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COMMISSION STAFF WORKING DOCUMENT

Accompanying document to the

Commission Regulation implementing Directive 2005/32/EC with regard to ecodesign requirements for televisions

IMPACT ASSESSMENT SUMMARY

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IMPACT ASSESSMENT SUMMARY

BACKGROUND

The Ecodesign Framework Directive 2005/32/EC ("Ecodesign Directive") lists products which have been identified by the Council and the European Parliament as priorities for the Commission for implementation. It includes consumer electronics (Article 16), and televisions are one of the most important consumer electronics product categories in this respect.

The Spring Council 2007 called for thorough and rapid implementation of the five priorities¹ set by the Energy Council on 23 November 2006², based on the Commission's Action Plan on Energy Efficiency. The priorities include to "dynamically and regularly improve and expand the scope of minimum efficiency requirements for energy-using products, including standby-loss reduction", by "fully utilizing the Eco-Design Directive". The strategy of adopting minimum energy performance standards for equipment and appliances was welcomed by the European Parliament³.

APPROACH FOR SETTING ECODESIGN REQUIREMENTS

The approach for developing the ecodesign implementing regulation for televisions and this impact assessment was structured in four steps:

Step 1: assessment of the criteria for ecodesign implementing measures as set out in Article 15(2a)-15(2c) of the Ecodesign Directive, taking into account the ecodesign parameters identified in Annex I of the Ecodesign Directive;

Step 2: consideration of relevant Community initiatives, market forces and environmental performance disparities of televisions on the market with equivalent functionality as set out in Article 15(2) of the Ecodesign Directive;

Step 3: establishing policy objectives including the desirable level of ambition, the policy options to achieve them, and the key elements of the ecodesign implementing measure as required by Annex VII by the Ecodesign Directive;

¹ Brussels European Council 8/9 March 2007, Presidency Conclusions, 7224/07.

² TTE (Energy) Council on 23 November 2006, 15210/06.

³ European Parliament resolution of 31 January 2008 on an Action Plan for Energy Efficiency

Step 4: environmental, economic and social assessment of the impacts, with a view to the criteria on implementing measures set out in Article 15(5) of the Ecodesign Directive.

The analysis carried out in the framework of Steps 3 and 4 has been extended to a possible energy efficiency labelling scheme pursuant to Council Directive 92/75/EEC of 22 September 1992 on the indications by labelling and standard product information of the consumption of energy and other resources by household appliances⁴.

SUMMARY OF THE RESULTS

Step 1

In order to assess the criteria for ecodesign implementing measures as laid out in Article 15(2) of the Ecodesign Framework Directive, the Commission has carried out a technical, environmental and economic study for televisions ("preparatory study") following the provisions of Article 15(4a) and Annex II of the Framework Directive.

With regard to the criteria established by Article 15(2) of the Ecodesign Directive, the preparatory study concludes that the most significant environmental impact is electricity consumption during the use-phase, and the following results were established for the EU:

Article 15 (2a):	Annual sales volume in the Community of TVs:	approx. 32 mln
Article 15 (2b):	Environmental impact, in particular use phase electricity consumption	54 TWh in 2005 for EU-25, and an expected electricity consumption of 132 ⁵ TWh by 2020 in EU-27
Article 15 (2c):	Improvement potential for on-mode power consumption	20%-30% respectively by optimisation of conventional LCD and PDP respective display technologies (impact of new display technologies not known yet)

The volume of sales of approx 32 million units per year is far above the indicative 200000 units provided for in the Ecodesign Directive. It is expected that the annual sales will increase to approx. 45 million units by 2020.

The annual electricity consumption of TVs for EU-27 in 2007 approx. corresponds to the electricity consumption of the Czech Republic, and the expected electricity consumption by 2020 corresponds approx. to the electricity consumption of Sweden.

⁴ OJ L 297, 13.10.1992, p. 16.

⁵ of which 130 TWh related to on-mode, and 2 TWh standby/off-mode

Assuming that the average on-mode power consumption is improved by 20%-30%, the annual electricity consumption of TVs would be reduced by approx. 30 TWh by 2020, which corresponds approx. to the electricity consumption of Hungary, and is considered to be significant. Further significant environmental impacts are lead, mercury and brominated flame retardants contained in TVs (hazardous substances), and waste, which are targeted by policies on restrictions of the use of certain hazardous substances⁶ ("RoHS") and waste⁷ ("WEEE") from TVs.

