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DRAFT MINUTES of the

Consultation Forum on two implementing measures with regard to ecodesign and labelling for washing machines-04/12/2008

Centre Albert Borschette (CCAB), Brussels

Participants: see Annex 1

The Chairman opened the meeting by recalling the aim of the proposed two implementing measures for washing machines which is to improve the energy efficiency of washing machines (WM), hence contribute to the 20% energy efficiency target set for 2020. The *working document on a possible Commission Regulation implementing Directive 2005/32/EC with regard to household washing machines* (Annex 2) proposes to set new minimum requirements phasing out the less efficient models from the market, while the proposed *working document on a possible Commission Directive implementing Directive 1992/75/EC with regard to household washing machines* (Annex 3) is foreseeing the revision of the labelling scheme in order to drive the market towards more energy efficient models.

The Chairman highlighted that the two working documents tabled for discussion were presented exceptionally in the format of a draft legislative proposal so as to give a clear view of those provisions meant to be included respectively in the Eco-design or in the Labelling measure. Although the labelling does not fall under the competence of the Consultation Forum, it was considered appropriate to cover both measures to ensure coherence.

The layout of the label was not addressed during the meeting, since it is the object of a specific discussion and decision within the EELEP in its labelling formation.

In general, there was a consensus among stakeholders that the combined approach between the two proposals (ecodesign and labelling) setting common definitions, measurement methods and algorithm for the calculation of the Energy Efficiency Index is a very positive approach which will simplify and facilitate the implementation of both measures.

The debate was mainly concentrated on 3 major issues: the level of ambition of the specific requirements together with the low power mode issue, the possibility of additional generic requirements mainly regarding hot-fill water and cold-wash programmes and the proposed revision of the energy efficiency classes in the labelling scheme.

Specific requirements on energy efficiency

The working document considers the following minimum energy efficiency requirements (hereafter also referred to as thresholds):

- First stage, one year after entry into force of the implementing measure: $EEI < 68$
- Second stage, six years after entry into force of the implementing measure: $EEI < 59$ for $WM \cdot 4 \text{ kg}$

TREN introduced the discussion by underlying that these thresholds cannot be compared with the current levels of the energy efficiency classes because of the new formulae which is proposed for the calculation of the EEI¹: the combined inclusion of the low power mode consumption into the calculation and the reduction of measurement uncertainty (from 15% to 10% for the energy consumption) will have the effect to increase the EEI (i.e. decrease its efficiency) for a given WM compared to the level achieved with the current formulae. Depending on the assumed annual consumption of low power modes (which can only be estimated since no database is currently available including this new parameter) the new energy efficiency requirements will have the effect of removing at the first stage between 16 and 62% of the models, while at the second stage it is likely to remove between 85 to 100% of the models from the market². When very efficient (i.e. low power consuming) low power modes are hypothesised less WM models are phase-out (in that case 16% of the models would be phased out at the first stage), when on the contrary more power consuming low power modes are considered, a higher number of WMs are removed (in that case 62% of the models would be phased out at the first stage). CECED confirmed these figures and underlined that they show how ambitious the second stage of the energy efficiency requirements is: it will have the effect to remove 99% of today's product placed on the market.

ECOS (European Environmental Citizens' Organisation for Standardisation), speaking in the name of environmental NGO's³, expressed disagreement with these assumptions. Current available technology will allow to rapidly decrease the low power mode consumption of WM, so that the impact of the energy efficiency requirements was

¹ See working document on ecodesign, annex IV:

$$EEI = \frac{AE_C}{SAE_C} \times 100$$

$$AE_C = E_i \times 220 + \frac{\left[P_o \times \frac{525.600 - (T_i \times 220)}{2} + P_l \times \frac{525.600 - (T_l \times 220)}{2} \right]}{60 \times 1.000}$$

² See power point presentation discussed during the meeting and available on CIRCA, slides 27 to 31.

³ Including INFORSE (International Network for Sustainable Energy), EEB (European Environmental Bureau), CAN (Climate Action Network Europe), Greenpeace European Unit, WWF-Europe.

overestimated. In any case, if higher energy efficiency thresholds are to be set because of the inclusion of low power modes into the EEI formulae, more data are needed to demonstrate the real share of low power modes into annual energy consumption of WM.

