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NSCarbolex™
Innovative action for sustainability

Products and solution technologies to help reduce
CO₂ emissions in society as a whole.

Nippon Steel
Carbon dioxide less





Nippon Steel offers two values: NSCarbolex Neutral and NSCarbolex Solution.

Nippon Steel has set forth the "Nippon Steel Carbon Neutral Vision 2050" and is working to reduce CO₂ emissions as its most important management issue. NSCarbolex is a general brand name for products and solution technologies to help reduce total greenhouse gas including CO₂ ("CO₂") emissions in society as a whole, offered to society by Nippon Steel through these efforts.

Green Transition / Transformation Steel ("GX Steel") allocated CO₂ emissions savings through the application of the mass balance approach.



Advanced products and solution technologies that contribute to reducing CO₂ emissions in society



NSCarbolex contributes to reducing CO₂ emissions in every aspect, from the raw materials stage, through our customers' manufacturing processes, to product use and disposal.

Scope 1 :

Direct emissions from the reporting company's factories, offices, vehicles, etc.

Scope 2 :

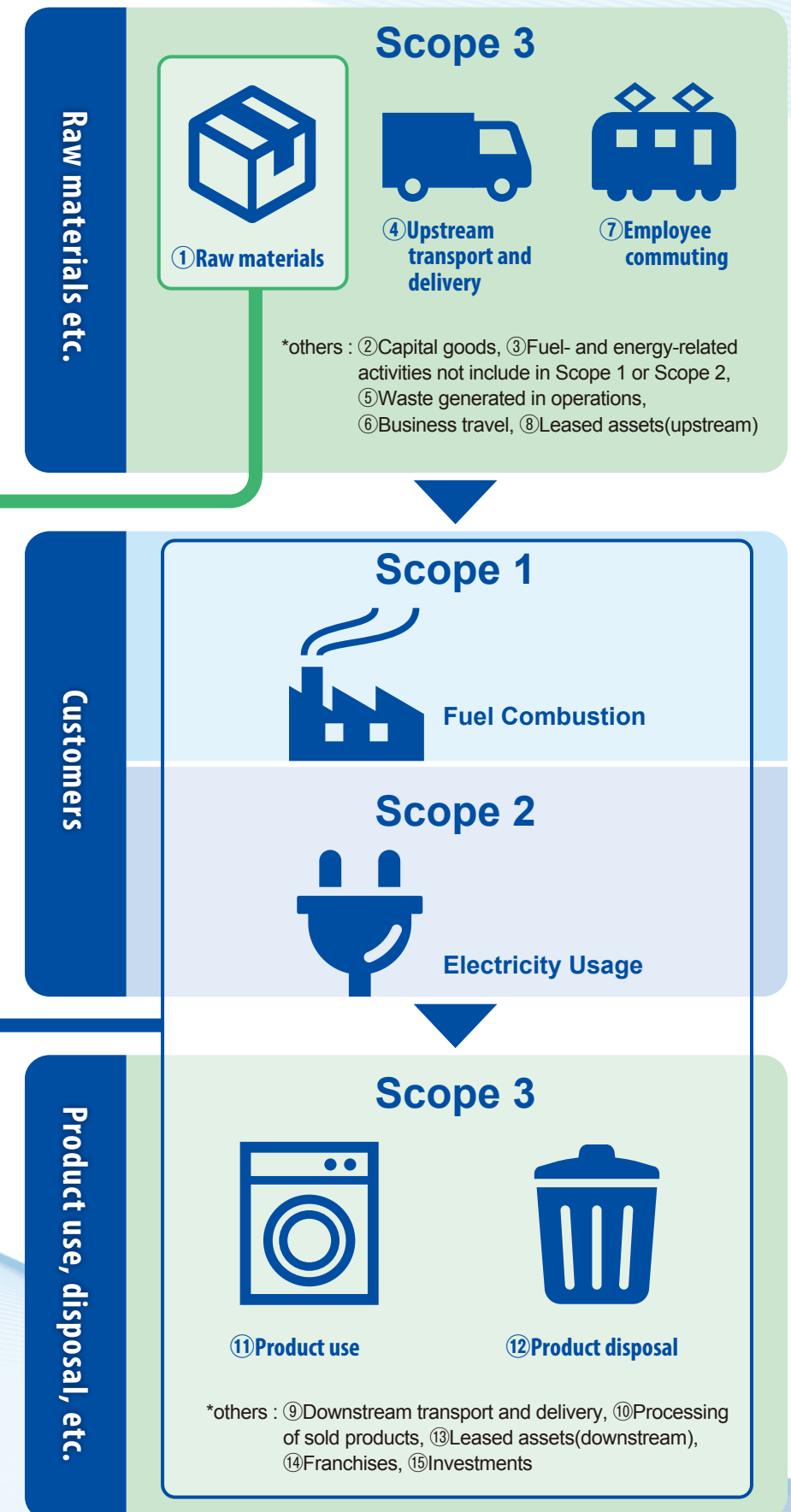
Indirect energy-derived emissions from electric power and other energy consumed by the reporting company

Scope 3 :

Indirect emissions other than Scope 1 and Scope 2 (Emissions by others related to the company's activities).

