

POLICY CONSIDERATIONS FOR RECLAIMED STRUCTURAL STEEL



As steel has such a large impact in the generation of greenhouse gas emissions – 14% of industrial GHG in the UK - there are a multitude of policies, industry action plans and commitments in place which focus on decarbonisation.

Common recommendations include the need to change from Basic Oxygen Furnaces (BOF) to Electric Arc Furnaces (EOF). These allow for more steel scrap to be used, in which in turn creates a demand for this scrap (of which around 4 million tonnes is exported abroad every year).

Longer term ambitions include reducing emissions from the steel making process, including the use of hydrogen and carbon capture use and storage. However, the use of reclaimed steel is not often featured, and when it is, there is a lack of quantification of its role. This is in spite of there being economic and environmental wins for UK Plc including:

- Carbon savings - the use of reclaimed steel can save up to 96% carbon compared to virgin steel; this would amount to over 250,000 tonnes of CO₂e savings a year by 2050.
- Cost savings - reclaimed steel can be at least 20% lower than virgin steel, taking into account the extra requirements that maybe needed for steel, this equates to a cost saving of £40.2million per year.
- Resilient supply chains – ensuring the steel is kept in the UK and refabricated here – this could be nearly 150,000 tonnes per year by 2050.

Note, the above assumes 45% reuse of reclaimed structural steel (columns and beams) by 2050 (see [Scenario Mapping](#) document for more information).

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Relevant policies and strategies

The use of reclaimed steel is aligned to a number of Government policies which include (but are not limited to):

- Our target for net zero by 2050 and strategies i.e. [Net Zero Strategy: Build Back Greener](#)
- Commitments for the steel industry in the [Industrial Decarbonisation Strategy, 2021](#)
- Accessing opportunities in the [Steel Procurement Taskforce: final report](#)
- Circular economy opportunities in the [Resources and Waste Strategy](#)
- Meeting the ambitions of the [Zero Waste Routemap in Construction](#)
- Environmental target halve the waste per person that is sent to residual treatment by 2042 in the [Environment Act](#)

For public procurement, Government has made it clear that all Contracting Authorities are to make immediate progress towards achieving Net Zero, steel reuse can support this through the reduction of whole life carbon (WLC) with assessment now required in the [Construction Playbook](#) and related guidance [sustainability/next zero guidance](#). At a local level, steel reuse supports the move towards the circular economy and whole life carbon assessment e.g. in the [London Plan](#).

A call to action!

To enable more reuse of structural steel, recommendations for Government are:

- Quantify the role steel reuse can play on the route to net zero and encompass this within relevant policies and strategies
- Develop favourable policy conditions, where reuse is preferred, which could be from meeting carbon targets (for example, requiring embodied/whole life carbon assessments)
- Support industry in using more reclaimed steel, ensuring that it is comparable to using virgin steel; for example, investing in smaller businesses wishing to stock and refabricate reclaimed steel
- Enabling steel reuse in public procurement; with projects having to at least consider the potential of using reclaimed steel through for example the use of pre-demolition audits, circular economy plans and whole life carbon assessments.
- Applying circular economy principles in public procurement such as design for deconstruction, so that steel reuse can be designed in from the outset of a project.

Recommendations for the steel industry include:

- Update various route maps and actions plan to include steel reuse as a key component on the path to net zero and quantify its potential
- Commit to advancing steel reuse by developing actions relevant to your role in the supply chain and work collaboratively on steel reuse
- Take more responsibility for steel structural products at end of life, by encouraging the reuse by working with reclaimed stockholders/fabricators
- Design products to enable future reuse and provide appropriate information to aid traceability