

## About The CRU Emissions Analysis Tool

### Q. Who can licence the CRU Emissions Analysis Tool?

A. The CRU Emissions Analysis Tool data is available under licence to industry participants for their own use. The terms of usage expressly forbid re-publication or onward dissemination of the data contained.

### Q. Can the media source data from the CRU Emissions Analysis Tool for use in the Press?

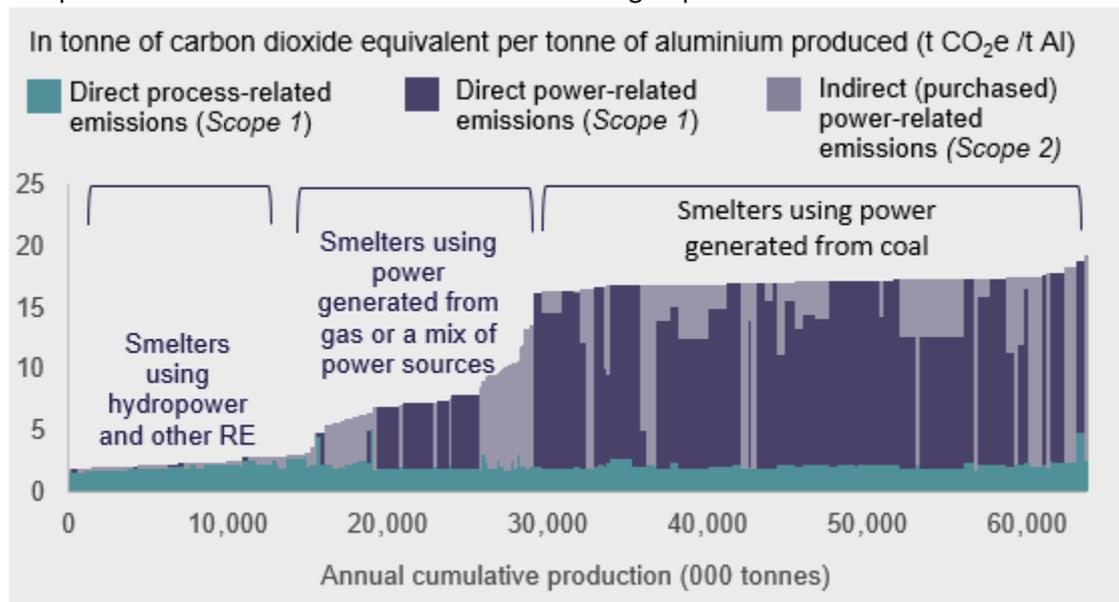
A. CRU recognise the constructive contribution that transparent and even-handed reporting will make to the understanding and efforts to decarbonise globally, but CRU is mindful of the potential for data misuse and abuse. Taken out of context, it is easy to highlight shortcomings of individual mines, refineries, smelters, companies, countries and industry practices and processes. That is not the intention of CRU Group, our data are only available by courtesy and cooperation of the industry players themselves. Please contact us if you would like to reference selected data.

### Q. Under what circumstances would CRU let the media publish data constructively?

A. The service is primarily for the fee-paying industry participants themselves. However, CRU is talking to various industry bodies who may wish to play a part and further illuminate the issues facing the industries in question. We also recognise our information is of wider interest. Please contact us if you would like to reference selected data.

### Q. What kind of information will the CRU Emissions Analysis Tool show?

A. As well as the granular plant by plant data with component parts that can be dissected and compared there are the bigger picture trends. For example something as straightforward as a comparison of the differences in emissions according to power source for aluminium smelters:



