

Impact of EU ETS on EII

Carbon Leakage-Copper Sector

IFRI Energy Program

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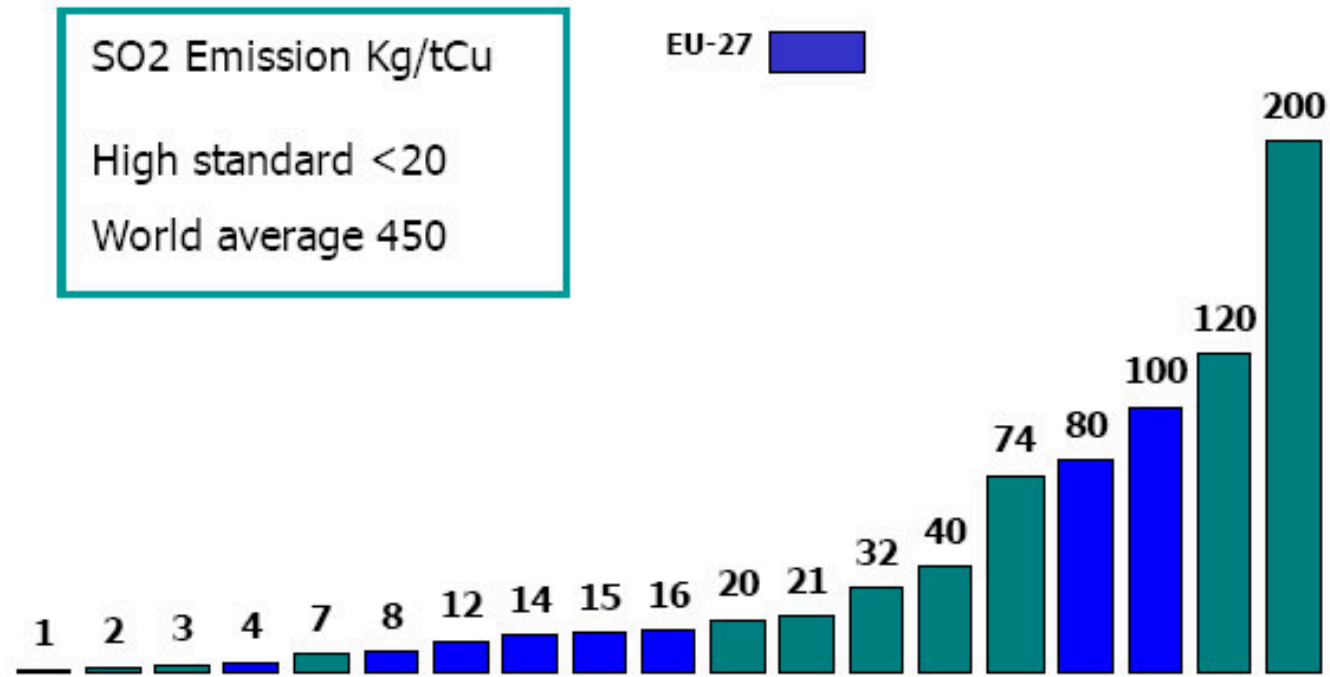
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Significance of European Copper Sector

- 90% of EU refined Copper production is owned by EU companies
- EU refined Copper demand is 4.3 million tonnes of which over 50% is imported
- 65% used in electrical energy efficiency, renewables, and ICT
- Copper is 100% recyclable without any loss of performance
- Innovation eg. in Healthcare and fuel efficient transport
- Employs 50,000 people

