

## DG ENTR Lot 8: Ecodesign for Power Cables in Indoor Electrical Installations

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I thank the consultants for their efforts conducting the study, please find some general draft comments below.

Ref.	Section	Page	Topic	Comment	Proposed change	VITO reply
1	Task 1, 2, 3, 4, 5, 6	II	Executive Summary	In task 7 it states that an overall executive summary is planned. If this overall summary does not replace the executive summaries in each individual task, it would be more useful if these smaller summaries give a summary of the Task findings in this section, instead of an introduction to the MEERP.	Give overview of Task results. Or change title to Introduction instead of Executive Summary.	Only one overall executive summary for all tasks will be kept.
2	Task 2 Line 27  And subsequent section 2.4.1.1 Copper	29 and 33	Copper availability	<p>“The European Copper Institute confirmed that copper is <b>not</b> becoming a scarce resource.”</p> <p>This is possibly too strongly worded and emphasized. In their comments ECI stated: “As for copper scarcity, please note that according to USGS data, since 1950 there has always been, on average, 40 years of copper reserves and over 200 years of resources left.”</p> <p>Depending on how you interpret this, copper can be deemed scarce, and certainly not infinite. It may be more neutral to write “According to The European Copper Institute, copper is not becoming a scarce resource.”</p> <p>Furthermore, the infographic on the copper institute’s website states: <a href="http://www.copperalliance.eu/industry/economy">http://www.copperalliance.eu/industry/economy</a></p> <p>“Trends are emerging which have pushed up the price: A tonne of mined copper ore now yields 30% less copper than in 1990... only 6% of copper resources discovered in the last decade have been upgraded to reserves... more than a fifth of world copper will come from Peru, Congo and Zambia by 2016 – all high risk conflict areas.”</p> <p>The definition of criticality is based upon the risk of supply interruption. Nevertheless, China/Asia’s current demand dwarfs that of the EU. It can be expected that environmental impacts increase as extraction becomes harder.</p>	It is understood that determining resource criticality is not the purpose of the study; however increased resource use resulting from regulation is a sensitive issue and a slightly more balanced presentation of the issue would be appreciated, i.e. not emphasizing viewpoints in bold type.	<p>Wording has been changed.</p> <p>Text added: When comparing the global estimated copper resources of 3500 million tonnes with the estimated stock (see 2.2.2.3) of 3,25 million tonnes in non-residential services buildings in the EU it is only about 0,1 %. Therefore increasing over time the stock with 50 to 100 % will not exhaust the global copper resources however it can have an impact on the product price, which will be taken into account in the sensitivity analysis in Tasks 6&amp;7.</p>

3	Task 7	General Comment	<p>Given the impact of increased CSA on copper usage, it would be valuable to have a direct comparison of increase in copper (or aluminium) usage vs. energy savings for each policy intervention across the EU. Copper remains a valuable resource, even if not scarce at this time. The transition to low carbon economies will also increase the demand for copper.</p> <p>What would be the consequences of potentially increasing EU copper cable demand requirements by 2.5x? If cables represent about 50% of usage, this implies increasing EU copper demand by 125% (though of course industry/service sector will only be a fraction of this).</p>	Add section which weighs up the pros and cons of increased copper resource use vs. energy efficiency?	<p>See previous remark.</p> <p>Agreed that a similar exercise could be done taking into account all product groups (motors, ..), but this is outside the scope of this study.</p>
4	Task 7		<p>It is good to see that a sensitivity analysis has been carried out. A further cross check of circuit/building stock rates may be possible by using the usage rates for refined copper over the last 20 years. These have been constant at around 4,200,000 metric tonnes per year in the EU since at least 1980 (or <a href="#">EU-27 at ca. 3,000,000 tonnes</a>). Secondary material/recycling rates also remain relatively constant at around 41-45%. If on average the copper cable usage is about 50%, then it may be possible to calculate a stock rate for comparison. See regional split on page 37 of the ICSG 2014 fact book: <a href="http://www.icsg.org/index.php/press-releases/finish/170-publications-press-releases/1959-2014-world-copper-factbook">http://www.icsg.org/index.php/press-releases/finish/170-publications-press-releases/1959-2014-world-copper-factbook</a></p> <p>Other studies use EU new building rates of e.g. 0.5% and renovation rates of 1%. See e.g. p107 <a href="http://www.bpie.eu/eu_buildings_under_microscope.html#.VFubaJOwdHq">http://www.bpie.eu/eu_buildings_under_microscope.html#.VFubaJOwdHq</a></p>	Make cross check of stock growth/sale rates with copper usage statistics. If sales rates are not increasing, the stock growth rate over time reduces, from e.g. annual 4% in 1990 to 1% in 2050, i.e. additional rather than compound interest.	<p>Additional growth/sales rate is used now in task 7. The results are checked with the predicted copper sales in the working plan.</p> <p>Building growth rates differ per sector (see task 2). Sensitivity case 1 shows the results when using smaller growth rates.</p>