



**MINUTES OF THE MEETING OF THE ECO-DESIGN CONSULTATION FORUM
HELD ON 18 DECEMBER 2007**

Subject: Ecodesign of EuPs Consultation Forum
Place: Charlemagne building, Brussels
Chairman: André BRISAER (TREN/D3)
EC Participants: Martin EIFEL (ENTR/I4), Andras TOTH, Matthew KESTNER, Martin
ELSBERGER, Gergana MILADINOVA & Ismo GRÖNROOS-SAIKKALA
(TREN/D3), Ludmila MAJLATHOVA (ENV/C5)

1. Welcome and introduction

The **CHAIRMAN** welcomes the participants and introduces the agenda and the participants from the Commission.

2. Adoption of the agenda

The agenda is accepted without changes.

3. Adoption of the minutes of the 2nd Consultation Forum meeting on 19 October 2007

The Chairman notes that only Orgalime submitted comments to the draft minutes circulated. The comments were sent a few days ahead of this meeting and the Commission services had no time to look at. It is agreed that a new version with track changes will be circulated taking into account Orgalime's comments. If within one week from the reception of the revised version there are no further comments the revised minutes will be deemed to be adopted.

4. Working document on possible ecodesign requirements for fluorescent lighting and for office lighting products

Mr Toth explains that the intention is to put in the coming measure basic requirements for the luminaires already now, and leave more time for the discussion of detailed luminaire efficacy rating / light output ratio requirements as they are very complex and important elements for their analysis are only going to be provided in the second part of the domestic lighting study. Following a remark by **IT**, the **Chairman** explained that the same committee could deal with both ecodesign and energy labelling, for consistency and complementarities between ecodesign requirements and labelling.

Consultation Forum could identify labelling as one of the policy option. Following the question of **DK** whether installation requirements could lead to a revision of lighting standard EN 12464, **CELMA** (Federation of National Manufacturers Associations for Luminaires and Electrotechnical Components for Luminaires) replied that CEN has adopted plans to revise the standard so as to integrate installation level requirements.

1. How many implementing measures on lighting and what scope?

Mr Toth explains that it is likely that the planned two tertiary sector measures could be merged into one, simply adding up the content of the existing proposals. CELMA's plea for application independence is already answered by the suggestions presented in the working documents (Annex I of office lighting, street lighting document already has horizontal requirements). In a merged measure voluntary indication of suitability according to application would still be handled as separate annexes. Thus implementing measures will be on products, but the voluntary indication for suitability would open the way for further legislation outside the ecodesign scope. **CELMA** notes that best way forward is to have complementary legislation. **Environmental NGOs** stress the need to keep the application oriented approach in parallel to technology requirements. **ELC** (European Lamp Companies' Federation): the number of measures on lighting is currently an open issue, and should be decided based on which approach is easiest for stakeholders to understand, comply with and is fastest to implement.

2. Application vs. technology approach

Covered under point 1.

3. Form of the implementing measure

Mr Toth: supportive comments received for regulation. **IT** supported the principle of using regulations for products requirements, but for installation/systems requirements a directive would be more appropriate. **Environmental NGOs** support the regulation because it is simpler for later reviews.

4. Voluntary indication of suitability and installation requirements

Mr Toth: change in the approach compared to working document on street lighting in June 2007 (Instead of mandatory, voluntary indication for the manufacturer if relevant for installation-level local/national and/or public procurement provisions).

5. Repeal of directive 2000/55/EC (existing implementing measure on fluorescent ballasts)

CELMA is opposed to the repeal of the 2000/55/EC directive. It is clarified that by "repeal" it is not meant to cancel its requirements, but to embed its full (but possibly amended) content into the forthcoming ecodesign measure covering all fluorescent lighting products. This would also solve the problem of the legal form, as 2000/55/EC is currently a directive and the intended form of the implementing measure would be a regulation.

6. Standards and measurement methods

Mr Toth accepted that the working document is not specific enough on definitions and measurements. Either references or the methods themselves will be introduced into the draft measure.

