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**NSCarbolex™**  
Innovative action for sustainability

Products and solution technologies to help reduce  
CO<sub>2</sub> 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 CO<sub>2</sub> 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 CO<sub>2</sub> ("CO<sub>2</sub>") emissions in society as a whole, offered to society by Nippon Steel through these efforts.

Green Steel allocated CO<sub>2</sub> emissions savings  
through the application of the mass balance approach.



Advanced products and solution technologies  
that contribute to reducing CO<sub>2</sub> emissions in society



NSCarbolex contributes to reducing CO<sub>2</sub> 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 :

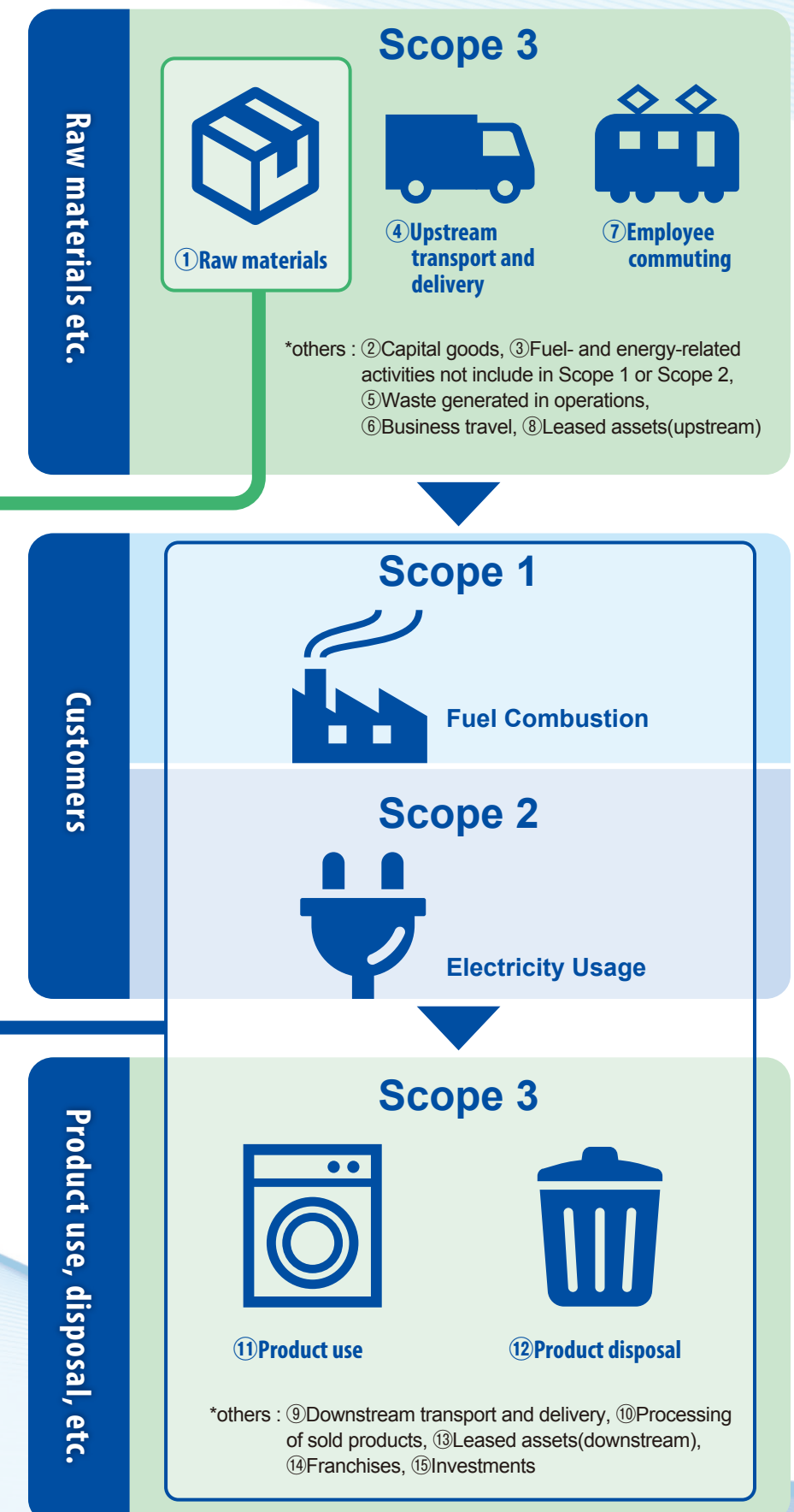
Indirect energy-derived emissions from electric power and other energy consumed by the reporting company

