Bar & Rod, Pipe & Tube

End-users: Automobiles, Energy
Ship building,
Home appliance
Civil & Construction

Move Toward 100 Million Tons of Global Capacity

We will move toward 100 million tons of global crude steel production capacity through expanding integrated production in areas with demand and firmly capturing local requirements in "areas where demand is promisingly expected to grow" and in "sectors in which our technologies and products are appreciated".

India is one of the most important countries in the world for Nippon Steel.

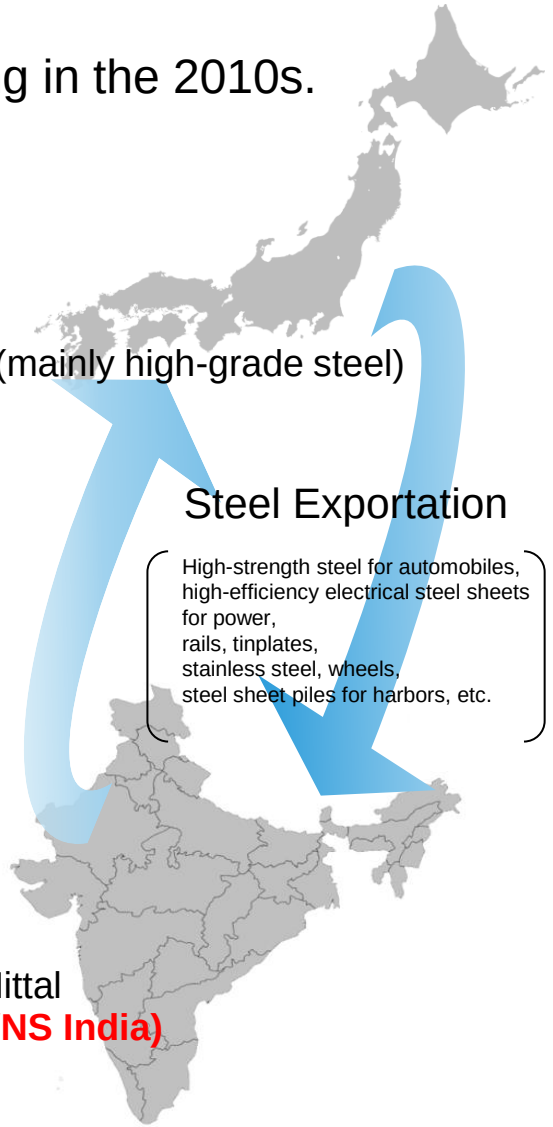
Global capacity change

	2014	2022	After acquisition of USS	Long-term Vision
Domestic	52	47	47	
Overseas	**6**	**19**	**39**	**>60**
Total	58	**66**	**86**	**>100**

Business History in India

- Started business with India in the 1930s.
- Strengthened our initiatives toward local production starting in the 2010s.

In 1937	Started importing iron ores (India → Japan)
In the 1950s	Started exporting steel products from Japan to India (mainly high-grade steel)
In 1957	Started long-term iron ore procurement contracts
In the 1970s	Started technical assistance to Indian steel mills (Tata Steel, SAIL, Bhushan Steel, etc.)
In the 2010s	Strengthened our initiatives toward local production, mainly focusing on automobile business (JCAPCPL (JV with Tata Steel), etc)
In 2019	Jointly acquired the former Essar Steel with ArcelorMittal **Established ArcelorMittal Nippon Steel India (AM/NS India)**



Our CO_2 emissions reduction scenario

2030 Target

30% or more reduction in total CO_2 emissions vs. 2013

[Means]