7. Standby and off-mode power limits

Mr Toth: this topic relates also to the 19 October 2007 Forum meeting. Ballasts and luminaires should both have requirements on standby values. The functionality of presence detectors and other sensors that dim them or switch them off is not considered as standby under the terms of the standby implementing measure. Therefore the current working document on fluorescent lighting can propose limit values for their "standby" status. **CELMA** supports that ballasts are removed from a horizontal standby implementing measure and agree with the values proposed. However, dimmable ballasts can serve both as ballasts for the lamps and power supplies to the sensors in the lighting network. It should be clarified that the standby losses are for the ballast function only and not for the power supply function.

8. Product information (location, content, labelling)

Mr Toth: several options for location: product itself, packaging, accompanying instructions, website/catalogue, technical file available at the manufacturer. The latter two are obvious choices, the question remains about the first three. **AT:** in a pragmatic approach, we should include all information sources used by buyers, catalogues etc. It is less important to have the information on the packaging. **NL:** the proposed information requirements and the discussion on their location should be in line with Article 14 of the Ecodesign Directive (the content can be prescribed but not the form). **Mr Toth:** part 2 of Annex I should be considered too – out of the 4 categories of product information listed there, only one is covered by Article 14, information for consumers on how to use and dispose of the product in a sustainable way. For the other categories, the form of the information can also be specified. **Environmental NGOs:** if the requirements are not application based, the information should be available on the package, as the application and therefore the end-user is not known. Lamps are not only bought by professionals. A++ should not be used as new classes for the energy label. Need for a clear mark on mercury content, important for the waste phase. **Chairman:** We need to know what message to convey and to whom, and only then we can decide where it should be located. Users, not only consumers should be targeted. **IT** noted that we have to take into account Article 7.b of 92/75/EEC – if likely to confuse, the display of other marking is prohibited. **ELC:** the question is relevant for the market surveillance discussion too – we should make it easy for authorities to do their job. **CELMA:** LOR value is already voluntarily indicated by CELMA members, for the benefit of users for whom CE marking (showing compliance with the potential minimum LOR requirement) may not be sufficient. Requirement on display of the Energy efficiency index on the ballasts themselves is a good idea, reputable manufacturers already do it. **NL:** watertight requirements and information on the products themselves should be the rule for proper enforcement, if necessary exceptions can be granted on information location.

Mr Toth: revised lamp energy label will be proposed but not in spring 2008 – limits are set out already now for LFLs and CFLni, however the class names should follow the forthcoming 92/75/EEC revision (after extension of the scope beyond household appliances). **DE:** for recycling it should be indicated on the label if mercury is present in the product. **CHAIRMAN:** mercury indication would confuse the consumers and would jeopardize the positive message on lamp energy efficiency, so in the end they would buy the cheaper lamp. Of course the indication is useful in the professional context.

9. Role of benchmarks

Mr Toth: the benchmarks indicate what is the best available technology on the market at the time of carrying out the preparatory study. Benchmarks could become the requirement at term. In some cases the working document suggests that the requirements are at the level of the benchmark: wording should make this clear in the implementing measure. LFLs are a mature technology, and

for some parameters there is no differentiation on the market that would allow the setting of benchmarks.

10. Market surveillance

Mr Toth: of does not depend only on the ecodesign process. The Commission services working on the implementing measure are aware that the effectiveness of eco-design measures also depends on market surveillance by the Member States; the revised New Approach Regulation is addressing the issue. **UK:** the UK Department for Environment, Food and Rural Affairs (DEFRA) draws the attention to a conference in Paris on 28-29 February 2008 co-organised with the International Energy Agency (www.iea.org) entitled “Meeting Energy Efficiency Goals: Enhancing Compliance, Monitoring and Evaluation”. **CELMA:** in the professional market, products produced on order for particular installations “disappear” immediately in the market as they are installed as soon as shipped to the buyer. This makes product-based market surveillance typically occurring in shops difficult. The proposed lighting design legislation would be a solution, because “market surveillance” on products would be exercised by the lighting designers and installers eager to comply with the installation level requirements. **Environmental NGOs:** This could entail new levels of bureaucracy – better to have EuP requirements which are then interconnected with energy efficiency requirements on buildings. **Mr Toth:** Environmental NGOs had noted in their comments that the complexity of some requirements could be a threat to the proper functioning of market surveillance. **ELC:** complexity is justified, because it is important to ensure that products meet all requirements, not just requirements on one parameter (e.g. energy efficiency). It is easy to optimise the product on one parameter if the others are neglected – simplistic requirements could be a loophole for bad quality products entering the market.