TREN replied that in the presented calculations “efficient” low power modes are 1W for off-mode and 2W for left-on mode, while “inefficient” low power modes are 2W for off-mode and 3W for left-on mode. These values are in line with those analysed in the EuP preparatory study for stand-by.

AT, NL, UK, ECOS, ANEC/BEUC asked for more ambitious energy efficiency requirements. The UK underlined that already 98% of WM were in energy efficiency class A on the British market so that it would be feasible to shift the second stage from six years down to three years. Low power modes are however not included in their evaluation. A "front runner approach" was advocated setting the most efficient model as the mandatory target within 6 years implementation time (NL).

Low power mode

The EC regulation on stand-by exempts appliances (such as WM and dishwashers) equipped with sensor based protection function(s) on the ground that they are justified from a safety point of view (for example avoid water leakage) but need some more power in order to allow the basic electronics to work. The proposal described in the Working Document is built on the mentioned Regulation and proposes that the low power modes consumption is always (i.e. with or without sensor based protection functions) accounted for in the calculation of the overall WM annual energy consumption while appliances with no sensor based protection function(s) should comply with the thresholds of the stand-by Regulation. If the low power modes consumption is indeed included into the formulae of the EEI, pressure will be put on manufacturers to further optimize this parameter in order to comply with the ecodesign specific requirements and to achieve a better energy efficiency rating.

AT contested the technological ground for exempting WM from the provisions of the stand-by regulation. Some WM were indeed already placed on the market with security systems avoiding water leakage with no power consumption in the off-mode (NL). The Lot 6 – standby preparatory study on the contrary showed that WM with a sensor based option were not able to comply with the thresholds for the low power modes (TREN, CECED). For this reason, the Regulation on stand-by does not apply to models with such sensors protection. The overall EEI formula proposed for WM should solve the issue since the energy consumption of low power modes would always be taken into consideration in the calculation of the EEI.

Since the preparatory study showed that consumers often forget to switch their machines off (left-on mode activated sometimes for several hours), a question was raised as to the possibility to have automatic power down function after completion of a washing cycle (AT, ANEC/BEUC, NL).

Other proposals for mandatory requirements

Life-duration of WM: ANEC/BEUC stressed that it would be important to work on the possibility to repair WM for example by setting mandatory requirements on the availability of spare parts in order to extend their life duration. TREN replied that such parameters can indeed help evaluating the potential for improving the expected generation of waste

material, recycling and possibilities for reuse and recovery of materials. However, they cannot be translated into legally binding provisions and are almost impossible to verify or enforce.

Cold wash option: Some stakeholders (DK, ECOS) asked for the inclusion of a generic provision requesting all WM to be able to wash at cold temperature (20°C or 0°C) which would result in a 50% decrease in energy consumption compared to a wash cycle at 40°C. According to a recent briefing note published by the UK Market Transformation Programme (also available on circa), cold wash may have some draw backs, namely: it will not allow to achieve a cleaning performance class A (including associated health issues), the impact on the environment of the detergent making it possible to wash at cold temperature is not well known, cold washes may be found to be more effective in summer than in winter because of the difference in the temperature of the incoming cold water (TREN).

Hot fill: Several stakeholders (ANEC/BEUC, ECOS) asked to support the up-take of hot fill-ready machines by simply indicating on the label if the WM model accepts hot-fill water or not. This option is mainly relevant in Southern countries where some households use solar energy. However, the energy savings potential from hot fill water prove to be marginal mainly because the quantity of hot water necessary for a typical 6 kg WM consuming about 17 litres is only 3 litres (TREN). A problem with hot fill lies also with the fact that since only few litres of hot water are required for the washing cycle, the water arriving in the machine from the pipes will be cold: unless the distance between the heating source and the WM is very low the water arriving in the WM will be the colder water stocked in the pipes (CECED). In addition, the filling of warm water which will then remain in the pipes will cool down, which will increase the heat losses of the hot-fill system.

Spin drying efficiency: DK underlined that the display of the spin speed, as is the case on the current label, does not give valuable information to consumers; the residual moisture may be more informative. TREN replied that it is indeed proposed to take out the reference to the spin speed on the revised label and to maintain it only in the technical fiche of the energy labelling since it is one of the relevant technical parameter of the specific machine.