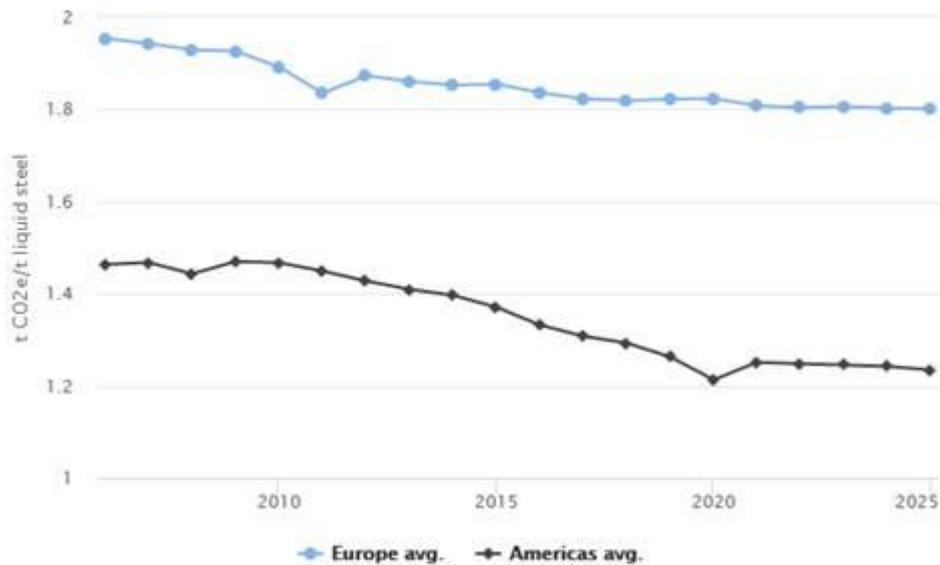
DATA: CRU Aluminium Cost Model

**NB. This image may be reproduced rights-free: Source CRU Group.**

### Q. For which commodities can greenhouse gas emissions curves be plotted?

A. Currently the fully interactive GHG emissions tool can be plotted and tabulated for bauxite, alumina, aluminium, iron ore, metallurgical coal and steel. GHG emissions can be compared by site, producer, geography, type of process and production volume over time (with forward looking projections). For example; steel GHG emissions by weighted average for European producers vs. US producers over time, see chart below.

## Liquid steel - Scope 1 & 2 site



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### Q. How do we know the data is accurate?

**A.** CRU have verified its input data with a significant proportion of industry participants, and whilst differences to reported data have been found in many cases they are readily explained by differences in methodology/interpretation allowable under the rules. Moreover, differences between public sources and EAT output will reflect our work on standardisation, are not a question of right and wrong and merely serve to illuminate the need for an independent level playing field.

### Q. Is it possible to change steel and aluminium from low-cost to low-carbon?

**A.** Potentially it is, though it presents a formidable challenge. The incentives will need to be built in constructively and it won't be without financial cost and new technologies. Policymakers will need to start with a granular and standardised data set that aids understanding and accurate decision-making. Industry participants also depend on accurate information as they strive towards low-carbon supply chains.

### Q. What is the coverage?

We include all large mines, plants and smelters that produce these commodities along a supply chain from mine to factory gate. This would capture all major exporters and all major suppliers of seaborne sales. Future data includes all important new projects likely to come online.

### Q. How much is a licence?

**A.** Please contact CRU if you would like a demonstration of the service and for any further details.

### Q. What is your methodology for calculation and how does this reflect published data?

**A.** A high level of consistency and accuracy is achieved by our Cost experts modelling production, costs and emissions all together and reconciling with published data on all three. They estimate at a highly granular process level, assessing inputs and outputs and so efficiency and net emissions of each process.

One set of sources of emission data are company sustainability reports and associated technical documentation, as well as Government Portals (e.g. EU ETS). There are many different frameworks to disclose environmental data in reports so an understanding of these compared to the CRU methodology is required to reconcile them.

The third source is from the companies themselves. We engage directly with the owners and operators of these mines and request key data. Moreover, as subscribers to this data already, many

of them flag anything that looks slightly off. We then investigate this and make adjustments where necessary. This means our data can continuously improve.

We align most closely to the GHG Protocol, by far the most established methodology for quantifying emissions across the entire mining and minerals sector.

**Q. Can CRU advise companies how to decarbonise?**

**A.** CRU's Carbon Emissions Services include bespoke consulting services in the emissions and broader ESG space. From providing calibrated emissions data for corporate reporting, through to investment strategy, supply chain audit and litigation support, we can help you to link your marketing, strategy and sustainability teams and develop an emissions fluency across your business. Please contact us for advice and strategies on decarbonisation and emissions reporting challenges.

**Q. Could governments use this as a basis for carbon tariffs?**

**A.** CRU aims for its emissions data to be of high enough quality, of a global scope and granular enough to answer the different relevant questions that need answering for decarbonisation. These would include policy formulation.

**About CRU**

CRU offers unrivalled business intelligence on the global metals, mining and fertilizer industries through market analysis, price assessments, consultancy and events.

Since our foundation by Robert Perlman in 1969, we have consistently invested in primary research and robust methodologies, and developed expert teams in key locations worldwide, including in hard-to-reach markets such as China.

CRU employs over 260 experts and has more than 10 offices around the world, in Europe, the Americas, China, Asia and Australia – our office in Beijing opened in 2004.

When facing critical business decisions, you can rely on our first-hand knowledge to give you a complete view of a commodity market. And you can engage with our experts directly, for the full picture and a personalised response.

CRU – big enough to deliver a high quality service, small enough to care about all of our customers.