

Gypsum and the Commission proposal on ETS: background information and analysis

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The European Gypsum Industry

With a turnover of over 10 billion EURO, the European gypsum and anhydrite industry operates 160 quarries and some 200 factories (plaster powder plants, plaster block plants and plasterboard plants) and generates employment directly to 28,000 people and indirectly for 85,000 people (plasterers and plasterboard erectors). It is one of ***the few fully integrated industries within the construction products field.***

We currently have three main operators covering 80% of the European gypsum products market. **SMEs are very active in Spain** in plaster powder manufacturing, with a direct employment of more than **2,300 employees, operating 26 quarries and 33 plants (powder plant, plaster blocks and ceiling tiles)**. There are also SMEs active in plaster block and plaster powder markets in other European countries.

The Gypsum Industry covers the ***whole life-cycle of the product.*** Indeed, the companies which extract the mineral "gypsum" also process it and manufacture the value-added products and systems broadly used in construction.

Gypsum Manufacturing

The Gypsum Industry makes the following construction products:

- Plasterboards, including moisture and fire resistant boards
- Plaster Blocks;
- Decorative Plaster;
- Building Plaster;
- Calcium sulphate based self-levelling floor;

When Gypsum (**$\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$**) is ground to powder and heated at 150° to 165° C, three-quarters of its combined water is removed producing hemi-hydrate (**$\text{CaSO}_4 \cdot 1/2\text{H}_2\text{O}$**), commonly known as the 'Plaster of Paris'. When this powder is mixed with water the

resulting paste sets hard as the water recombines to produce Gypsum again. This process can be repeated almost indefinitely, with important implications for recycling.

Plasterboard is formed by encasing a plaster paste in card and allowing it to set and then be dried to specific moisture content before being cut to size and final finishing.

The main emission of the production process is steam. CO2 is exclusively emitted from fossil fuel oxidation.

Gypsum Products Credentials

Gypsum provides a uniquely positive answer to complex environmental and societal Building challenges. Indeed,

- Gypsum rock is substitutable with FGD Gypsum, a by-product generated by coal-fire power stations during the process designed to clean sulphur from the exhaust gases;
- Gypsum products:
 - are fire protective (non combustibile and able to delay a fire's spread up to 4 hours);
 - act as a **thermal insulator when combined with insulation materials, thereby playing an important role in reducing global warming;**
 - give acoustic comfort by creating quiet zones in the house or business environment;
 - are indefinitely recyclable. They can be counted amongst the very few construction products materials where **"closed loop recycling"** is possible, i.e. where the waste is used to make the same product again and again.

History of Nap II

Due to different misinterpretations of the annex I of the Directive, the Commission published on 22 December 2005 the Communication on "Further guidance on allocation plans for the 2008 to 2012 trading period of the EU Emission Trading Scheme", which clarified, in the §6 of the annex 8, the "Combustion Installation":

"combustion installations" in the Emissions Trading Directive not only covers combustion installations that are part of the energy industry, but also combustion installations in other industry sectors, including sectors that are not explicitly listed in its Annex I."

The Recently published ETS proposal

In the current proposal, the Gypsum Industry is explicitly listed under the subheading "Mineral Industry". The **Gypsum Industry**, although a low CO₂ emitter from fuel oxidization only, agrees on its duty to contribute to the necessary reduction of greenhouse gas emissions, but it is very worried about being **explicitly listed in Annex I when other building materials activities** (for instance autoclaved aerated concrete, processed wood, calcium silicate bricks, lightweight calcium silicate boards and tiles) **are not, leading to unfair competition without improving the emissions.**

Therefore, we propose,

- For the activities emitting greenhouse gases from fossil fuels oxidization only: to include any installation with a thermal input exceeding 20MW. Gypsum activity should then be deleted from the paragraph "mineral activities"
- For the activities emitting greenhouse gases from fossil fuels oxidization and/or from other sources: to include installations either de facto or depending on their output (tonnes, m²...)

This would make Annex I much simpler, fully understandable, and would avoid unfair competition. You will find in the second documents our specific amendment for ANNEX I.