11. Monitoring and revision of the measure

DE: support the proposal from Environmental NGOs to require both manufacturers and importers to report on the environmental performance of the products placed on the market into a central database through which the effectiveness of the implementing measures could be constantly monitored. **Chairman:** the Commission services are currently examining ways to identify dynamic benchmarks for rapidly improving products in order to pull the market. The setting of such advanced benchmarks should be a continuous and dynamic process which cannot work if linked to some formal administrative/legislative process. Advanced benchmarks could be an indicator of technological evolution and serve as an input to trigger the revision of implementing measures (also for labelling). It is proposed to discuss such possibilities later. **Environmental NGOs:** the benchmark is for identifying the best products, where the Environmental NGOs proposal is to set out a legal requirement for provision of data to increase knowledge about all existing products through a database. .

12. Way to set exemptions

Mr Toth: exemptions should be based on technical parameters, not on claimed application areas, in order to make market surveillance straightforward and avoid creating legal loopholes. This is in line with the objective of covering all general lighting technologies under the planned implementing measures. **ELC:** ready to cooperate to come up with technical parameter-based exemptions. **Mr Toth:** Exemptions based on e.g. lamp diameter are meant to ensure that the scope remains restricted to general lighting so that the measure does not affect lighting technologies in applications where lighting is used e.g. for decorative purposes. **Environmental NGOs:** why restrict the scope of luminaire requirements to luminaires for lamps with more than 1000 lumen output? **VITO and CELMA:** the purpose was to limit the scope to luminaires used in professional lighting, which normally do not use lamps under 1000 lumen output. **CELMA:** for those kinds of luminaires it is

anyway difficult to set requirements and the saving potential (as far as the optical efficiency of the luminaires is concerned) is marginal. **Mr Toth:** agrees that Annex I was supposed to be application-independent and that there could be scope for requirements on luminaires for fluorescent lamps under 1000 lumen output. The requirements should be reviewed to take this into account.

Detailed discussion

The participants are asked to indicate which are the parts of the working document they would like to discuss in the remainder of the meeting.

1.2. Requirements on lamp efficacy for fluorescent lamps without integrated ballast

DE: will submit detailed written comments later. It is suggested to take up a service oriented view, to consider the luminous flux versus wattage and to define efficiency requirements by kilowatthours per kilolumenhours instead of lumen/watts versus watts. Instead of the many tables categorised by wattage and giving lm/W values for different lamp types, a single common equation should be preferred both for lamps and ballasts. In the current proposal lamps with the same performance but different technology could have different target values. **ELC:** interested to see DE proposal, as they have not managed to come up with a simple solution so far.

1.4. Requirement on mercury in fluorescent lamps without integrated ballast

ELC: mercury content of lamps is tackled in the RoHS directive (2002/95/EC). **DK:** agree with the recommendation in the working document to tackle mercury limits under RoHS. **DK, Environmental NGOs:** would like to clarify what is the legal value of the recommendation to tackle mercury limits under RoHS. **Chairman:** Once we know what the limits should be, it is a formal question where they will be set, provided legal consistency is ensured. A practical arrangement could be that a provision in the implementing measure sets out the values, with the clause that they will be applicable unless superseded by the subsequent revision of the RoHS annex. **IT:** this is a typical example of a product directive overlapping with a horizontal directive. Mercury content should be clearly tackled under RoHS and nowhere else. The same holds for other potentially overlapping aspects. **Chairman:** Leaving it to RoHS is also a good option, however it would be better if we did not have to wait and hope that the same conclusion is reached in another process. DG TREN and ENTR will discuss with ENV how to solve this.

DK, Environmental NGOs: agree with lowering the limits on mercury content. **ELC:** mercury content is part of a larger picture, as other aspects of the product are affected (efficacy, lifetime etc.). Low limits such as 2mg can be set, however we have to consider the consequences on other aspects. Also some lamp types would be phased out of the market (e.g. T9 circle lamps). **ECEEE:** it could be envisaged to make trade-offs among the different lamp parameters (e.g. for lower mercury content, shorter lifetime would be accepted, and vice versa).