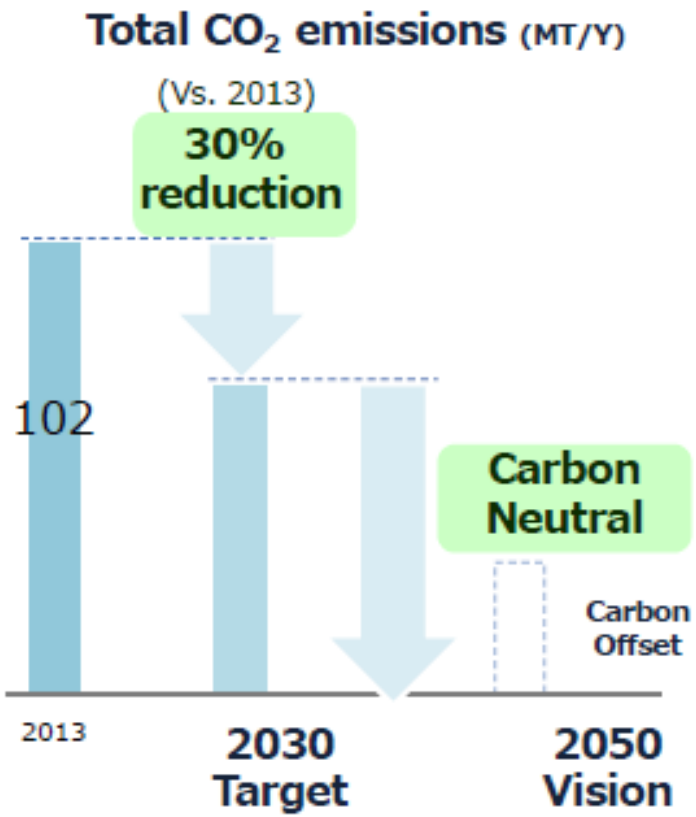
- Actual implementation of the COURSE50 in the existing BF and BOF process
- Reduction of CO_2 emissions in existing processes
- Establishment of an efficient production framework.

Vision 2050

Aim to become carbon neutral

[Means]

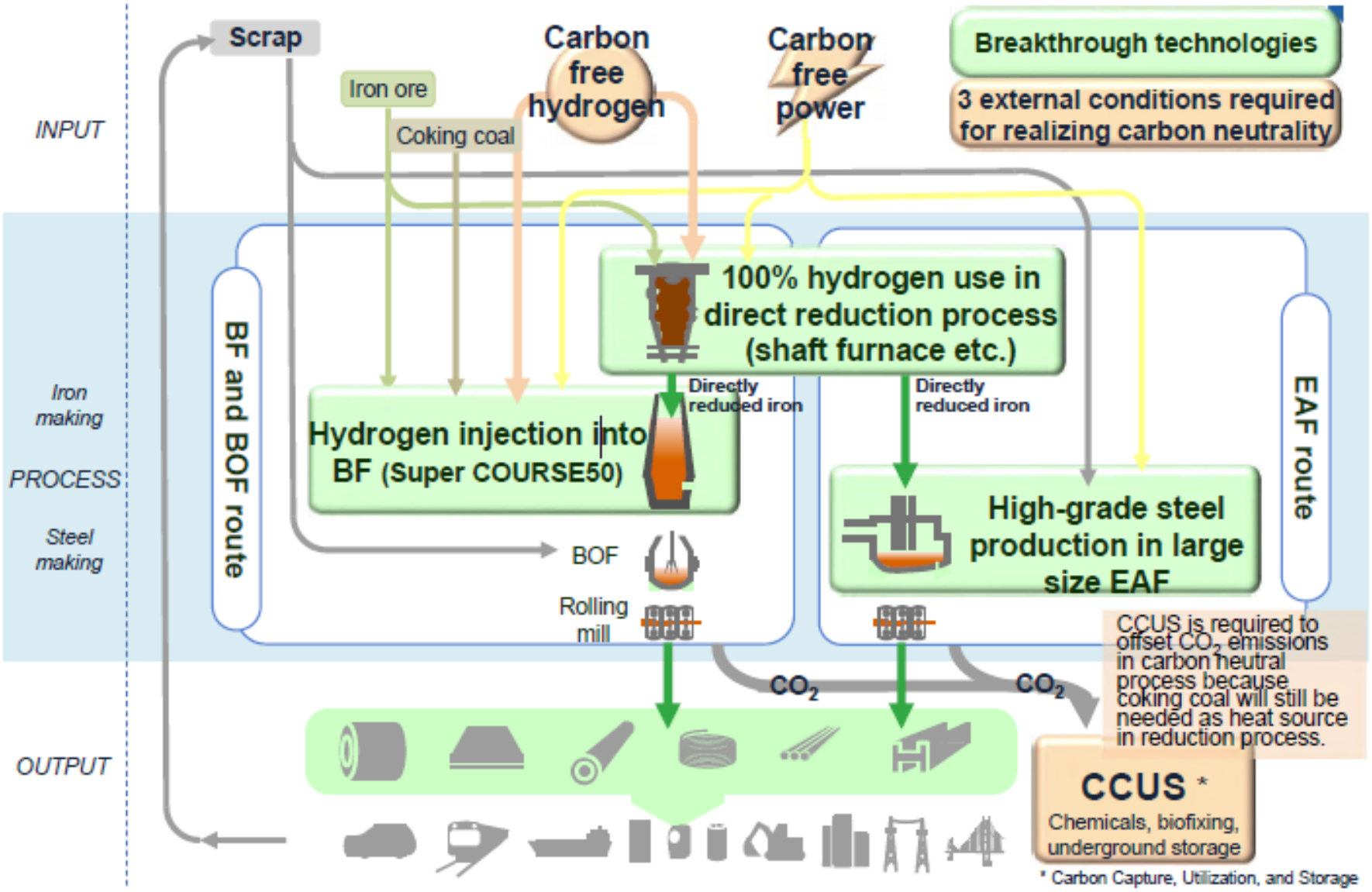
- Mass-production of high-grade steel in large size EAFs
- Hydrogen reduction steelmaking (by Super-COURSE50 use of BFs; direct reduction of 100% hydrogen)
- Multi-aspect approach, including CCUS* and other carbon offset measures,.



