PACIFIC™ STEEL

CERTAIN STRENGTH

Leading a locally made, low carbon future.

Be a part of positioning New Zealand as a global leader in low-emissions steel production.

Reduce.
Reuse.
Reimagine.

Eco Choice Aotearoa

NEW ZEALAND MADE

New Zealand Steel's Electric Arc Furnace (EAF) has received approval and is set for operation in 2026. The EAF will enable New Zealand Steel to shrink its carbon footprint and help New Zealand, as a nation, be as close to self-sufficient as possible, using renewable energy and recycling scrap steel. This project underscores Pacific Steel's own commitment to a circular economy model, with all our feed material being supplied by New Zealand Steel.

Example of an electric arc furnace in action

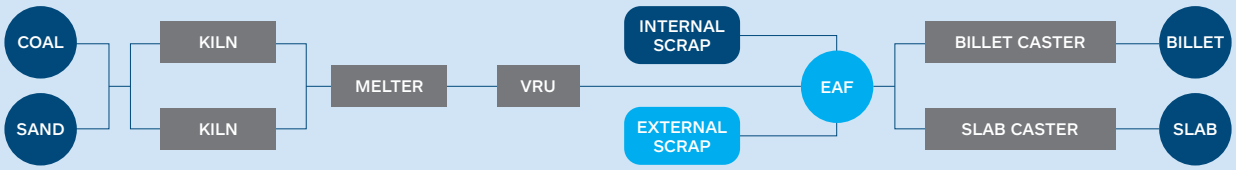
What is the Electric Arc Furnace?

In a landmark partnership between New Zealand Steel and the Government, the EAF project at Glenbrook, South of Auckland, replaces the current oxygen steelmaking furnace and two coal-fueled kilns, achieving a substantial cut in coal use and carbon emissions. Using an average of 30 megawatts on New Zealand's largely renewable grid, the EAF will melt down steel scrap, previously exported offshore, and process it into prime steel for new products. This initiative will provide our customers with lower carbon steel products, helping them build a stronger and more sustainable New Zealand.

The Future is Circular

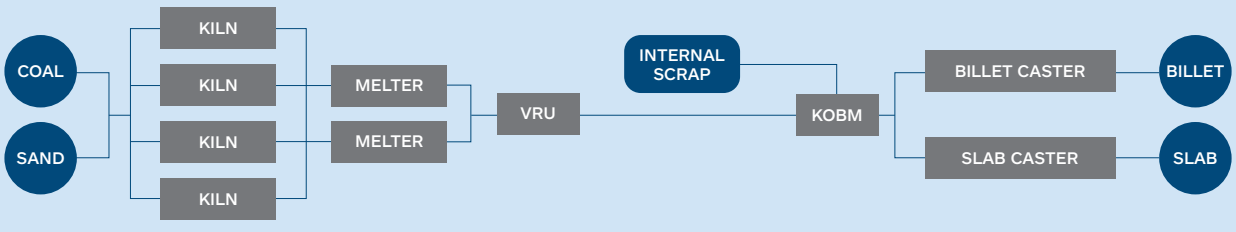
The EAF project exemplifies the benefits of a local circular economy model for both our industry and country. It enables us as a nation to solidify the circularity of steel, with the EAF allowing the recycling and manufacturing of steel within New Zealand in a continuous loop. The introduction of a local EAF also creates the largest industrial decarbonisation effort in our country's history. Join us on this momentous journey as we forge a path to locally made, low carbon steel.

THE ELECTRIC ARC FURNACE PROCESS



Compared to the standard process, half the kilns and melter are required and external scrap can now be used.

THE ORIGINAL PROCESS



BENEFITS OF THE CIRCULAR ECONOMY

The project itself is a great example of how a circular economy model can benefit our industry, as well as our country. By recycling existing materials and products for as long as possible, we'll be extracting maximum value and extending the life cycle of our steel.

We're also partnering with Contact Energy which is helping to support their increasing delivery of renewable energy, and driving the circular economy model.

The EAF will allow domestic scrap to be recycled within New Zealand Steel's steelmaking process, increasing resource efficiency and reducing greenhouse gas emissions.

REUSE & RECYCLE

Local scrap steel products.

REMANUFACTURE

Scrap steel is collected, sorted, and then delivered to New Zealand Steel for processing in the EAF. From here it is melted and formed into new products such as steel billets.

REDUCE

Optimising the steel making process to minimise energy consumption, improve efficiency, and reduce carbon emissions.

BENEFITS OF THE ELECTRIC ARC FURNACE

Secures New Zealand's future in steelmaking.

Results in approximately 50% less coal use, equivalent to a reduction of 400,000 tonnes.

Powered by an average of 30 megawatts from New Zealand's largely renewable grid.

Reduces New Zealand's scrap steel exports by approximately 50%.

Removes 1% of the country's annual emissions.

Reduces total scope 1 & 2 emissions by more than 45%.

Eliminates a minimum of 800,000 tonnes of carbon emissions annually.

Equivalent to permanently taking at least 300,000 cars off the road.

Has the ability to reduce electricity demand when the power grid is under stress.

Sets the platform for our net-zero goal by 2050.

Enables steel production in New Zealand with an average embodied carbon per tonne below the world average.

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If you would like to know more
email info@pacificsteel.co.nz
call 0800 7227 8335
or visit pacificsteel.co.nz

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