### 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

## CO<sub>2</sub> emissions in customers' supply chain



Contributing to reducing  
CO<sub>2</sub> emissions  
from our customers'  
raw materials

Contribute to reducing  
CO<sub>2</sub> emissions in  
manufacturing processes of  
our customers and  
during the use of  
our customers' products.





## Green steel, embodying the reduction of CO<sub>2</sub> emissions in the steel manufacturing processes as an environmental value through the application of the mass balance approach.

NSCarbolex Neutral is the Green steel to which part of the amount of CO<sub>2</sub> emissions actual savings in Nippon Steel's product manufacturing processes ("NSC Total CO<sub>2</sub> 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.

### 4 Features of NSCarbolex™ Neutral

#### Feature 1

#### Utilize actual CO<sub>2</sub> emissions savings through Nippon Steel's own transformative actions and improvements in its product manufacturing processes

NSCarbolex Neutral is the steel products to which part of the NSC Total CO<sub>2</sub> Emissions Savings achieved through the CO<sub>2</sub> reduction project of Nippon Steel as the countermeasures with additionality\* are allocated.

\* "Countermeasures with additionality" means the measures that have been implemented at our expense and that have resulted in an actual reduction of Scope 1+2 CO<sub>2</sub> emissions at Nippon Steel.

#### Feature 2

#### Obtains assurance from an independent third-party organization and issue a certificate

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

\* Nippon Steel obtains a limited assurance from a third-party organization in relation to the total CO<sub>2</sub> emission reductions achieved through its measures with additionality and the appropriateness of its operation of the mass balance approach.)

#### Feature 3

#### Contributes to the reduction of Scope 3 CO<sub>2</sub> emissions of customer

The CO<sub>2</sub> emission reductions shown on the certificate can be reported as a deduction from the customer's GHG Protocol Scope 3 emission calculations.\*

\*This is our interpretation based on information available at the time of publication of this brochure and is subject to change due to future revisions of the system."

#### Feature 4

#### Applicable to all steel products manufactured by Nippon Steel

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.

