



ELC explanatory position on Carbon Footprint

July 2008

What is a Carbon Footprint?

“ The term ‘carbon footprint’ has become tremendously popular over the last few years and is now in widespread use across the media – at least in the United Kingdom.

With climate change high up on the political and corporate agenda, carbon footprint calculations are in strong demand. Numerous approaches have been proposed to provide estimates, ranging from basic online calculators to sophisticated life-cycle analysis or input-output-based methods and tools. Despite its ubiquitous use however, there is an apparent lack of academic definitions of what exactly a ‘carbon footprint’ is meant to be.”

ISA^{UK} Research Report 07-01: A Definition of 'Carbon Footprint'

Some Definitions of Carbon Footprint

“ Carbon footprinting measures the amount of carbon emissions produced by the things we do. From flying, to driving our cars, to the things we buy, every one of us leaves a carbon footprint on the environment. The carbon figure on our packs expresses the total calculated output of carbon emissions connected with the product's lifecycle - from seed, to store, to final disposal of the pack. ”

The Carbon Trust – Private company set up by the UK Government

“ A Carbon Footprint is a measure of the impact human activities have on the environment in terms of the amount of greenhouse gases produced, measured in units of carbon dioxide.”

Carbon Footprint Ltd, Hampshire, UK

“ Carbon footprint (CF) – also named Carbon profile – is the overall amount of carbon dioxide (CO₂) and other greenhouse gas (GHG) emissions (e.g. methane, laughing gas, etc.) associated with a product, along its supply-chain and sometimes including from use and end-of-life recovery and disposal. ”

European Commission – Joint Research Centre Institute for Environment and Sustainability, Ispra (I)

Other activities

A carbon label, which shows the carbon footprint embodied in a product in bringing it to the shelf, was introduced in the UK in March 2007 by the Carbon Trust. Examples of products featuring their carbon footprint are Walkers Crisps, Innocent Drinks, and Boots shampoos.

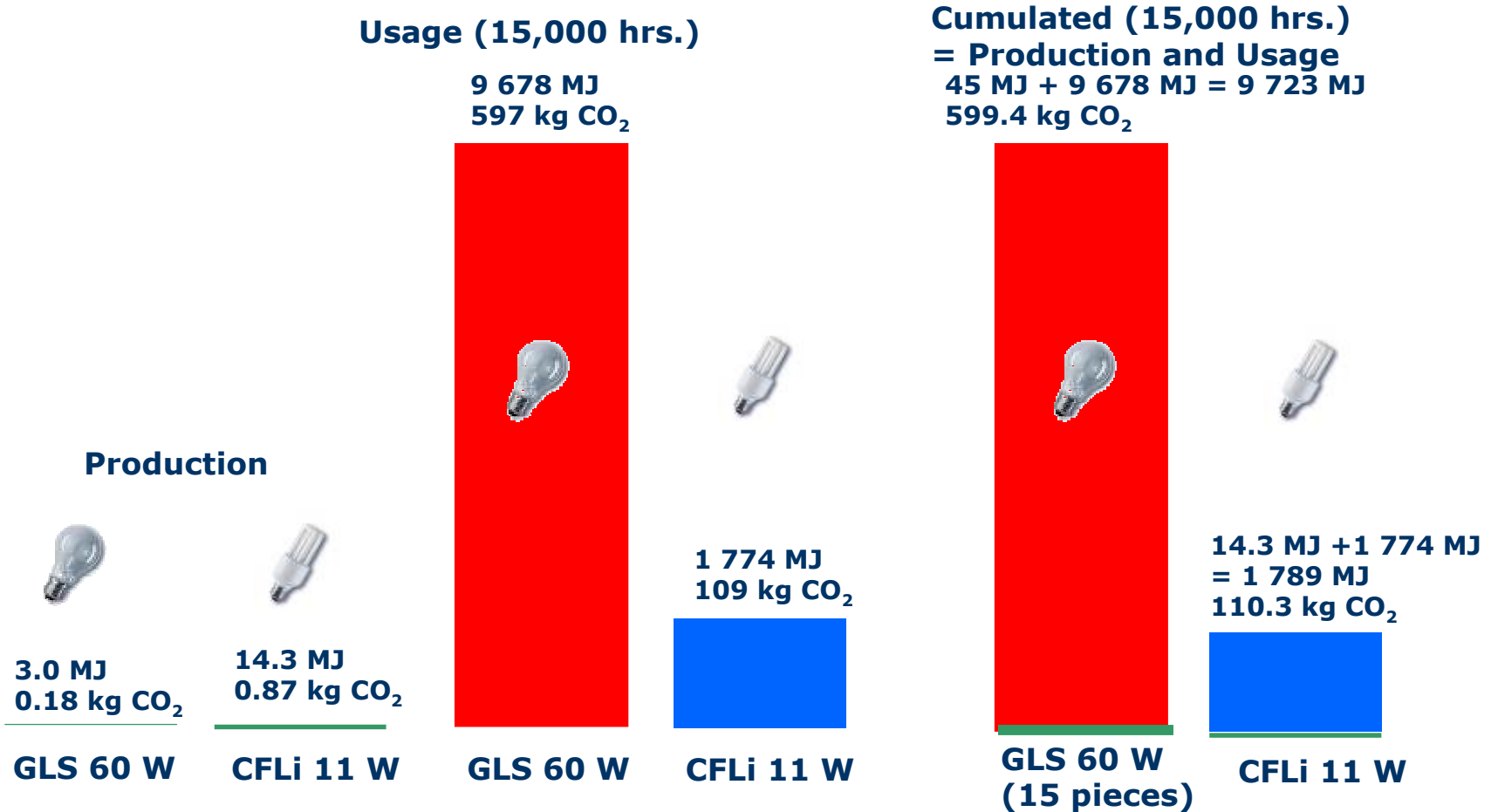
The Climate Conservancy, is a U.S. non-profit founded by Stanford University scientists that is working with companies to assess the GHGs emitted across the full life cycle of consumer packaged goods. The organization plans to label products with a Climate Conscious metric based on GHG intensity (CO₂e per \$) in order to provide a meaningful standard for comparing different products.