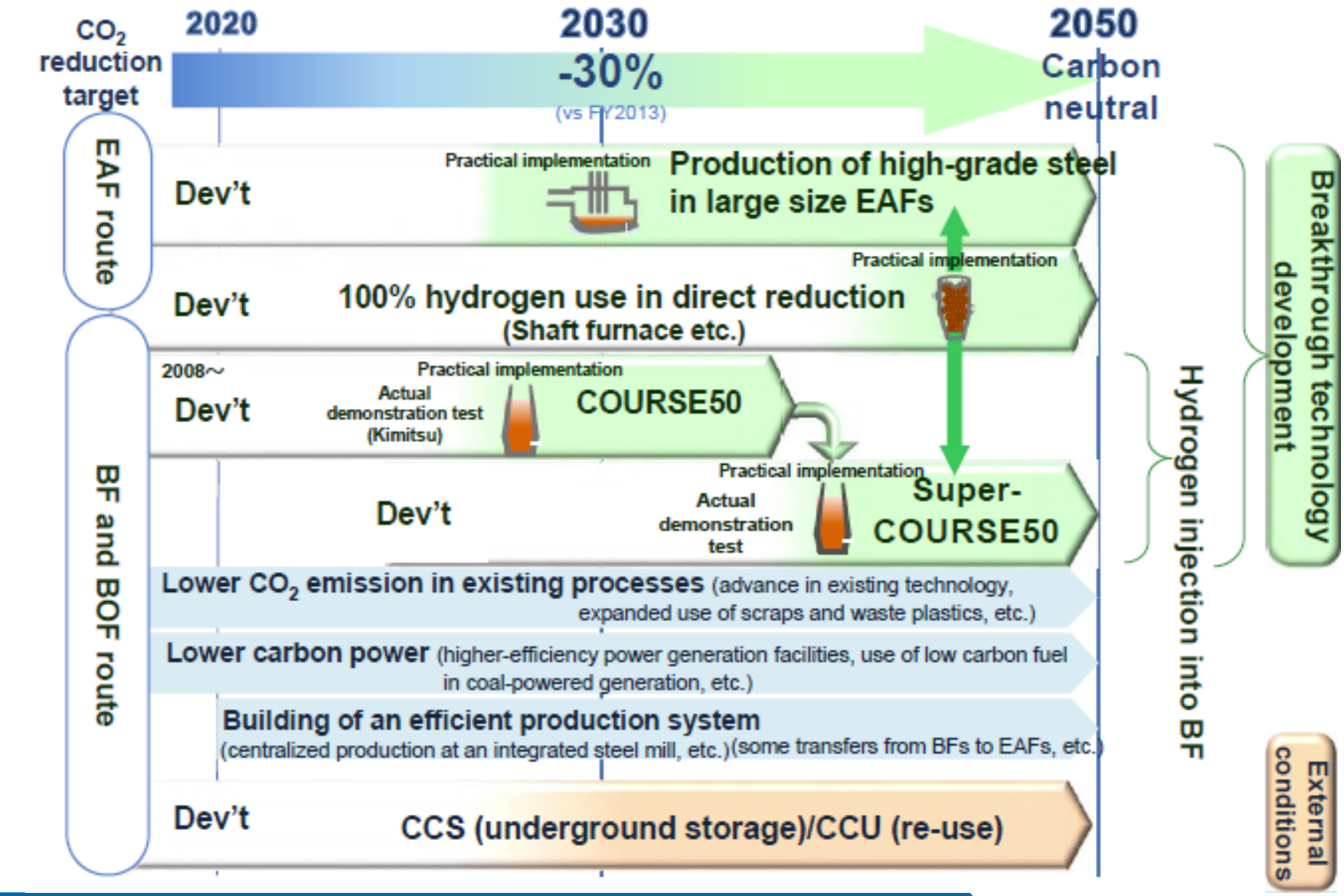
[Scope of Scenario]
Domestic
SCOPE I + II
(Receipt of raw materials to product shipment) + (CO_2 at the time of purchase power production)