Load indicator: NL suggested adding a generic requirement for the fitting of load indicators at the second stage of the implementing measure (6 years after entry into force) which would indicate to consumers when they have reached the full load capacity of their WM.

Rinsing performance: There was a consensus among stakeholders that the rinsing performance of WM should be included in the IM once the measurement standard, currently under development, will be available (SE). The rinsing performance is also directly related with mandatory requirements on water consumption: there is a need to avoid that lower water consumption is achieved at cost of less good rinsing performance (with potential negative impact on health) (TREN/CECED). TREN also explained that unfortunately despite major efforts and research projects developed worldwide in the major washing machine markets (EU, USA, AU) the issue of the rinsing performance/efficiency is far from being solved due to the low reproducibility (very high measurement uncertainty) of the measurement methods under study. A too high

measurement uncertainty makes the measurement method unsuitable for legislative applications since the verification of the declared values will be in practice impossible.

Scale in the detergent dispenser: In order to reduce the negative environmental impact of detergent, the introduction of a scale in the detergent dispenser was considered in the WD so as to help consumers in defining the right amount of detergent they need for good washing performance. Serious concerns were raised however as to the practicality of this measure. The wide range of detergent type on the market makes it impossible to draw a scale that will be accurate and still understandable by consumers. In addition, WM last for 10 years on average, so that the scale is likely to become outdated after several years. The most reliable way to communicate on detergent is to indicate the right dosage on the package of the detergent itself (DE, CECED).

Labelling scheme

In 2005, the reference year of the preparatory study, 90% of washing machines were in class A or above (the so called A+ class, which has been established via a commercial agreement among CECED's manufacturers but has no legal basis within the EU). There is therefore a need to revise the directive if innovation has to be further encouraged. CECED strongly advocated a quick revision of the labelling scheme. Despite the latest reduction in WM sales due to the economic downturn, energy efficiency remains a good selling point. Industry needs visibility to maintain the sustainability of its investments.

Several stakeholders (DK, ECOS, ANEC/BEUC) stressed that differentiation between product was indeed key for the success of a labelling scheme in driving innovation towards better energy efficiency products. On the other hand, it is obvious, that the higher the energy efficiency requirements will be set at the second stage of the proposed ecodesign Regulation, the lower the possible differentiation between products will be. The second stage may indeed have the effect of leaving the choice to consumers between only two classes. The preparatory study showed that there is a room for improvement up to $EEI \cdot 40$ using the Best Non Available Technology (BNAT) which are currently known (TREN)⁴. CECED confirmed that the industry is already working on populating the three upper empty classes (between 52 and 40) provided a new labelling scheme is adopted rapidly: if there is no possibility for the industry to communicate towards consumers on better energy efficiency performance of models, there will be no energy efficiency improvements.

Taking into account the proposed mandatory requirement to ban all WM below class A as regards washing performance, it is suggested to take out the ranking of the washing performance of the labelling scheme; there is little room for improvement above class A (TREN). The only issue is about the less stringent threshold for WM with a load capacity below 3 kg which will imply that these smaller WM may have a washing performance in current classes A or B (ANEC/BEUC). A way to convey information towards consumers on this niche market should however be found without keeping the ranking of washing performance for all other WM. A possibility could also be to ban WM with a washing performance at class B after a certain period of time (TREN).

⁴ The analysis of the preparatory study on BNAT did not take into account though the impact of the low power mode on energy consumption.

Consumer information

In addition to the energy efficiency improvements above the current levels which should be fostered by the revision of the labelling scheme and the ecodesign requirements, it would be probably more cost-effective to look for further energy savings by improving the communication addressed to consumers on how to best use their machines, eg. by choosing the less consuming programme or using the machine at full load capacity (TREN). Such advice could be developed in the user manuals showing the actual consumption of electricity and water for every washing cycle available.