Source: Ministry of the Environment website

CO₂ emissions in customers' supply chain



Contributing to reducing CO₂ emissions from our customers' raw materials

Contribute to reducing CO₂ emissions in manufacturing processes of our customers and during the use of our customers' products.



NSCarbolex Neutral is the GX Steel to which part of the amount of CO₂ emissions actual savings in Nippon Steel's product manufacturing processes ("NSC Total CO₂ Emissions Savings") are allocated through the application of the mass balance approach.

As the demand for decarbonization in society continues to grow, we believe that accelerating efforts towards decarbonization will enhance the competitiveness of our customers.

Nippon Steel aims to contribute our customers in their decarbonization by establishing a stable supply system for NSCarbolex Neutral at an early stage.

Feature 1

NSCarbolex Neutral is the steel products to which part of the NSC Total CO₂ Emissions Savings achieved through the CO₂ reduction project of Nippon Steel as the countermeasures with additionality* are allocated.

Feature 2

Nippon Steel obtains a limited assurance from a third-party organization and issues a certificate* ensuring fairness.

Feature 3

The CO₂ emission reductions shown on the certificate can be reported as a deduction from the Customer's Scope 3 GHG emissions and the upstream emissions at the Customer's product level*

Feature 4

All steel products manufactured by Nippon Steel can be supplied as NSCarbolex Neutral. Furthermore, these products are available with the same quality as the ones the customers are already using.

<https://www.nipponsteel.com/en/product/nscarbolex/neutral/>



The diagram shows a vertical axis for CO₂ emissions. A horizontal line represents the baseline. A blue dot on this line is labeled "CO₂ emission equivalent to Scope 1+2". A blue arrow labeled "Allocation" points from this dot to a green dot below the baseline, labeled "CO₂ emission reduction applied to NSCarbolex Neutral". A green box below the baseline is labeled "Actual CO₂ emission reduction from Nippon Steel's CO₂ reduction project (assured by a third-party)". A blue arrow points from the green dot to a dashed blue box labeled "Neutral". A document icon labeled "Certificate" is also shown.



Advanced products and solution technologies that contribute to the reduction of CO₂ emissions in society.

Nippon Steel offers a variety of advanced products and solution technologies that contribute to reducing CO₂ emissions in society.

We systematized these items and launched a brand "NSCarbolex Solution".

Nippon Steel will make even greater contributions to reducing CO₂ emissions of customers and society by making efforts and providing information to be more useful than ever to our customers, and expanding our lineup of NSCarbolex Solution through further development of products and technologies.

Four values provided by NSCarbolex™ Solution

Reducing CO₂ emissions in customer manufacturing processes

Contributing to reduce CO₂ emissions by process saving and labor saving and time saving.



Feluce™

Hairline-like design on the plated layer allows a steel material itself to realize a beautiful design.

Key points for reducing CO₂ emissions

CO₂ emissions from painting in the appliance manufacturing process will decrease.

Reducing CO₂ emissions from material sources

Contributing to reduce CO₂ emissions by enhancing of material strength and proposing construction methods and designs, we make it possible to reduce the amount of material used per product.



NSafe™-AutoConcept

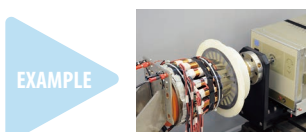
Contributing to the reduction of vehicle weight by proposing solutions such as high-strength materials, designs, and construction methods

Key points for reducing CO₂ emissions

Automotive bodies and parts can be manufactured using less material.

Reducing CO₂ emissions when customer products are used in society

Contributing to reduce CO₂ emissions throughout a product's life cycle through energy-saving products and extension of maintenance cycles.



High-efficiency electrical steel sheets

Advanced steel plate that reduces electrical energy loss (iron loss).

Key points for reducing CO₂ emissions

Improving motor efficiency to make hybrid cars, EVs and appliances more energy-efficient.