European Copper Industry is among the cleanest in the world



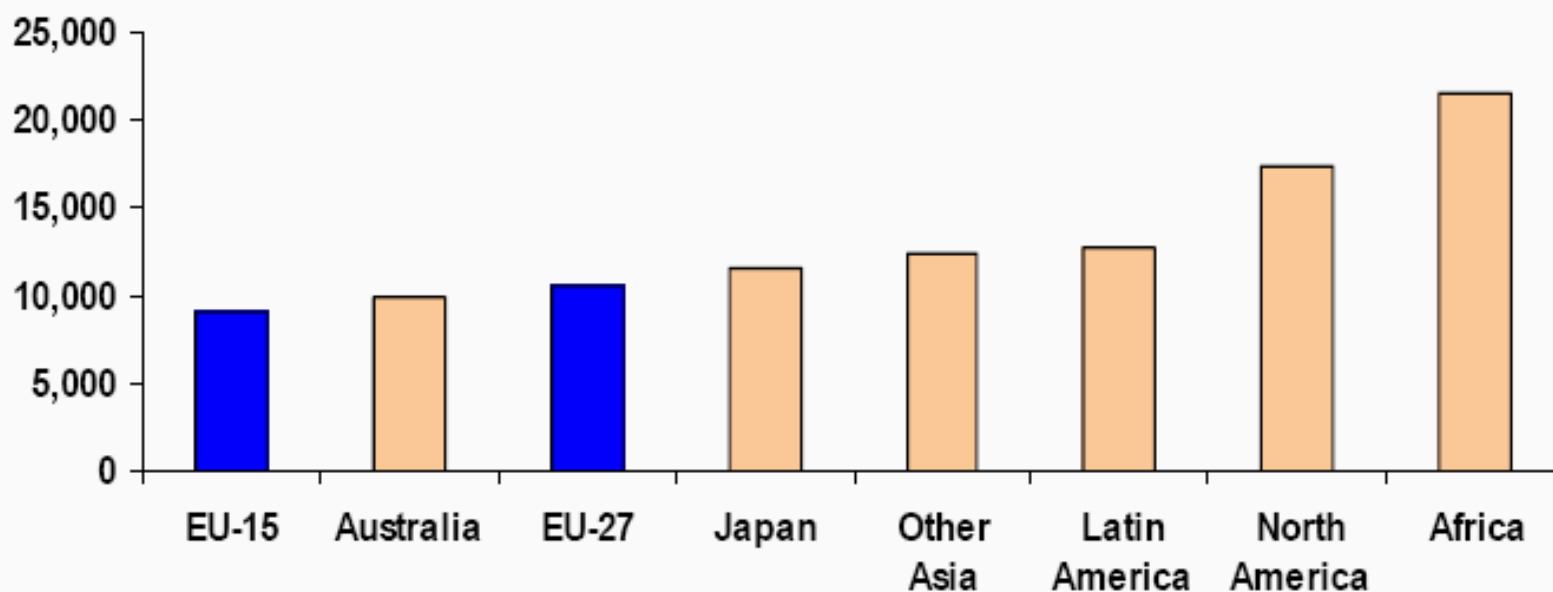
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Source: Brook Hunt

European Copper production is the most energy-efficient in the world

... and, Energy in Europe is coming from comparatively cleaner fuel-mix.

Energy Consumption (MJ/t cathode)