Calculation of the energy consumption (3+3+2)

It is proposed to calculate the energy consumption of a WM (E_t) across several washing cycles according to the following formulae:

$$E_t = (3 \times E_{t,60} + 2 \times E_{t,60^{1/2}} + 2 \times E_{t,40^{1/2}}) / 7$$

Some proposals were made in the written replies for a different weighted average but a more detailed scrutiny show that they have the outcome to systematically underestimate the real energy consumption of washing machines measured in real life conditions (TREN)⁵. Although the alternative weighing formulae proposed by stakeholders are probably more in line with the actual consumer behaviour in term of frequency of the washing cycles' temperature, the initial formula proposed by TREN in the working document better reflects the real life energy consumption of such cycles. It puts thereby consumers on the safe side by slightly overestimating the declared overall annual energy consumption of the washing machines. CECED highlighted that the move towards the 3+2+2 cycles was a positive step forward since it will oblige manufacturer to optimize WM across several cycles.

DE also asked to use the same weighted average (3+3+2) to calculate the water consumption.

Other issues

Washer-dryers: A possible problem was highlighted concerning the potential overlap of two different labelling schemes: the newest one on washing machines and the oldest scheme still applicable for washer-dryer. This would mislead consumers (a A graded washer-dryer would be less efficient than an A graded washing machine) and pave the way for unfair competition between the two markets (DE, UK). TREN will address the issue by working in parallel for the definition of ecodesign specific requirements and energy labelling scheme also for this products, taking into consideration the results of the preparatory study for the dryers so as to have the most recent information about the drying part of the cycle of a washer-dryer.

Standardisation: Since a new revision of the International Standard EN 60456 on washing machines is expected in a short term, a statement was added by CECED to urge the Commission to incorporate it in the legal text at the earliest possible time. The chairman confirmed that the IM has to clarify which are the measurement methods

⁵ See power point presentation discussed during the meeting and available on CIRCA, slides 14 to 16.

applicable as long as the newest standard is not available, but includes a clear provision stating that when a new suitable standard is ready and published in the official journal, it will supersede the relevant measurement method defined in the IM.

Annex 1: List of participants

Last name	First name	Member States or company/organisation's name
Fagerlund	Kirsti Hind	Norway
Bogner	Thomas	Austria
Schäppi	Bernd	Austria
Gerhard	Ludwar	Austria
De Groot	Maya	Belgium
Van Der Linden	Inge	Belgium
Crevecoeur	Guibert	Belgium
Bontchev	Bontcho	Bulgaria
Hyksa	Vlastimil	Czech Republic
Nielsen	Anne	Denmark
Peled	Michelle	Denmark
Kulbas	Heikki	Estonia
Bisson	Evelyne	France
Lefebvre	Herve	France
Blickwedel	Peter	Germany
Dietrich	Sasha	Germany
Halatsch	Andreas	Germany
Akkerman	Floris	Germany
Drachenberg	Tino	Germany
Cserti	Istvánné	Hungary
Sweeney	Mark	Ireland
Moneta	Roberto	Italy
Gargantini	Fabio	Italy
PRESUTTO	MILENA	Italy
Fumagalli	Simonetta	Italy
Lavrentjeva	Anna	Latvia
Gubavicius	Mindaugas	Lithuania
Stonkus	Mindaugas	Lithuania
BORRELBACH	Romain	Luxemburg

Micallef	Joseph	Malta
Siderius	Paul JS	Netherlands
Spiegler	Johannes Willem Lucas	Netherlands
Pinto	Carla	Portugal
Ursea	Lucian	Romania
Magyar	Jan	Slovakia
Jasurek	Igor	Slovakia
HERRERIAS	ENRIQUE R.	Spain
Rodríguez Martínez de la Casa	José Félix	Spain
Bennich	Peter	Sweden
Webb	Martyn	United Kingdom
Mills	Steven	United Kingdom
Maurer	Sylvia	ANEC/BEUC
Grether	Stefanie	ANEC/BEUC
Heilmann	Gerhard	ANEC
Rambaldi	Matteo	CECED
Meli	Luigi	CECED
Falcioni	Paolo	CECED
Durmus	Onur	CECED
Mrotzek	Herbert	CENELEC
Reintjes	Norbert	ECOS
Toulouse	Edouard	ECOS
Attali	Sophie	ECOS
Cliquot	Nathalie	EEB
Bjorkdahl	Erik	Grayling Global
Czyzewski	Gundula	CENELEC
Seiffert	Edmund	CECED