CarbonCounted, which launched in early 2007, is a Canadian not-for-profit based GHG carbon label system that allows companies to link with and leverage their supply chain. The CarbonCounted footprint can be displayed on a product or service. CarbonCounted is a "live" carbon dioxide emission footprint with the entire supply chain continually participating as opposed to a static calculation.

Carbon Reduction Institute, NoCO₂ & LowCO₂ certification labels were launched in Australia to allow consumers to determine the reductions of GHG emissions that companies have made. The Carbon Reduction Institute uses a combination of direct life cycle studies and life cycle analysis based on a financial control rational to determine the carbon footprint of companies.

Source: <http://www.vivagreen.com/carbon-footprint>

CED – GWP* of lamps

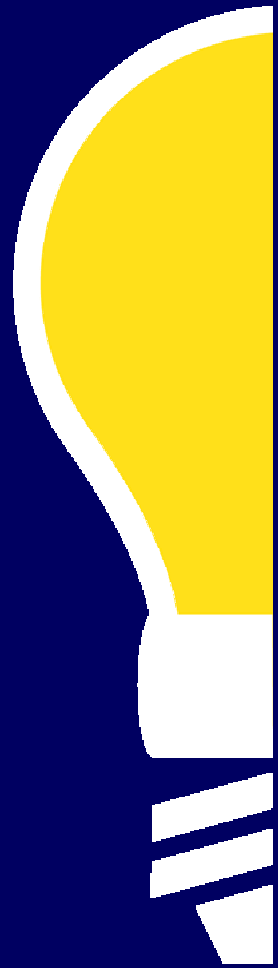


Source: OSRAM internal LCA studies
ELC ref.nr.080708

* CED: Cumulated Energy Demand; GWP: Global warming potential
CO₂ emission during the usage calculated with 0.5 kg CO₂/kWh

Conclusions

1. The term “Carbon footprint” is not well defined yet and still under discussion.
2. There is no standardized methodology for scope, evaluation, calculation, assessment.
3. The total CO₂ emissions of energy using products are caused by and usually defined by their energy consumption during the use phase of their life cycle.
4. For lamps, over 98% of the life cycle’s cumulated CO₂ emissions are produced during their use phase.
5. The energy consumption of lamps for domestic lighting is clearly classified by the EU energy label.
6. The EU energy label therefore is the proper information tool towards the consumers to optimize their choice in terms of energy efficient lamps and related CO₂ emissions.



EUROPEAN



LAMP



COMPANIES



FEDERATION