Environmental NGOs: in the spirit of the EU's mercury strategy COM(2005)20, would like the Commission to set requirements on the production phase of the lamps. No "dripping method" to be used in producing the lamps such as in many third countries, because half of the mercury is wasted. It would be good to clarify also whether this method is in use in the EU currently. The preparatory study contained no data on this. **Chairman:** The Ecodesign directive deals with product design, it does not address industrial processes, cf. Annex I Part 1 "In so far as they relate to product design, significant environmental aspects are identified with reference to the following phases of the life cycle of the product". Requirements on how raw materials are extracted or on how certain materials are inserted in the product could not be set also because of the difficulty of EU surveillance on the territory of third countries. **Mr Toth:** the horizontal methodology used in the preparatory study makes assumptions on the production phase impact of the mercury content of the product. Those

assumptions are averages based on typical production processes, they were used in the life cycle impact modelling of fluorescent lamps in the preparatory study.

Environmental NGOs: unclear what the Commission's intentions are with the leaching mercury requirement. With the proposed test procedure it is common practice to mask the presence of leaching mercury by hiding it in compounds.

I.5. Product information requirements for ballasts used with fluorescent lamps without integrated ballast

I.6. Requirements on the efficiency of ballasts used with fluorescent lamps without integrated ballast

Mr Toth: The tables in Directive 2000/55/EC and in CELMA's ballast guides setting out efficiency limits on ballasts used with the different lamp types were merged into a single table, independent from lamp type and containing also limit values for the different classes according to the energy efficiency index (EEI). It is proposed to complement CELMA's initial classes with new benchmark classes, to rename all the classes so as to avoid confusion, and to raise the minimum requirement for the ballasts used with low-wattage lamps as extremely low efficiencies were detected there.

CELMA: electronic ballasts are the future for office lighting, however in order to prepare for the banning of class C magnetic ballasts in 2005, a new generation of magnetic ballasts was developed and new production machinery and tools still have a long lifetime ahead. The timing to further raising the limits should allow for some returns on the investments to be made. Magnetic ballast production is local business in Europe whereas most electronic ballasts come from third countries. CELMA welcome the intention to base the energy efficiency index on real efficiency, not the supply power, because lamp power then does not affect the measurement result, there will be less variation. However, the measurement method still needs to be developed before the new system can be accepted.¹ They are opposed to renaming the EEI classes, which have been used since end of last decade, and already well known, it will create a lot of confusion if changed. However, if new benchmark classes are added without changing the existing ones, they can accept it. They did not put forward a suggestion on how to name the new classes (knowing that the existing ones are A1 A2 A3 B1 B2). **AT:** would favour a renaming to have a normal A-G label. **CECED:** suggest to use their proposal for a dynamically evolving labelling system with an open scale using numbers starting at 1 for the worst products, in order to avoid difficult rescaling.

I.7-8-9 Luminaire requirements

Mr Toth: The proposed categorisation of luminaires according to light distribution classes and the Light Output Ratio (LOR) / Luminaire Efficacy Rating (LER) requirements are complex and very new issues. Also, some of the aspects can only be addressed once the results of the second part of the domestic lighting study are known, so that a comparative analysis of luminaire and reflector lamp optical efficiency can show how to establish a consistent categorisation and set of requirements. It is therefore proposed to postpone the debate on the parts of the working document on luminaire classification and LOR/LER requirements to the Consultation Forum where the working document following up to the second part of the domestic lighting study will be discussed. Accordingly, only the simpler luminaire requirements would remain in the draft implementing measure on fluorescent and office lighting (certain information requirements such as the CEN flux code, and design requirements). **CELMA:** They will have to consult their member organisations on the changes proposed in the fluorescent and office lighting working document. SMEs do not have the necessary high tech equipment to measure the CEN flux code values, it would be a disproportionate burden on them to provide that information. We need a simple tool on the market,

¹ CELMA indicated after the Forum meeting that they reconsidered this issue and came to a different conclusion. Please refer to their paper among the comments subsequent to the Consultation Forum.

such as the LOR value which describes well the luminaire's optical efficiency. LER is a complex formula taking into account LOR but also the lamp and ballast efficiency. LER would make it possible to hide bad performing products into good ones: a very bad lamp could still go into a good luminaire, or vice versa. **Environmental NGOs:** support the detailed requirement on product information, as lighting designers say it would be very useful in optimising the lighting installations they are planning. **AT:** LER values are already used in Switzerland, not as minimum requirements, but for benchmarking. **CELMA:** the Swiss solution is application-based.

