

Four good reasons for Cement benchmarking



Holcim

Bruno Vanderborght

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Cement benchmarking incentivizes energy & CO₂ reductions and innovation throughout all processes and products

Scope of IPPC and ETD Directives



Clinker benchmark
Intermediate substance

Cement benchmark
Products Sold

32% of total maximal potential to reduce through:

- Energy efficiency
- Fuel mix
- biomass

68% of total maximal potential to reduce through:

- Clinker substitution
- Product development
- Product innovation
- Consumer choice

Examples of product development and innovation for low CO₂ cement



- Ordinary Portland Cement: CEM I 865 kg CO₂/ton
- Holcim Ferro 4: CEM II - 15% CO₂
- Holcim Ferro 3 NA CEM II - 30% CO₂
- Holcim Duo 4 NA CEM III - 40% CO₂
- Holcim Duo 3LH/NA CEM III - 50% CO₂
- Holcim Aqua CEM III - 70% CO₂
- Cemroc 45 kg CO₂/ton

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Clinker and Cement benchmarking do provide different incentives to improve and innovate

Installations with **high CO₂** emission per ton product will receive **more free allowances with clinker** benchmarking than with cement benchmarking.

For those installations, **real CO₂ cost**, i.e. the difference between emissions and free allowances, will be **lower with clinker benchmarking**.

Their real cost will be higher with cement benchmarking.

Thus the **incentive to reduce is lower with clinker benchmarking** and is **higher with cement benchmarking**.

Ecofys report 19 May 2009: “Clinker benchmarking gives a negative incentive to reduce emissions through clinker substitution, because it would lead to less free allowances in the next trading period.”

Cement benchmarking provides the highest incentive

Clinker benchmarking is a clear breach of the environmental intent and letter of the Directive (Article 10a(1))

China, Mexico, Brazil, South Africa are willing to discuss, and could possibly accept, efficiency objectives for certain industrial products.

It is unthinkable that they would agree to exclude the most effective and least costly emission reduction lever, i.e. clinker substitution.

It is unthinkable that they would accept clinker benchmarking.

USA: Waxman-Markey: the regulated product is cement

Only cement benchmarking will enable harmonization with systems in the emerging economies.

All cement companies in the WBCSD – Cement Sustainability Initiative have a corporate emission reductions commitment on CO₂ per ton cement(itious) products.

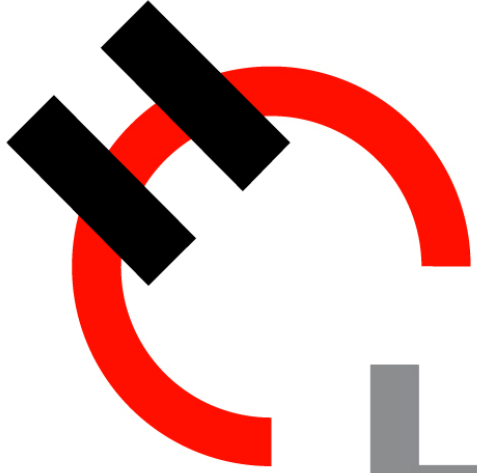
All companies publicly report CO₂ emissions and progress as CO₂ per ton cement(itious) products

Because it includes all improvement levers and shows best performance.

When then change when the allocation of emission rights is at stake?

Cement benchmarking:

- Drives innovation in processes, products and consumer choice
- Confirms EU leadership



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