For further information ▶▶▶

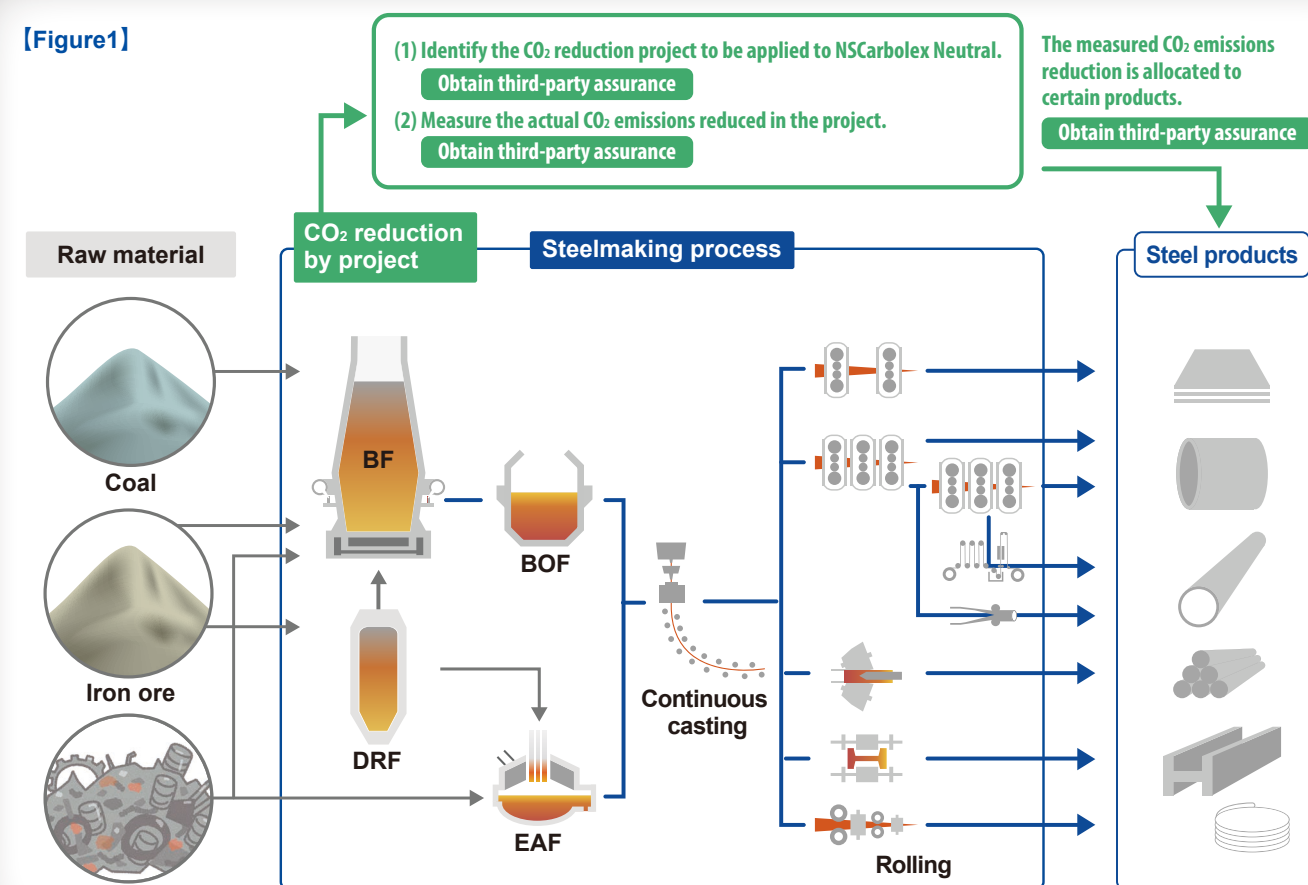
<https://www.nipponsteel.com/en/product/nscarbolex/neutral/>