1.10. Requirement on waste of fluorescent lamps without integrated ballast, and luminaires and ballasts for such lamps

Mr Toth: though the WEEE directive (2002/96/EC) contains some provisions on product design, product design legislation should be as much as possible under the Ecodesign Directive, which is based on Article 95 of the Treaty and therefore more suited for product legislation harmonised across Europe for their free movement. The proposed requirement comes in addition to the WEEE provision on product design. It is a generic requirement and the details of its implementation would be worked out by the European Standardisation Organisations (ESOs). In the written comments suggestions were made to have more specific requirements. **Environmental NGOs:** Why not a specific requirement on product lifetime and resistance to frequent switching, in the spirit of waste prevention, and as it is already done under the ecolabel on light bulbs? **Mr Toth:** No requirement seemed necessary as according to the study already all LFLs on the market are performing well from this point of view (mature technology). **ELC:** Only the products of EU-based companies are certain to perform well, it is not always the case of all imported products. Also, the required increased efficiency could be achieved at the expense of product lifetime, so to be safe, a specific requirement would make sense after all. **Mr Toth:** if that is the case, requirements on product life time should also be introduced.

ELC: would like to see clarity on whether the proposed additional waste requirements would come on top of the WEEE requirements, and whether the Member States would also be required to have additional requirements under Ecodesign. **Mr Eifel:** WEEE, RoHS and the Waste Framework Directive already address the waste of products horizontally. However, it is important to have requirements also in product design. To avoid divergent national legislations fragmenting the market, it would be better to use a harmonising Article 95 directive such as Ecodesign.

Environmental NGOs: There has been very bad experience with applying essential requirements / standardisation to waste legislation, notably with the packaging directive, where it did not result in any reduction in packaging waste. **Mr Eifel:** If stakeholders or Member States are unhappy with a particular harmonised standard, procedures such as the safeguard clause are foreseen, and ultimately the Commission (assisted by a committee of Member States) may decide to withdraw the reference to the standard as suitable for presumption of conformity. There have been examples before. When standards work, they are a good dynamic way for acting, also affecting the world level as ESOs interact with international standardisation organisations. Products are for the world market and it is best to ensure consistency for a free movement of goods. Also, when we will have to deal with products where many environmental aspects come into picture, it is best to leave it to standardisation to work out how the different requirements should interact with each other in order to optimise the environmental performance of the product. **CELMA:** agrees with attention given to international dimension, currently IEC standard is under development for ballasts, largely based on current CELMA classification. The common global requirement will ensure that products will not have to be manufactured differently for different markets.

NL: Generic requirements should only be used for non-crucial parameters where we have only vague ideas, but even in that case we should not leave it to standardisation bodies to determine the requirements. The discussion on concrete requirements should take place linked to the implementing measures, and not in the European Standardisation Organisations. **Chairman:**

reminds that Recital 30 of the Ecodesign directive provides that "the purpose of harmonised standards should not be to fix limits for environmental aspects".

5. Presentation of results of the preparatory studies on boilers and water heaters
(for information)

The contractors (**VHK**) gave a presentation on the results of the preparatory studies on Lot 1 (boilers) and lot 2 (Water Heaters). They explained that

- a. The scope of the Boilers study was essentially all 'hydronic' (wet) heating systems using gas oil or electricity (except CHP, district heating). This accounted for around 80% of E+U heating.
- b. The energy consumption of Boilers and Water Heaters is very large, accounting for almost a quarter of EU energy demand, on a par with road transport.