5

Source: Brook Hunt

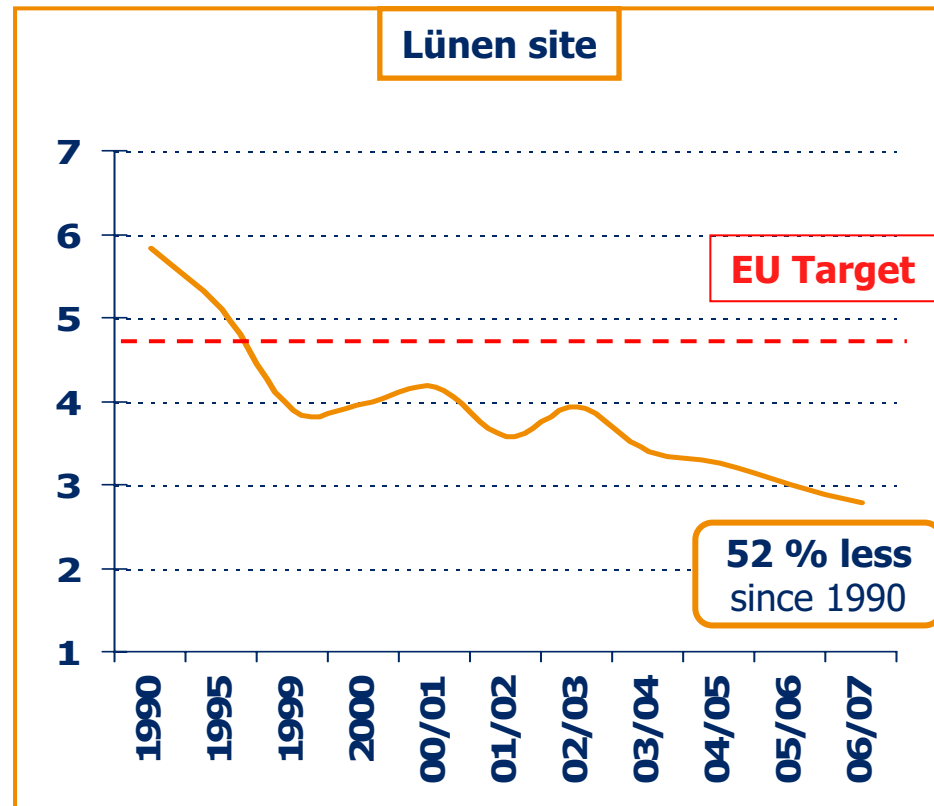
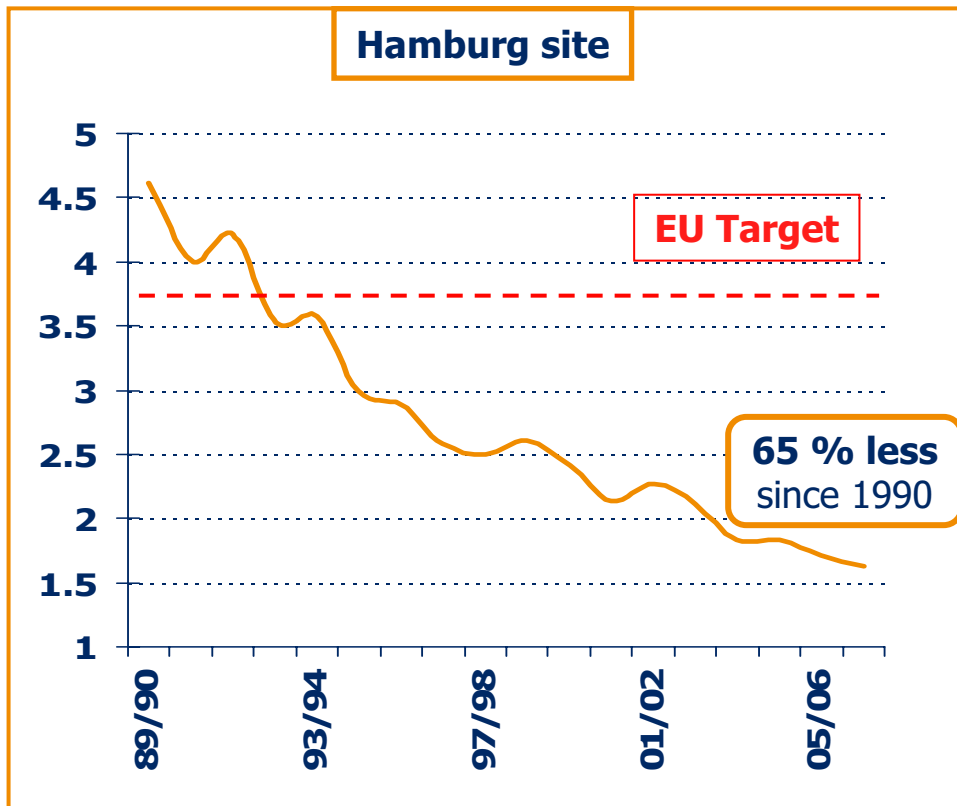


On-going Aim: Decrease specific energy consumption...