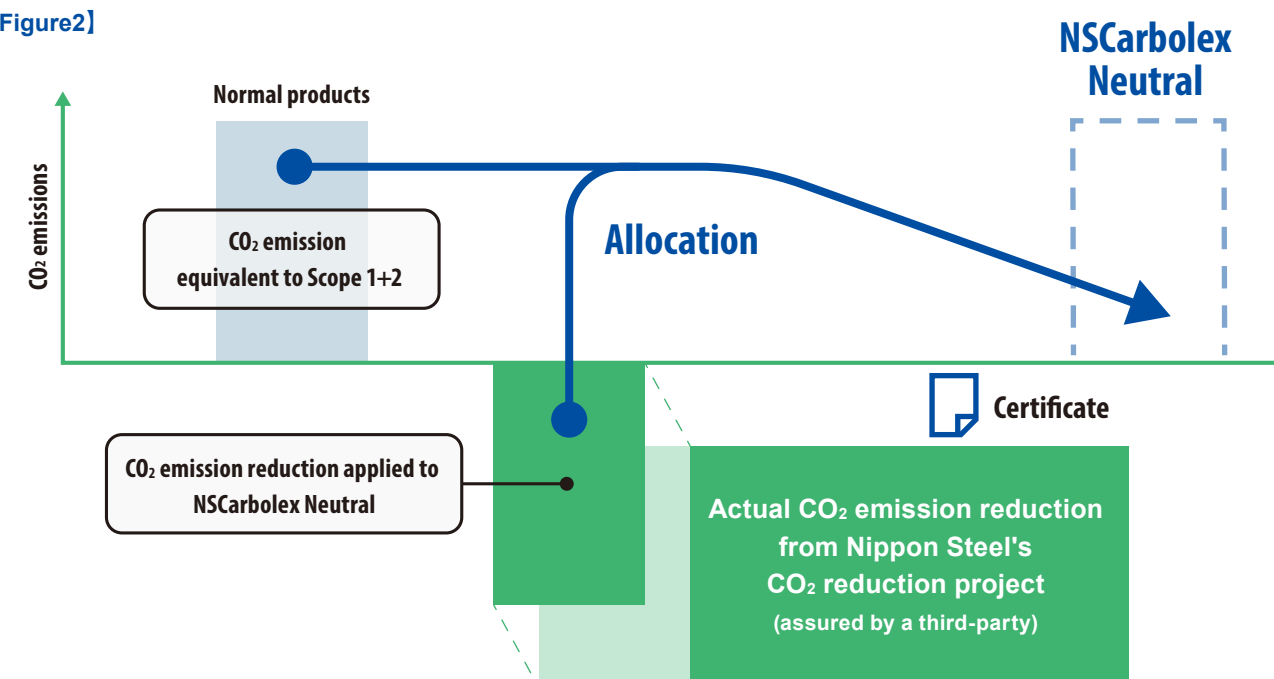
## Scheme of NSCarbolex Neutral

It is not easy to reduce carbon emissions in the steel industry, and it is expected to take a long time to develop decarbonization technologies. In this context, through the application of the mass balance approach, Nippon Steel will be able to quickly deliver to customers the CO<sub>2</sub> emission reduction effects achieved through projects such as the transformation and improvement of manufacturing processes (see also Figures 1 and 2).

[Figure1]



[Figure2]





## Advanced products and solution technologies that contribute to the reduction of CO<sub>2</sub> emissions in society.

Nippon Steel offers a variety of advanced products and solution technologies that contribute to reducing CO<sub>2</sub> emissions in society.

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

Nippon Steel will make even greater contributions to reducing CO<sub>2</sub> 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 CO<sub>2</sub> emissions in customer manufacturing processes

Contributing to reduce CO<sub>2</sub> emissions by process saving and labor saving and time saving.

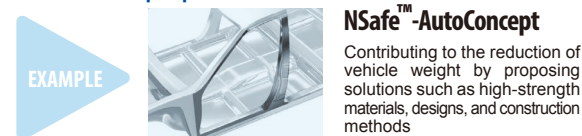


##### Key points for reducing CO<sub>2</sub> emissions

CO<sub>2</sub> emissions from painting in the appliance manufacturing process will decrease.

#### Reducing CO<sub>2</sub> emissions from material sources

Contributing to reduce CO<sub>2</sub> 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.



##### Key points for reducing CO<sub>2</sub> emissions

Automotive bodies and parts can be manufactured using less material.

#### Reducing CO<sub>2</sub> emissions when customer products are used in society

Contributing to reduce CO<sub>2</sub> emissions throughout a product's life cycle through energy-saving products and extension of maintenance cycles.

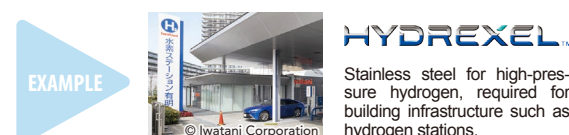


##### Key points for reducing CO<sub>2</sub> emissions

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.



##### Key points for reducing CO<sub>2</sub> emissions

Contributing to the realization of a hydrogen society.

