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Custom designed industrial kilns and furnaces are already sufficiently regulated – an eco-design regulation for these installations is not needed.

ERA Technology Ltd. and Bio Intelligence Service have been commissioned by the European Commission (DG Enterprise) to look into the feasibility of setting eco-design criteria for industrial and laboratory furnaces and ovens. The scope of the study is such that *all* types of furnaces and ovens are covered – even large custom designed industrial installations.

With the publication of the final report in September 2012, the undersigned industrial sectors underline that **an eco-design regulation is not needed for improving the performance (in an integrated way) of custom designed industrial kilns and furnaces** and this for the following reasons:

1. **Custom designed industrial furnaces and kilns do not fall under the scope of the Eco-Design Directive.**

Article 2.1 defines an energy-related product as any *good* that has an impact on energy consumption during use which is placed on the market and/or put into service. It also includes *parts* intended to be incorporated into energy-related products covered by this Directive. Industrial furnaces (such as tunnel kilns, roller kilns, regenerative and recuperative furnaces, electric arc furnaces and blast furnaces) which are custom made and part of whole industrial processes do not fit with the concept of a 'good' or 'part of a good'. Article 15 provides the criteria a product must meet to be covered by an implementing measure or by self-regulation. It is clear that custom built industrial furnaces do not meet the criteria mentioned under ***article 15 (2)*** (e.g. volume of sales, absence of legislation addressing environmental impact, disparity of environmental performance).

The final report quite often points out that custom designed industrial furnaces and kilns are part of complex industrial processes and, as such, **it is the whole performance of the process that must be assessed in an integrated way.** The assessment focuses on a process rather than a single product and therefore should not fall under the Eco-Design Directive.

2. Industrial furnaces and kilns are already sufficiently covered by other, more appropriate, legislation.

The undersigned sectors are all "energy intensive", meaning that energy costs represent a substantial part of their total production costs and therefore these sectors are economically prompted to rationalise their energy use. Furthermore, *Article 15 (2)(c)(i) of the Eco-Design Directive states that "the product shall present significant potential for improvement in terms of its environmental impact without entailing excessive costs, taking into account (...) the absence of other relevant Community legislation or failure of market forces to address the issue properly".* Unlike consumer goods for which eco-design criteria have successfully been developed, industrial furnaces are regulated by a range of specific EU and national/regional legislations.

Companies in our sectors face tough legislation aiming at reducing their carbon emissions. (e.g. the EU Emissions Trading Scheme (ETS) or equivalent measures aiming at reducing carbon emissions at national level). In the absence of any breakthrough technologies (such as CCS) enhancing energy efficiency at installation level is one of the levers for reducing carbon emissions. The **EU ETS** is thus an important and direct driver towards energy efficiency – and makes any further eco-design measures completely redundant.

In addition, the **Industrial Emissions Directive (IED)** lays down the conditions for the granting of permits for industrial furnaces. This Directive takes an integrated approach and foresees sector specific reference documents on Best Available Techniques (BREF documents) which allow for a case by case assessment by the permitting authority. This legislation targets the operator of the industrial furnace and regulates all relevant emissions to the environment and related energy efficiency issues, indicating appropriate techniques for increasing energy savings[1].

The **Energy Efficiency Directive (EED)** states the following and this under Article 8.4: "Member States shall ensure that enterprises that are not SMEs are subject to an energy audit carried out in an independent and cost-effective manner by qualified and/or accredited experts or implemented and supervised by independent authorities under national legislation by 5 December 2015 and at least every four years from the date of the previous energy audit."

To conclude: The implementing measures or self-regulation required by the Eco-Design directive would lead to over-regulation and would create confusion. It is clear that eco-design requirements would overlap with other pieces of legislation.

3. Industrial furnaces and kilns require a case-by-case approach.

As the final report rightly points out, **nearly all industrial furnaces and ovens are custom designed**. The concept of a representative product makes no sense as almost every plant and more specific every high temperature process is unique. Within a given sector, or even installation, the energy

[1] Reference Document on Best Available Techniques for Energy Efficiency - http://eippcb.jrc.ec.europa.eu/. Furthermore, the new Iron and Steel BREF and Glass BREF both published in March 2012 already include several processes and design options regarded as being BAT that minimise both energy consumption and CO2 emissions.

input per tonne of product differs according to the variety of products, the choice and quality of raw materials etc. These aspects are independent of the design of the furnace.

The largest impact on energy efficiency is determined by how the furnace is operated (for special product requirements) and whether it can work at full capacity. This in turn heavily depends on the economic situation which is outside the control of the builder of the furnace.

It is also worth mentioning that **a furnace or kiln is only one part of a manufacturing process and never operates in isolation within an installation**. For example, excess heat is transferred to pre-heating or cooling zones or is used for drying. However, as this falls outside the mandate of the Eco-Design Directive these aspects are disregarded in the study.

4. Conclusions

- **Custom designed industrial furnaces and kilns are <u>not</u> eligible under the criteria given in the Eco-Design Directive.**
- **Installations covering activities regulated by the EU Emissions Trading Scheme (EU ETS) and Industrial Emissions Directive (IED) should by definition not be subject to the Eco-Design Directive.**
- **It makes sense further continue approaching energy consumption and CO2 emissions in an integrated way via the BREFs.**