That the analysis

- c. Covered all types of building and that industrial and 'semi public' buildings (Schools, sport, health, admin, defence, cultural, ecclesiastical etc) covered almost 40% of demand. So not just residential and commercial buildings.
- d. Was based on a 'real life' assessment of the energy consumption of boilers and water heaters installed in systems.
- e. Used a model to calculate energy consumption based on EN standards developed for the EPBD

That

- f. The proposed minimum requirements based on the LLCC level was an overall efficiency (in primary energy) of 76% for most boiler packages, 96% for the largest (non residential) boilers, and ranging from 24-92% depending on size for water heaters.
- g. (On the realistic scenario) The savings potential is very large with CO² savings in 2020 reaching 125 Million tonnes (Boilers) and 60 Million tonnes (Water heaters). With an expenditure saving (net of investment costs) in 2020 reaching 29 Billion € and 15 Billion €.
- h. These savings could best be achieved with some 'lateral measures'. For example support for chimney renovation and coordinated replacement particularly in buildings with common chimneys.

He also explained in detail how his recommendation would work.

DE (UBA) said that he could only give UBA's provisional view as DE had not yet taken a position. However, their initial reaction was positive. In particular :

1. They supported the 'system approach' in the Eco boiler and Eco hot water studies
2. The complexity of the model was less important as long as the final information to the customer was straightforward
3. That there should be a single labelling scheme, with one scale for all heating systems.

4. The full scheme was transparent, and could rate a wide range of different technical combinations.

However, the proposed 20ppm NO_x limit was too ambitious, while the 400ppm CO limit was too lenient, (30ppm was the state of the art, and would be a more appropriate limit). Moreover, the limit for NO_x should distinguish between the different fuels.

IT (ENEA) also warned that she made only preliminary comments. She suggested that Italy could accept only a gradual phase out of technologies. They would prefer to see separate labelling schemes for different technologies, and suggested that at least some of the burden of promoting more efficient heating and water heating technologies should be taken by the EPBD.

DK, had some concerns over the 'system' approach. He felt that it might be complicated for installers, who would not have the qualifications to evaluate systems, many of which were sold over the internet. He also felt that the model would need further validation.

NL (SenterNovem), also mentioned that his comments were preliminary, but felt that NL (like DE) would support the 'technology independent approach', which could drive innovation. If we do not ban inefficient technologies, progress would be slow.

On the other hand he did not like the A+++ on the label. The very large consumer savings justified extra care that the claimed efficiencies were accurate, so that in this case 3rd party testing (type approval) would be justified.

BE appreciated the work that had gone into the studies. He felt that

1. Implementing measures should focus on the replacement market.
2. Limits for CO and NO_x should be combined.
3. The implementing measures needed to be robust, and
4. The model should if possible be simplified.

In response to these comments and questions **VHK** reiterated that the rating would be applied to what was actually supplied in the 'CE marked package' not just what the manufacturer suggested should be added to make an efficient system.

They explained that the suggested NO_x limit of 20ppm (40ppm for product packages using renewables) was after allowance had been made for the Nitrogen in the fuel.(so if tested using standard heating oil the limit might be 23 ppm higher). In this context it was less strict than limits in California. The suggested CO limit was more lenient because (as was shown in the methodology study) the environmental impact of CO in the atmosphere, was around 25 times less than that of NO_x, and there was a technical trade off between CO and NO_x limits.

The Model was still work in progress, but the urgency of introducing measures meant it was not possible to spend 2 to 3 years testing and validating the model. In any case it was based on the EPBD EN standards that represented current 'state of the art' in making these estimates. While it would be nice if it could be simplified, the scope for this was limited, if it was to accommodate as many as possible different combinations, and if there was to be a clear link between the model, and EPBD standards. In any case VHK would welcome constructive suggestions for simplification, or other improvements.

Concerning the suggested A+++ to G scale for labelling; they explained that in almost all cases an 'A' labelled package to meet a customer's need could almost always be available (after a reasonable transition) and would be cost effective. Going beyond this would involve the use of renewables might present technical difficulties and (except for large boilers) might not be cost effective. Thus the A+ to A+++ ratings represented packages that might be hard to find in an appropriate configuration for a particular customer, and might not represent value for money.