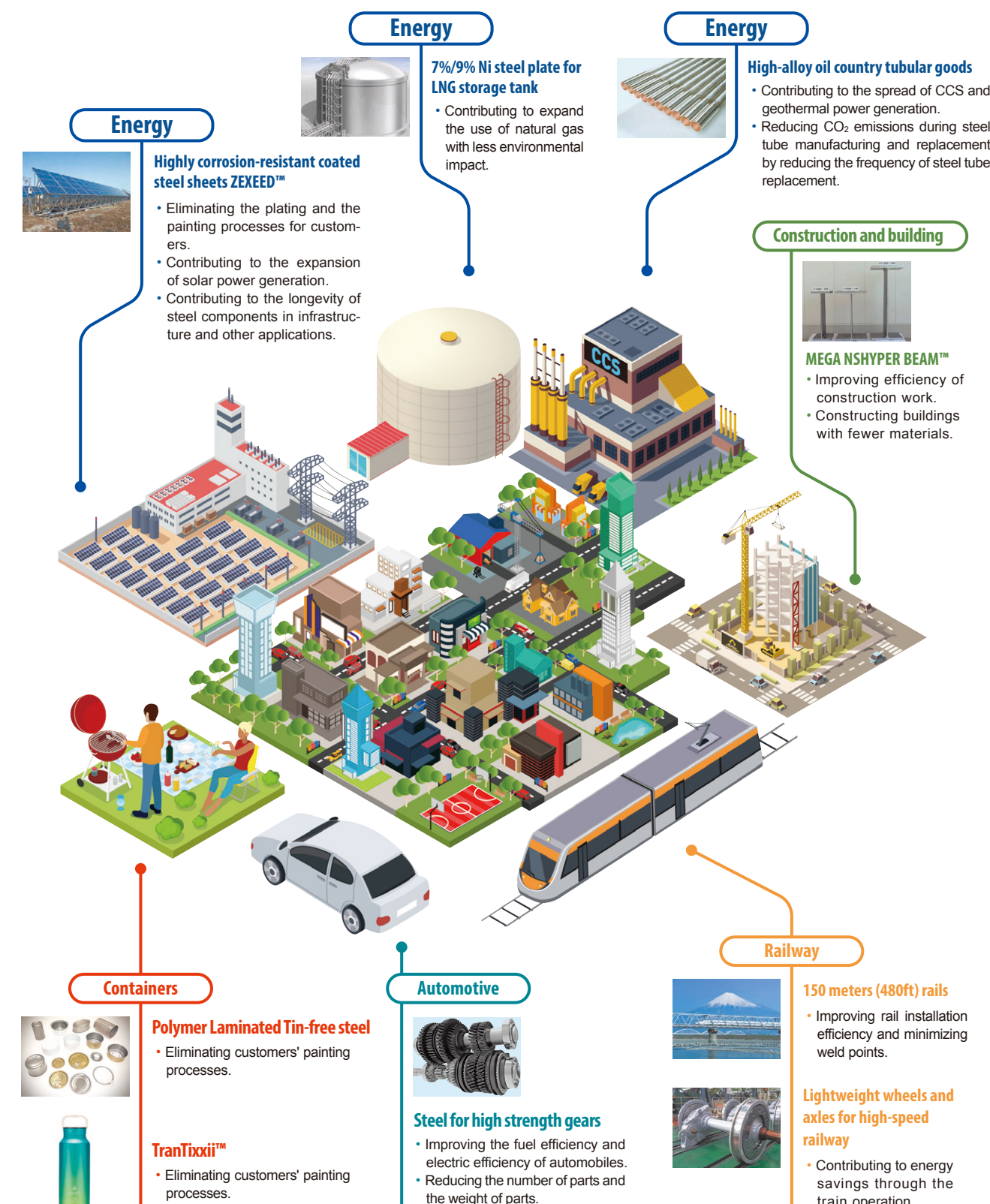
For further information ▶▶▶

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



## Our advanced products and solution technologies contribute to the reduction of CO<sub>2</sub> emissions in every field of society.

### NSCarbolex Solution Series Applications and Examples of CO<sub>2</sub> reduction



Provided by: Snow Peak Co., Ltd.