Contributing to the energy transition of society

Contributing to the energy transition of society by providing advanced products and technical solutions necessary for disseminating renewable energy.



HYDREXEL™

Stainless steel for high-pressure hydrogen, required for building infrastructure such as hydrogen stations.

Key points for reducing CO₂ emissions

Contributing to the realization of a hydrogen society.

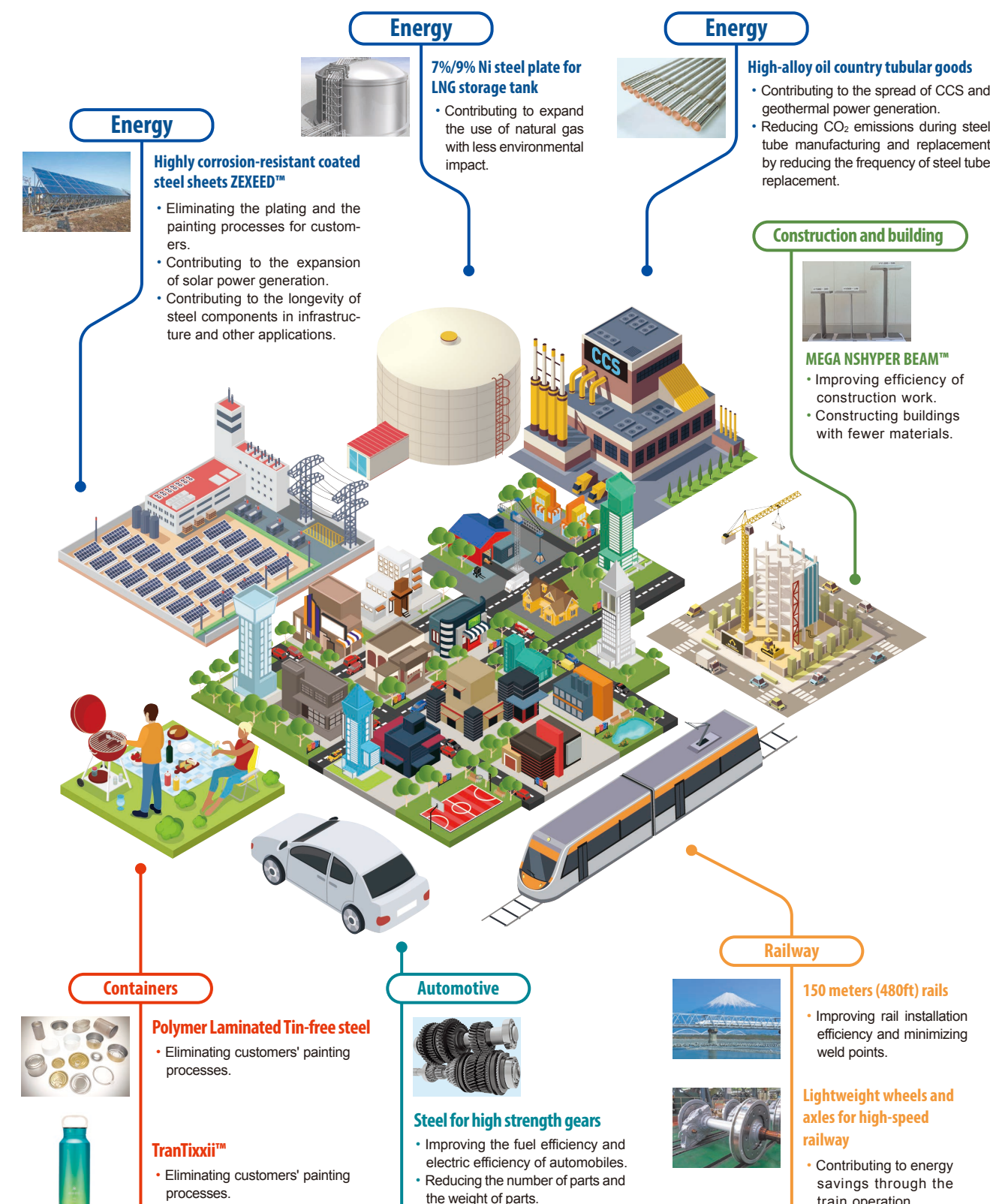
For further information ▶▶▶

<https://www.nipponsteel.com/en/product/nscarbolex/solution/>



Our advanced products and solution technologies contribute to the reduction of CO₂ emissions in every field of society.

NSCarbolex Solution Series Applications and Examples of CO₂ reduction



Provided by: Snow Peak Co., Ltd.