Marcogaz, supported the objective of the studies, but felt that:

1. Design of the overall installation was important (for example whether a boiler was installed inside or outside the heated space).
2. There should be a differentiation between new and replacement installations
3. The label should be simple
4. That the labelling system had a strong effect on competition but that it should be aware of different technologies
5. The model and the EPBD (and its standards) should be kept consistent.
6. The NO_x limit was too low, and the CO limit too high.

CECED thanked VHK for the outstanding work that had gone into the study. He felt that we would need a 'checkpoint' in 2012 before we can expect the introduction of solar and heat pump water heating systems from 2012. He regretted that the study had only a limited sensitivity analysis. He felt that the compulsory introduction of heat pumps for most electric water heaters by 2011 or 2012 was not justified. He would have liked to present an alternative scenario, elaborated in a paper by the University of Palermo, and some work on the industry analysis from Mr. W. Mebane. But understood there was no time. However, these studies, and presentation were available. The estimated outcome in 2020 would be CO₂ emission from water heaters of 183 million tonnes, as opposed to 174 M tonnes under the VHK realistic scenario, and 197 M tonnes under the latter's 'slow' scenario.

Finally he suggested that 3rd party testing was not necessary at least for electrical water heaters.

EPAT (heat pump manufacturers) felt that VHK study was very good, that there should be rating of combined systems, but that 3rd party testing was not necessary.

The **EHPA** felt that the study was very comprehensive. In respect of the recommendations they suggested that

1. Labelling the whole range of products was certainly not confusing, rather it was transparent, and what the customer needed.
2. The system approach was the way forward, and
3. There was a need to educate installers in how to correctly install heat pumps.

Euroace (representing in particular controls manufacturers) agreed that good quality controls were perhaps the most important element in an efficient heating system. However, they were concerned that by including the controls in the 'CE marked package' that all controls would in future be supplied by boiler manufacturers. This could mean that controls manufacturers 'route to market' would be closed and that they would be reduced to OEM suppliers to boiler manufacturers. Apart

from other considerations, this could leave them short of investment funds to develop new even better controls.

EHI had been involved with the study from the start. They believed that the ambitious targets set by the council could be achieved. They agreed with the 'system' approach dealing with all components of the heating system. However, they were concerned to ensure that new high efficiency products should be affordable to all EU citizens.

As shifting from electricity to gas or vice versa could be difficult, and because various Member states had different fuel mix policies, EHI felt that separate gas and electric labels would make sense.

EHI also felt that the 'calculation model' of itself was not too complex, but that the many different load profiles (both for heating and water heating) were overly complex, and that the public would not know which was the correct profile to choose.

They supported feasible MEPS targets and emissions limits. They were concerned that the EPBD was leading to many different requirements in differing regions, and so supported a harmonized approach for example through Ecodesign requirements.

Finally they had an alternative scenario, which they claim would give the same results as the VHK 'realistic' scenario.

The **International Network for Sustainable Energy** was happy to see the study and that there was a large potential for savings. However, they were concerned that the level of ambition could be higher, and that the overall efficiency requirements should be approaching 100%.

BEMA(UK) thanked VHK for a very interesting presentation. He was however, concerned that an installer might buy a very efficient (A+++) package, and then install it in the wrong building so that the actual performance was low (class C). He was also concerned that controls manufacturers would be forced to sell to boiler manufacturers rather than to the final consumer, and that this might affect their profitability and their ability to finance development of controls.

In Reply **VHK** explained that:

- i. It was already clear that, the recommended measures if adopted would encourage boiler manufacturers to include controls and other system components in the 'boiler package'. Where such controls were not already generally sold in such packages (for example in the UK and Ireland) this would probably have a negative effect on the margins of control manufacturers. On the other hand measures to encourage the retrofit of improved controls (which would probably make sense) would give new opportunities to controls manufacturers.
- j. The model was based on EN standards developed for the EPBD, and used the same data. While further validation and research would be helpful, the model represented the current 'state of the art' and was already far better than the basing policy on the simple results of static tests.
- k. It was up to manufacturers to decide for which load profile (so for what size) they would design their product.
- l. For conventional boilers an overall efficiency of 80% was already very good, as in hydronic systems there were inevitable distribution and stratification losses.
- m. Over sizing is important, but there was a limit to what 'single market' Ecodesign requirements can do in this respect.

