

Electric Arc Furnace

THE FUTURE OF STEELMAKING



The Electric Arc Furnace (EAF) secures the future of steelmaking at Glenbrook. It will enable New Zealand Steel to shrink its carbon footprint and will enable New Zealand to be as close to self-sufficient as possible, using renewable energy and recycling scrap steel.

Key Facts

- The \$300m (approx.) project spend will be co-funded by New Zealand Steel and Government.
- With the EAF we are expecting our average crude steel embodied carbon to start off up to 1.6t CO₂-eq per tonne of steel, and then reduce further with increased scrap ratios against a world average of 1.9t CO₂-eq.
- It will result in approximately 50% less coal use – a reduction of 400,000 tonnes.
- This move will reduce Glenbrook's carbon footprint by 800,000 tonnes from day one - that's 1% of the country's annual emissions and the equivalent of taking approximately 300,000 cars off the road permanently.
- The EAF will reduce New Zealand Steel's emissions by more than 45% and sets the platform for our net zero goal by 2050.
- It will avoid the cost and carbon miles of exporting about half of New Zealand's scrap steel - about 300,000 tonnes a year.
- It will be powered by an average of 30 megawatts (MW) firmed renewably generated power.
- The EAF provides the flexibility to scale down production in times of peak demand.
- Steel has been produced at Glenbrook for almost 60 years and this will help secure the plant's future for generations to come.

