



## EUROPEAN COMMISSION

DIRECTORATE-GENERAL FOR ENERGY AND TRANSPORT

DIRECTORATE D - New and Renewable Energy Sources, Energy Efficiency & Innovation  
**Energy efficiency of products & Intelligent Energy – Europe**

Brussels, 22.09.2008

### **DRAFT SUMMARY MINUTES**

#### **Possible Eco-design Implementing Measures on Pumps under the Directive on the Eco-design of Energy-Using Products (2005/32/EC)**

#### **Seventh meeting of the Eco-design Consultation Forum (29th May 2008)**

*Centre Albert Borschette (CCAB), Room OA, Rue Froissart 36, 1049 Brussels*

**EC Participants:** André BRISAER (Chairman), Ismo GRÖNROOS-SAIKKALA (TREN/D3), Villo LELKES (TREN/D3), Kerstin LICHTENVORT (ENTR/B1)

#### **Introduction**

The Chairman welcomed the group and introduced Mr. Hugh Falkner who was responsible for the technical study.

The Commission Staff Working Document (CSWD) on possible Eco-design requirements for pumps was presented (see presentation circulated together with these draft minutes). The CSWD had been made available four weeks prior to the meeting on [http://ec.europa.eu/energy/demand/legislation/eco\\_design\\_en.htm#consultation\\_forum](http://ec.europa.eu/energy/demand/legislation/eco_design_en.htm#consultation_forum).

The Commission explained the types of pumps covered by the envisaged measure. Pumps covered by the CSWD are run by motors covered by the motor sub-study, except multistage submersible pumps. Integrated pump/motor products must meet both sets of requirements, those on motors and on pumps. Transmission is not considered as pumps are normally directly attached to the motor and not like fans where belts and chains may be used. Wastewater pumps and pumps with special features are out of scope.

The requirement levels are based on the Lot 11 preparatory study keeping in mind the Article 15 of the Directive. With regard to the benchmark, the best performing product and technology can be identified based on the environmental aspects under consideration, but when determining the most cost-efficient pump it has to be done in the context of each application.

It would have been possible to add extra tiers into this measure but, based on comments received, but the technical study saw a review in the light of technological developments as most appropriate. It is proposed to review the measure after 5 years.

## **Europump Presentation on 'House of Efficiency'**

Europump propose to concentrate not just on the point of best efficiency but also on part load and overload conditions. With the 'House of Efficiency' approach, the level of efficiency of a pump is defined by measuring it on three points (part load, best efficiency point and overload). This ensures more reliable and meaningful efficiency information than the definition of the best efficiency point only.

### **Stakeholder discussion:**

Europump gave details of the cut-off percentages. If worst performing pumps are cut off from the market, development costs can be expected when a manufacturer does not produce pumps above the cut-off level. These include the development of new types of pumps, the increased production costs of the same types and redesigning all production lines. Europump suggest an average cost to redevelop a pump model type up to be about €200,000.

ECOS (representing environmental NGO's) queried the figure as every pump model will not be redesigned from scratch and production and design are done in entire pump families. Europump agreed that investment differs and they have included this element in the estimate.

The Netherlands wondered if these costs were taken into account in the life cycle cost analysis as the correct way of proceeding is to add the costs to the price of the product. The physical, non-monetary barriers for efficiency improvement should be the most important issues to be looked at, but these can also be related back to the life cycle cost analysis and products can be marked up to get these costs back.

ECOS supported the point that least life cycle cost should be kept as the major criteria for setting requirement levels as required by Annex II of the Directive. It is necessary to expand production capacity in order to achieve more ambitious requirements with introductory dates carefully considered.

Europump noted that the problem for industry is that the investment comes first before the costs can be recouped, and that there is a wide range of applications to be considered. Ultimately, the most efficient approach is to use the pump which fits best to the application.

A discussion followed on possibly weighting or limiting the **scope** of pump types, which would give the possibility for more ambitious requirements. Splitting the scope or limiting it slightly would mean that industry could accept higher cut-off points faster and, according to ECOS, the cut-off level could go to 70 - 80% rather than the current target of 40%, as this would still be below least life cost level.

