

## CO<sub>2</sub> Emission Taxes and the European Copper Industry

ECI requests measures to support the European copper industry, as an energy-intensive industry exposed to carbon leakage, by the granting of **free allocations for the direct and indirect effects of CO<sub>2</sub> Emission Taxes**.

In addition, ECI advocates support for the amendments that envisage no obligations for the metals recycling sub-sector under the ETS scheme.

The auctioning of Emission Trading Rights continue to be detrimental to metal production processes, particularly as electricity producers pass through CO<sub>2</sub> costs in their prices to consumers. For the copper industry, the indirect effects of the EU ETS are higher than its direct effects. In addition, with copper prices set on international markets, the European industry cannot pass these costs through to its customers.

As a result of this CO<sub>2</sub> pass through, the European copper sector is at serious **risk of carbon leakage**. Consequently, ECI strongly requests that the sector receives free allocations for both indirect and direct emissions. Allowances allocated for indirect emissions should be based on sectoral benchmarks.

ECI supports the approach that free allocations must take place in a manner that provides incentives to use best available technologies that increase energy efficiency and reduce emissions, and that encourages the use of clean processes, substitutes, biomass, and other clean energy generation processes.

The European copper industry has invested several 10's of M€, over the past 15 years, to comply with increasingly strict EU and national environmental legislation, thus maintaining its licence to operate. However higher electricity consumption, with its resulting indirect emission's impact, has been required to operate these investments. The industry should not be a victim of its commitment to be at the leading edge of environmental performance.

In calculating ratios to determine whether the European copper sector is at risk of carbon leakage, the concept of "product price" is not relevant. The main income, or "value added", for the smelting/refining sector is the processing fee (made up of treatment and refining charges and production premiums) paid by the mining companies to convert their copper concentrates into metal.

This processing fee is independent of the global metal prices reported by commodity exchanges, such as the London Metal Exchange. It is cyclical in nature, with its absolute value determined by the global supply/demand balance for copper concentrates. The sector's operating costs, including energy, labour, capital recovery, and direct carbon need to be paid for out of this "value added" income.

Based on historical data, provided by the independent analyst Brook Hunt for the period 2004 to 2007, these costs, as a % of value added, can be broken down into:

- Energy	10 to 25
- Labour	10 to 30
- Capital (depreciation)	6 to 20
- Other	13 to 41

Further increases due to indirect or direct carbon costs will have an extremely negative impact on the competitiveness of the European copper sector, particularly if a similar burden is not imposed on non-European industry participants. Figures presented by ECI, at the ECCP Working Group on April 11<sup>th</sup> 2008, showed that the estimated additional carbon cost of 46 €/T equalled the sector's average profit over this period.

In 2006, 41% of European copper demand was met through the recycling of "clean" scrap, from throughout the copper value chain, and "dirty" scrap from a broad range of end of life applications. The smelting/refining sector converts both imported concentrates and mainly "dirty" scrap into primary metal.

Copper recycling strongly supports sustainability, preserves primary resources, and helps the global environment. The CO<sub>2</sub> savings from recycling, versus mining, one tonne of copper are equivalent to those emitted by a car travelling 18,000 km (at 130 gm CO<sub>2</sub>/km). The recycling sub-sector should, therefore, be exempt from any CO<sub>2</sub> related taxes.

Any downsizing in the European smelting/refining sector would result in increasing exports of valuable secondary raw materials to far lower standard operations (for environment and human health) in some non-European countries. Already, over the past 3 years, the EU's net exports of scrap were over 600 KT/yr.

It would also require a sudden and substantial increase in primary metal imports into Europe, without which there would be a serious negative impact on the copper value chain, which feeds its products into critical societal needs such as energy efficient electricity generation and use, low carbon renewables, transportation, hospitals, household appliances, telecommunications, etc.

**In summary, without the granting of free allocations for direct and indirect emissions, the European copper sector will become seriously uncompetitive, relative to its competitors in other parts of the world, and will be unable to deliver a return to its shareholders. This will lead to significant downsizing, resulting in carbon leakage through the need to increase production in existing, lower standard operations in non-European countries. It will also substantially increase the EU's dependency on importing a raw material that is critical to the sustainable development of its economy (representing 25% of world demand, the EU 27 is the second largest copper user in the world after China).**

Attachment I describes the front end of the copper sector, as well as provides a supply breakdown across EU production, imports and recycling.

For further information, please visit [www.eurocopper.org](http://www.eurocopper.org) or contact ECI at [eci@eurocopper.org](mailto:eci@eurocopper.org).

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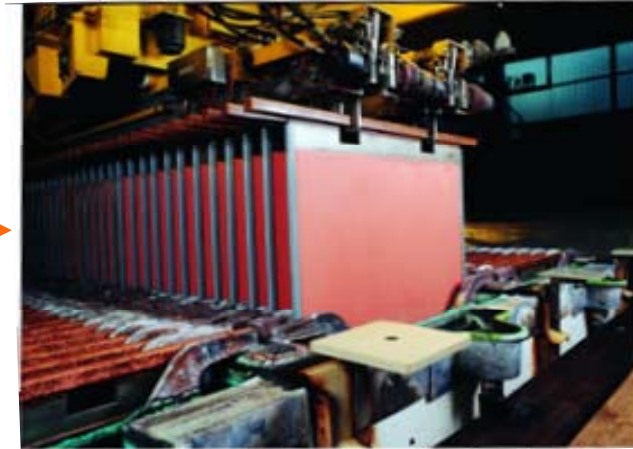
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# EU Copper Smelting/Refining Sector – processes concentrates and “dirty scrap”



Copper Concentrates (30% Cu)

Primary  
→



↓ Copper Cathodes (99.99% Cu)

↗ Secondary  
“dirty scrap”



Scrap (10 - 99% Cu)

→ Direct Melt  
“clean scrap”



Billets & Slabs into value chain

# Copper Supply in EU 27 - 5.8 MT

- EU 27 accounts for 25% of world demand (23 MT)
- Main EU mines in Poland, Sweden, Portugal & Bulgaria
- Metal (cathode) and concentrate imports mainly from Chile, Peru, Mexico and Indonesia
- Recycling supplied 41% of European demand in 2007
- EU is net exporter (600 KT/yr) of recycled materials (secondary/scrap)
- Smelting/Refining sub-sector covers 100% of yellow and brown, plus one third of orange segment (2.4 MT)