- n. (As demonstrated by the attached slide) the introduction of separate labels for different fuels or technologies, would lead to a proliferation of labels, and would confuse the customer.
- o. The recommendations considered the retrofit market, which was why there were 7 classes (A to G) devoted to 'conventional' products.
- p. While renewable solutions might not be applicable in some situations, it would be very rare that good quality controls could not be fitted with a replacement boiler (or water heater).
- q. Customers would already be aware of whether their current system, and the proposed replacement used electricity gas, or oil. But such information could perhaps be added on a label.
- r. Any loss of profit to the control manufacturers from controls being sold together with boilers, could be balanced by a good certification scheme, and other measures to encourage retrofit of controls. But that the efficiency rating should reflect the real life efficiency of a boiler supplied with controls.

EUBAC then intervened to say that their concern was that the present proposal would favour boiler manufacturers in their competition with controls manufacturers.

- s. Third party testing was proposed to ensure a level playing field between different fuels and technologies. In addition unlike safety (where in general products either passed or failed) for energy consumption there was a quantitative limit, so tolerances were important, and variations in these between technologies, or fuels would not be acceptable. Moreover the extra cost would be small representing between 0.1 and 0.2% of the product price.
- t. The manufacturers of ESWH (Electric Storage Water Heaters) would probably have to make larger investments than other sectors, but that VHK as the consultant would not like to comment on what this might imply for the timing of the introduction of measures (which was for more 'political' discussions).
- u. The model had been developed in 13 months

CECED intervened that his point was that to develop a sensitivity analysis in the model to the same level of detail as the 'standard case' would take 36 months, and that he regretted that the sensitivity analysis was only 3 pages in a long report.

- v. **VHK** thanked Marcogaz for their support. There was a limit to what an Ecodesign measure could do to stop people abusing products. Measures for example to ensure correct sizing, or to take account of unusual 'off standard' installations, might need to be dealt with through the EPBD.

The Chairman, closing this item, thanked in particular VHK for their hard work. He asked CECED and EHI to provide details of their alternative scenarios so that these could be distributed to all participants. The Commission would have to study them in detail, to consider what they would deliver, and how practical they were etc. The Impact Assessment would have to look at the issues raised, in particular practicality, affordability.

6. Any other business

Mr. Eifel mentioned that since the 6th December, a corrected version of the working plan study had been on the DG ENTR website. He hoped to send out a consultation document on the work plan in

January, for a Forum meeting in February, He asked participants to send him their comments (for example suggestions for addition of further products) as soon as possible.

The Chairman said that the next meeting of the Forum would probably be in the 3rd or 4th week of February. There would also be a meeting on the 8th February to discuss a consultation document (to be sent out in the next few days) on the revision of the Energy Labelling framework Directive (92/75/EEC). Members of the Energy Labelling committee would be invited, as would the stakeholders normally invited to Energy Labelling committees.

List of written statements from members of the forum
(as filed in CIRCA)

Comments on agenda point 2 received before the meeting

<input type="checkbox"/>	Title+
	Previous Section
i <input type="checkbox"/>	071212 ECOPROFILE CFLni.pdf
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i <input type="checkbox"/>	071212 ELC Comments Working document on possible Ecodesign..pdf
i <input type="checkbox"/>	071212 ELC position on Office Lighting.pdf
i <input type="checkbox"/>	1.20071213_CELMA Comments on the Commission WD on Office Lighting_FINAL.pdf
i <input type="checkbox"/>	2.20071207_DRAFT CELMA tables A B C for general lighting luminaires energy efficiency TERTIARY sector.xls
i <input type="checkbox"/>	3.20071207_General Presentation of the CELMA proposal for an IM for lighting products in the TERTIARY sector.pdf
i <input type="checkbox"/>	4.20071207_CELMA proposal EuP IM for lighting products in the TERTIARY sector.pdf
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i <input type="checkbox"/>	Final position Env NGO Office lighting IM.pdf
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i <input type="checkbox"/>	RREUSE_EuP_OfficeLight_Comments.pdf

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