Europump was concerned that splitting the scope could lead to manufacturers looking for a way out. It is in the interests of industry to have a measure applicable to all pump types which encourages the improvement of all products. Also, the scope had been discussed carefully during the preparatory study and the current scope ensures that manufacturers cannot simply produce bigger pumps (over-sizing) to avoid meeting requirements. Europump clarified that the cut-off is 40% of the type of pumps, and does not refer to energy consumption as such.

The Chairman summarised that there are two options – to include all products in the scope or just the most sold ones. Considering that sales figures will not be made available and that the LLCC supports the current approach, then it is best to avoid narrowing the scope.

ECOS agreed with the Chairman's conclusion but would like to see higher cut-off rates. He also suggested possibly limiting the scope by type of application, type of pump or pump size by looking at the pumps with the most volume or energy efficiency potential.

The Chairman asked if **market surveillance** authorities would be able check, without excessive cost, the proposed efficiency levels, and whether the SMEs could afford conformity assessment. Europump assured that efficiency can be easily measured; there is just a calculation factor to be implemented based on statistical data. Europump would like to see at least a CE assessment mark and a test assessment for series pumps. As soon as a standard is available, testing will be easy.

ECOS asked about the reliability and transparency of the Europump data. Europump clarified that the only way to get companies to share the data was to send it to an independent research institute that would publish the results anonymously. The methodology and the way companies deliver the data is transparent but it means that only the results and not the data are available. However, the data could be made available for viewing at Darmstadt University (where the work was carried out).

Belgium was concerned about implementation. If 1000 models of pumps will be off the market of a total of some 2000 models of pumps in a few years, how should market surveillance authorities check that they have been removed? Would it be up to the European companies to provide authorities with this information? And what about the products from outside of Europe which have a very different starting point for market surveillance?

The Chairman clarified the role of the CE mark. After the date of entering into effect of the measure, pumps that do not comply with the requirements are not allowed to bear the CE mark anymore and may not be put on the market.

The Chairman asked the floor for suggestions of any additional **information requirements** that might be necessary.

Germany would like to see the efficiency of the pump and the maximum head stated on the nameplate. As the market is mostly professional, there is no need for other information.

Europump commented that this information is already part of the standard marketing information but industry can provide any needed information to aid choice of the consumer.

ECOS would like to see information included about the use of electronic controls and how the pump efficiency is related to the benchmark.

Germany commented that maybe there should also be an information requirement to state the **benchmark** efficiency. This would make it easier for market surveillance to compare against the graph on slide 16 of Commission's presentation.

The Chairman asked stakeholders' views on the 80% cut-off level for the benchmark as suggested in the CSWD.

Europump commented that 80% would be a tough target but is acceptable and cautioned against pulling the customer away from the best pump for the particular application. Mr. Falkner added that the method is sufficiently transparent as the graph in the presentation would give a minimum efficiency level for each type of pump at every duty within the range considered. Concerning the selection of the best pump for the application, the purchaser should ideally consider the efficiency of a selected pump at its actual calculated working point, not select it on the basis of peak efficiency.

ECOS described the cut-off system as a frozen image of market surveillance from last year. However, every year appliances on the market change, leading to a different image of the situation. If an energy efficiency index was developed with every pump with its relative efficiency compared to the maximum on the graph, it would give a better result. The output of the graph could be made more transparent to be easily added to a piece of legislation. Europump will work on making this at the request of the Chairman.

ECOS stresses the need for more ambitious requirements. The current levels were set last year and the market will change in the next 8 years. ECOS wants the 2015 requirements to be set earlier and requires an assessment of the market before the new targets are set in 2015. The Chairman agreed that the market situation will be different in 2015 but noted that we need the situation from last year as a starting point.

Europump asked if the Commission might regulate controlled (**variable speed drive**) pumps in the future as considerable savings could be made there. Commission explained that in principle pumps with VSDs will easily meet the proposed requirements in part load. In the meantime, an information requirement for pumps without VSDs should be considered under the Annex I.2 of the EuP Directive explaining pumps without VSD are less efficient in given part load conditions. The Commission would welcome any proposals that industry has on this issue.

Europump would like to have an EN standard on motors and pumps with VSDs. Good pumps on the market are a must but the potential of VSDs should be addressed. The Chairman stated that the Commission would be happy to help industry and to put a mandate to the standardisation bodies to facilitate faster development of a standard.

ECOS and the UK supported further work on VSDs.

*End of summary minutes*