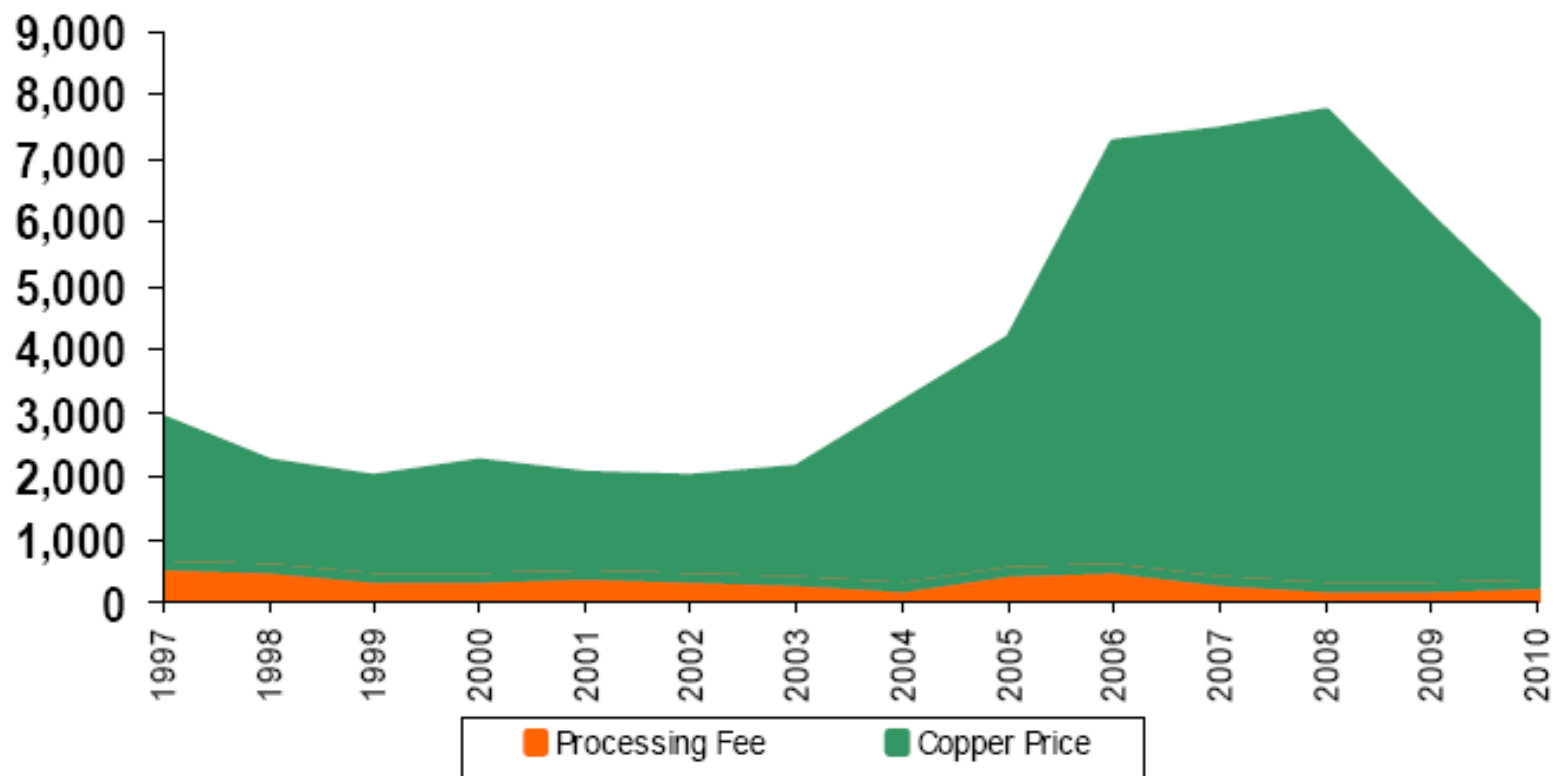
... 25% of electricity consumption is for Environmental Protection ...

Specific Energy* consumption of NA AG since 1990_(MWh/t Cu)



... and a further improvement will require substantial investments.