*Carbon dioxide Capture, Utilization, and Storage

Carbon Neutral Process

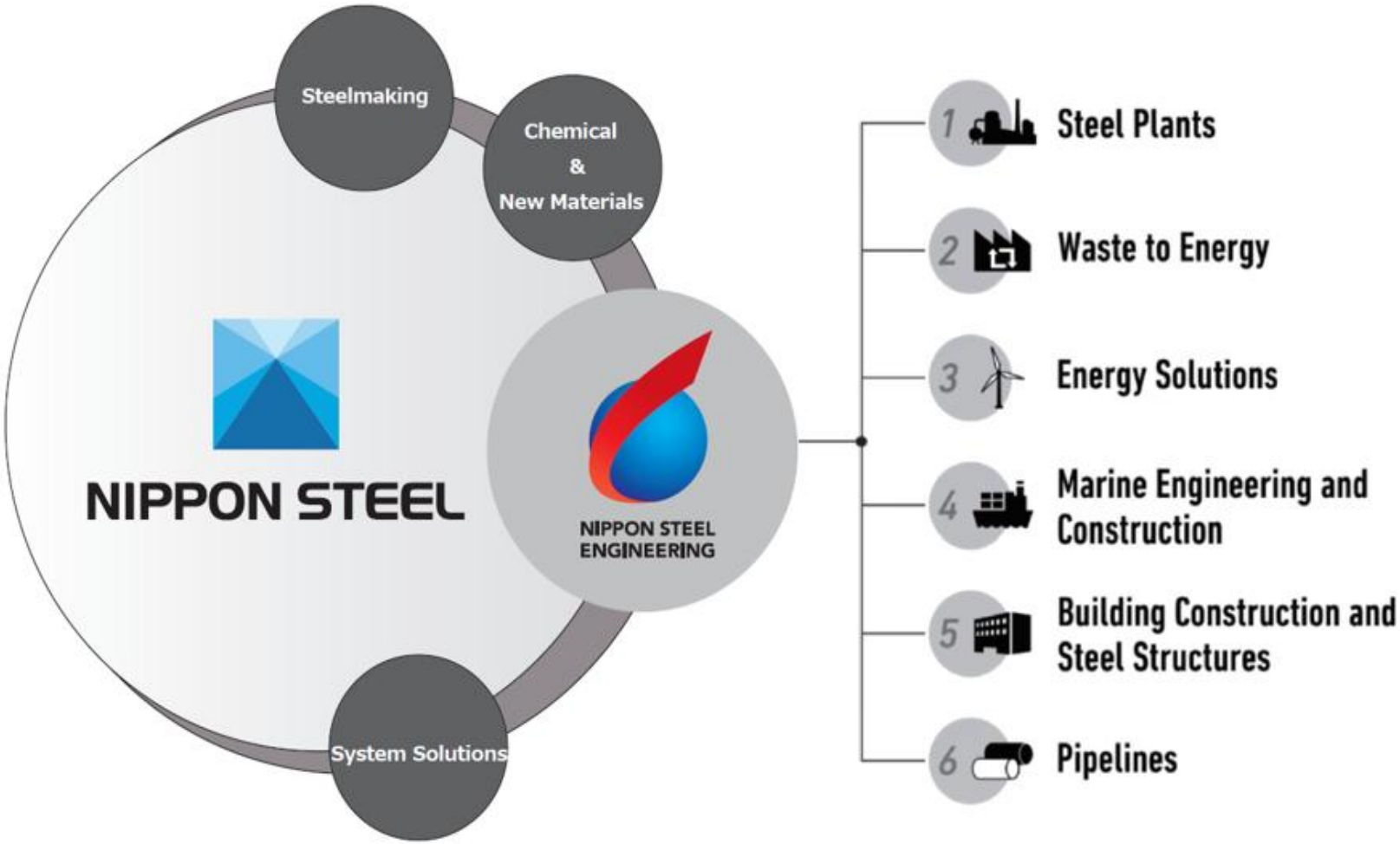


Our roadmap for CO_2 emission reduction measures



Our group company which provides engineering

Nippon Steel Engineering (NSE) is the **Engineering Division** within the Nippon Steel Group.



NSE is focusing on Carbon Neutral Technology

Coke Dry Quenching

Waste to Energy

2nd Generation Biomass Ethanol

