Premier Farnell

The Energy using Products (EuP) Directive

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EuP Directive

A Premier Farnell Company

Farnell

An Overview

The Energy using Products (EuP) Directive became law in the European Union (EU) on the 11th of August 2005. Member States must transpose this Directive into national law by 11th August 2007. Specific implementation measures will enter force from 2008/9. It promises to have an even more profound effect on industry than the RoHS Directive.

The objective of the EuP Directive is to bring about improvements in energy efficiency of energy using products throughout their lifecycle. Its focus is on the design phase since it considered that this is the determining stage affecting the resources used in a product.

The Directive does not apply to means of transport (planes, cars etc.) but, apart from this, the scope is deliberately broad, covering, in principle, any product which when in use depends on, generates, transfers or measures energy (electricity, fossil fuel or renewable).
Significantly, the Directive also covers parts that are intended to be used in energy using products.

EuP is a "Framework" Directive which defines the legal context within which "implementing measures" (i.e. Directives targeted at particular sectors) will be developed and targeted at particular product groups. Where implementing measures are introduced these will set out the requirements which must be met by certain product types before they can be put on the market in the EU. Hence failure to address EuP properly could affect a companies ability to sell.
An implementing measure will set out "eco-design" requirements "with the aim of ensuring free movement of those goods within the internal market" (i.e. the legislation shall be essentially the same in all EU States as with RoHS).
These requirements will be specific, quantified and measurable relating to a particular environmental aspect of a product - for example the amount of energy it consumes during its working life.

Annexes to the Directive define the scope of what this will mean in practice. Some of the concepts and terminology may appear foreign to a company unless design for the environment (DfE) already forms a normal part of its design processes.

Crucially, before an implementing measure can be put in place for a particular product sector (e.g. boilers) certain criteria have to be met to ensure that there really is a need and a benefit for doing so.

These criteria are as follows:
A product must

- sell more than 200,000 units per year in the EU
- have a significant environmental impact
- present significant potential for improvement

Implementing measures must not have a "significant negative impact" on

- a product's price or performance, or
- on the competitiveness of EU industry

Having taken all this into account the European Commission (EC) may decide not to introduce an implementing measure. This could happen if it believes that the industry is already progressing at a satisfactory speed (e.g. by voluntary agreements or targets to reduce energy consumption) EuP defines a process for bringing in implementing measures but the EC has already identified several candidate products that offer "…a high potential for cost effective reduction of greenhouse gases", for which implementing measures could be agreed sooner".

Candidates already being studied:

- boilers and combi-boilers (gas/oil/electric)
- water heaters (gas/oil/electric)
- Personal Computers (desktops & laptops) and computer monitors
- imaging equipment: copiers, faxes, printers, scanners, multifunctional devices…
- consumer electronics: televisions
- standby and off-mode losses of EuPs
- battery chargers and external power supplies
- office lighting
- domestic lighting
- (public) street lighting
- residential room conditioning appliances (air conditioning and ventilation)
- electric motors 1-150 kW
- water pumps (in commercial buildings, drinking water pumping, food industry, agriculture)
- circulators in buildings
- fans for ventilation (non residential buildings)
- commercial refrigerators and freezers, including chillers, display cabinets and vending machines
- domestic refrigerators and freezers
- domestic dishwashers and washing machines.
- solid fuel small combustion installations (particularly for heating)
- Laundry dryers
- Vacuum Cleaners
- Complex set top boxes
- Simple converter boxes for digital television

(there are also plans to look at industrial air compressors)

Some studies are yet to start but others are on-going or even complete. It is becoming clear that energy comsumption in use will be the primary focus of many measures. Some studies have already identified significant room for improvement compared to the best performing products on the market. This gives a strong indication that implementation measures will be forthcoming. The result of these studies will be used as input data to the formal procedure of assessment against the criteria previously mentioned.

The effect of any implementing measure will be significant since it requires the CE conformity mark to be placed on all affected products and a declaration of conformity issued stating that the product complies with the relevant provisions of the implementing measure (for example it meets the target for power consumption when in standby mode). In practical terms, this will mean that many companies will have to seriously consider introducing eco-design as an integral part of their design process. To do this effectively a number of areas need to be addressed; top level support - is the company really buying in to eco-design or just giving it lip services, capabilities - do design staff have the necessary skills or ability to develop them and apply them or is additional training or recruitment required, structures - does the design and quality system incorporate eco-design, target setting and continuous improvement within it and are these linked to EuP requirements?

This last point is crucial and not always simple to answer. Assuming that EuP measures are brought in a product sector affecting your company how do you know what these measures will address? The scope of EuP covers the whole product lifecycle - which areas of this are the most significant and likely to be subject to legislation? In some cases, consumer electronics for example, it is clear that any measures would inevitably target standby and off mode power losses specifically - so taking into account best practice in this area and benchmarking your own

designs against the best in class will give a good idea of what ground needs to be made up or where further progress will be required as targets are raised. In other cases, the production or transport phase may appear more significant than the use phase. In any event, the focus of implementing measures is likely to be strongly influenced by the findings of the EC studies to be carried going forward. Any manufacturer would be well advised to ensure it keeps abreast of developments in any individual study relevant to its products.

As far as component suppliers and distributors are concerned, EuP is going to mean a continuing pressure to remove restricted substances, and to reduce power consumption and weight. There will also be a growing demand for more comprehensive data on energy use, composition and compatibility of materials, weight, disassembly and recyclability, identification and in some cases a move towards more modular designs which can be upgraded more easily.

Since EuP requires consideration of the whole life cycle in the context of price, performance and competitiveness, it is to be hoped that this will make for better design changes that are demonstrably beneficial in reducing environmental impact in ways that are not detrimental to commercial considerations. It remains to be seen if this optimistic prospect is realised.

A firm timetable for introduction of implementing measures has not be published but it is unlikely that any will start arising until early 2008.

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