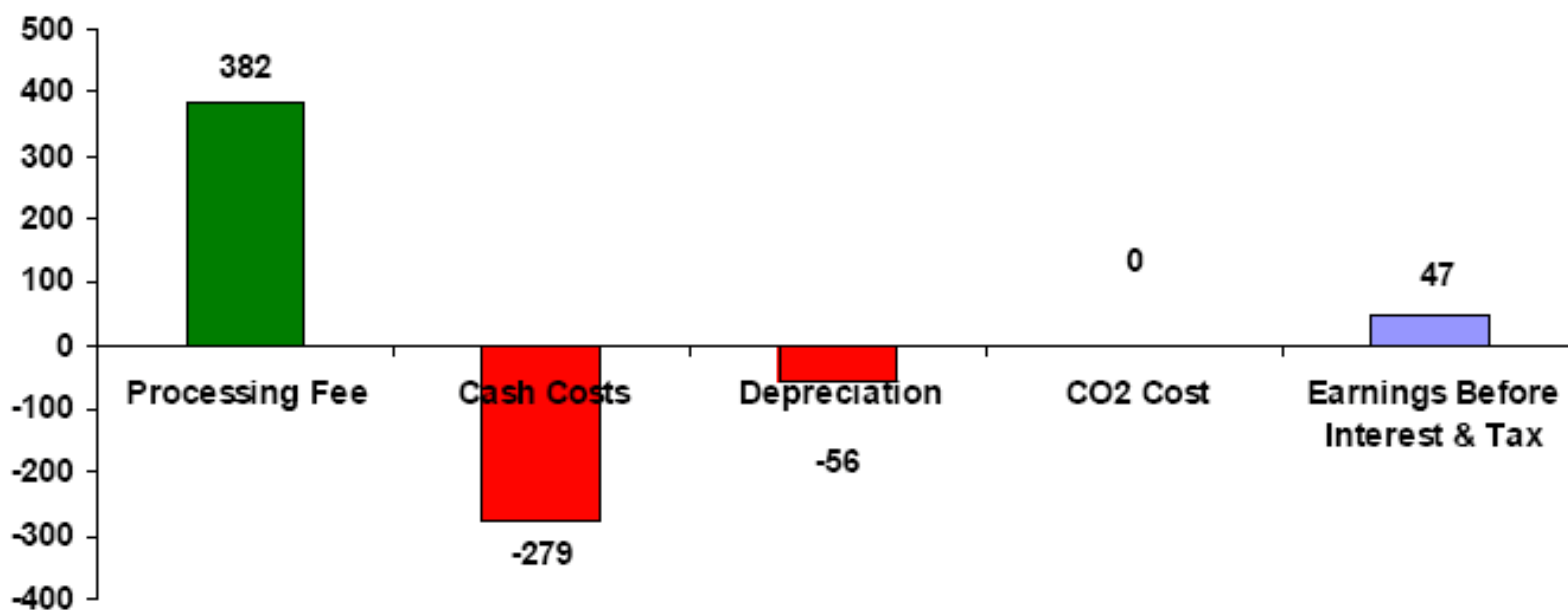
Processing Fee is independent of global LME Copper price



6

Source: Brook Hunt

EU Copper production marginally profitable in 1999 to 2010



7

Source: Brook Hunt

Additional CO2 cost makes European Copper production unsustainable



8

Source: Brook Hunt



Summary

- EU Copper production is among the cleanest and most energy efficient in the world
- Global LME Copper Price is not a relevant criterion for CO2/energy intensity of EU Primary, Secondary and Copper Processing sectors
- Recognised Global Processing Fees must be used:
 - Treatment Charge & Refining Charge for Smelting & Refining
 - Production Premium for Copper Processing
- No possibility of CO2 cost 'pass-through' to customers
- EU Copper Industry unsustainable with additional ETS cost burden
- Serious risk of carbon leakage for the whole EU Copper value chain
- **Recycling should be exempted from any CO2 related taxes**