Biomass Power Plant

CO2 Capture Plant

Sewage Sludge Recycling Plant

Geothermal Power Plant

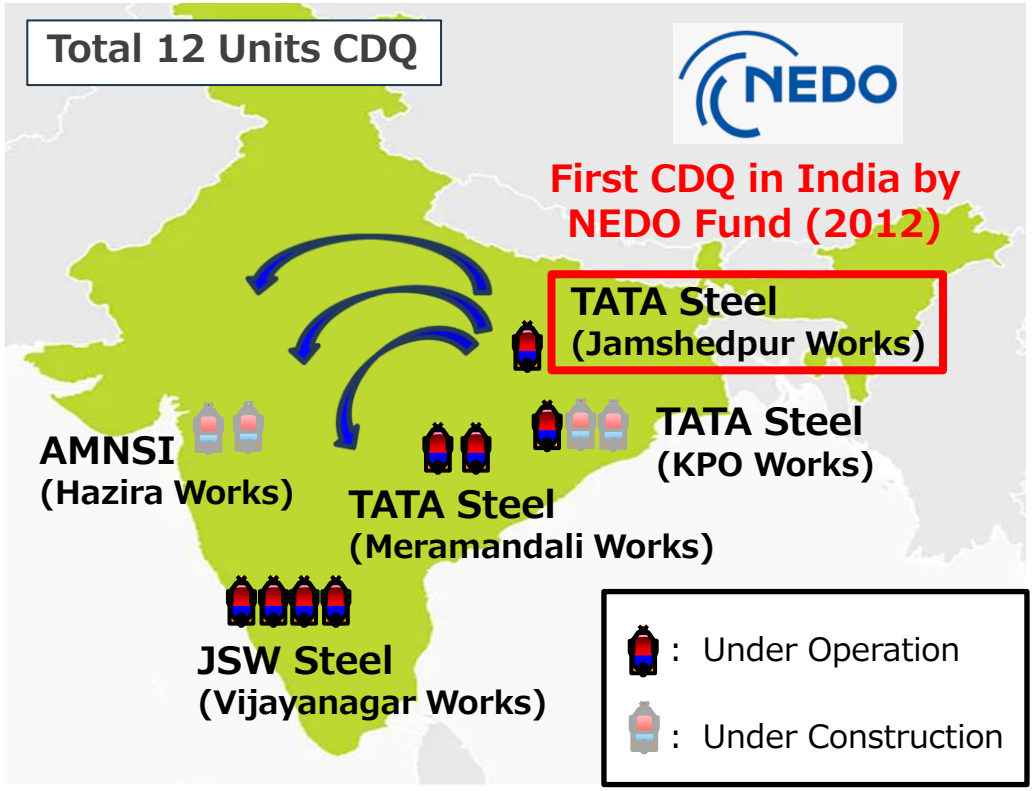
e-Fuel Plant

Main Technologies in India - CDQ

The Nippon Steel Engineering is providing
Coke Dry Quenching (CDQ) Technology to reduce **CO_2 emission**

CDQ
Over 170 Units
References in the world

Waste Heat Recovery System
① CO_2 Reduction
② Preventing Dust Emission
③ Improve of Production of BF



Thank you