

Multi Cycling – Steel the (almost) forever material

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What is the major property of most metals - in particular steel – that sets them apart from other building materials?

It is their ability to be melted and reused (with only small material losses) without degradation of the base material. This is referred to as **Multi Cycling**.

Nearly all structural steel and most other types of steel are collected for their huge recovery value. Globally this is in the order of 500 million tonnes of steel per year.

In Australia, a recently commissioned report by Hyder Consulting showed that in Australia minimal steel building products were going to landfill and estimated that over 90% was being recovered. ASI estimates that steel is more recyclable than any other major building construction material and in fact for structural steel the recycling and reuse rate is greater than 95%.

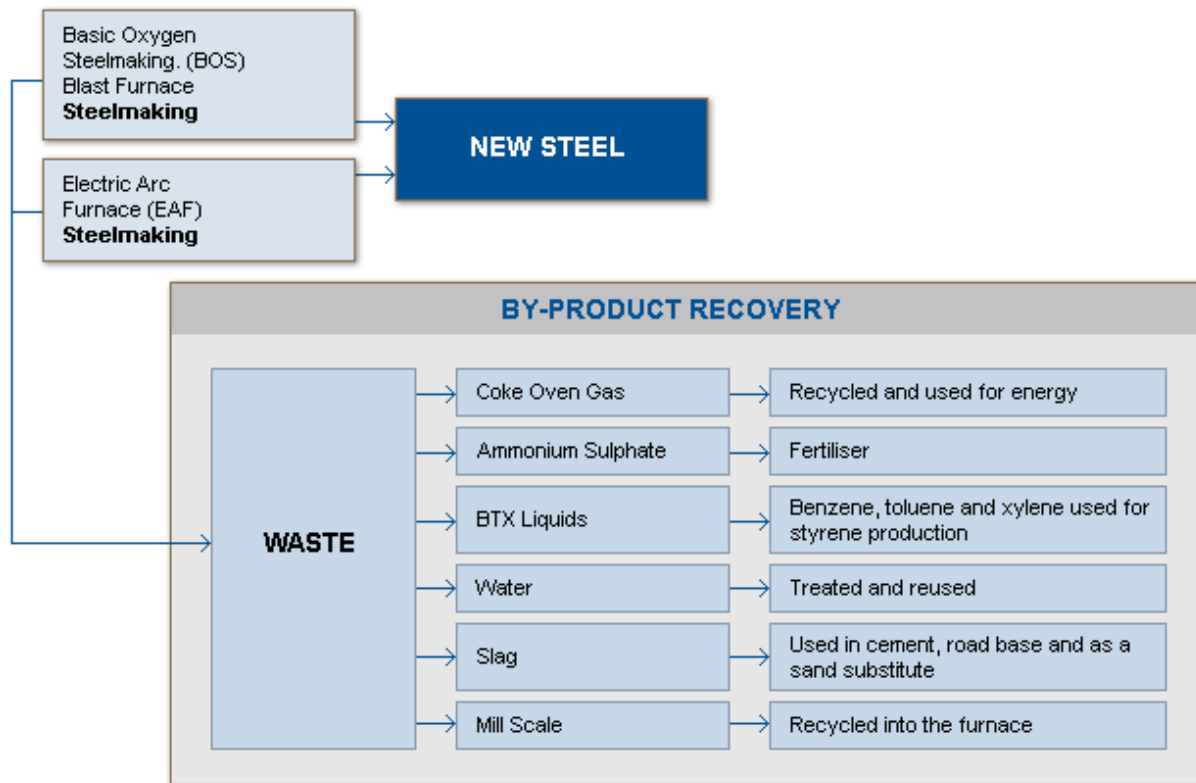


The magnetic properties of steel make it easily separable and recoverable from waste and the high value of scrap makes it a much sought after material. This can be seen in the industry around collecting steel on council pick up day.

Most importantly, the efficient recycling and reuse of steel in circulation saves the planet's valuable resources, but also offsets the energy required in the production of further quantities of steel. In fact, all steel produced today consumes a proportion of recycled content which in turn has had a percentage of recycled content. This process happens without any degradation of the base material, unlike glass or plastic, timber or cardboard which need to find a second home in a lesser quality product. For these materials, their next home is often landfill.

The other amazing attribute about the steel production process is that it generates useable waste products. Road base, fertiliser and recovery of other products make the steel industry a source material for other important downstream industries.

AUSTRALIAN STEEL WASTE RECOVERY



Steel enjoys an enviable position of recovery and reuse. Its ability to be alloyed for high strength enabling it to increase its strength for reduced mass, makes it one of the most fascinating materials for design in sustainable construction.