The improvement potential is due to the fact that technical solutions exist which yield reductions of the electricity consumption of TVs with equivalent functionality, compared to the market average. These technical solutions lead to a wide disparity of electricity consumption of the TVs available on the market.

The improvement potential leads to a reduction of life cycle costs (cost-effective) without significantly increasing the purchasing price for a TV, because it is related to technical solutions which do not involve significant additional costs.

Step 2

Further to Articles 15(2) and 15(4c) of the Ecodesign Directive, relevant Community and national environmental legislation is considered. Related (voluntary) initiatives both on Community and Member State levels are taken into account, and barriers preventing for market take-up of technologies with improved environmental performance are analysed.

Several market failures have been identified to explain that cost-effective technologies leading to energy efficiency improvements are not penetrating the market to a satisfactory extent by market forces alone. The environmental performance of TVs, including the use-phase energy consumption, has not been a decisive factor for the purchasing decision of consumers and no easily accessed and understood information on running costs/energy savings is available, and there is little awareness of the energy consumption and the associated costs (asymmetric information). Furthermore not all environmental costs are included in electricity prices. As a result consumer (and producer) choices are made on the basis of lower electricity price not reflecting environmental costs for the society (negative externality). Therefore little incentives exist for manufacturers to optimise the environmental performance of TVs, in particular the energy consumption, and cost-effective improvement potentials are therefore often not realized.

Several initiatives on Community level and on MS level aim/aimed at improving the environmental performance of TVs. The RoHS, WEEE and ecodesign for standby/off-mode initiatives have improved – and/or are expected to improve in the future – the environmental performance of TVs as related to hazardous substances, waste and electricity consumption in standby/off-mode. However, the initiatives have not improved – and are not expected to improve – the on-mode power consumption to a satisfactory extent. Therefore additional legislative action pursuant to the Ecodesign Directive based on Article 95 of the Treaty should

⁶ Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment, OJ L 37, 13.2.2003, p. 19.

⁷ Directive 2002/96/EC of the European Parliament and of the Council of 27 January 2003 on waste electrical and electronic equipment, OJ L 37, 13.2.2003, p. 24.

be taken on Community level, and Member States expect that a harmonized legislative framework is set.

Conclusion of Step 1 and Step 2

The analysis carried out in Steps 1 and 2 shows that

- the volume of sales and trade of TVs in the Community is significant;
- the environmental impact of TVs is significant, the main environmental aspect being the electricity consumption of TVs in on-mode;
- significant cost-effective improvement potentials for the on-mode electricity consumption exist, which are linked to a wide disparity of the environmental performance of TVs on the market with identical functionality;
- initiatives on Community and Member State level, and market forces alone do not capture the improvement potential for on-mode power consumption to a satisfactory extent.

It is concluded that the criteria for ecodesign implementing as set out in Article 15(2) of the Ecodesign Directive are met, and TVs shall be covered by an ecodesign implementing measure pursuant to Article 15(1) of the Ecodesign Directive.

Step 3

Further to Annex II of the Ecodesign Directive, the level of ambition for improving the electricity consumption of TVs should be determined by an analysis of the least life-cycle cost for the user. Furthermore, benchmarks for technologies yielding best performance, as developed in the preparatory study with additional input from the Consultation Forum, are considered. The results are reflected in the objectives that the ecodesign regulation and the complementary energy labelling Directive aim to achieve.

Several policy options for achieving a market transformation realizing the appropriate level of ambition are considered, including the business as usual case, self-regulation, energy labelling for TVs, an ecodesign regulation on TVs, and combinations of the latter two.

However, due to the clear mandate of the Legislator for establishing ecodesign requirements for TVs, the depth of the analysis for options other than an ecodesign implementing measure is proportionate for an implementing legal act, and the focus is on the assessment of the ecodesign implementing regulation, complemented by the additional impacts of an energy labelling scheme.

Step 4

An assessment of the implementing measure is carried out. In particular, sub-options for the timing of ecodesign requirements for on-mode power consumption are analysed, taking into account the criteria set out in Article 15(5) of the Ecodesign Directive, and the impacts on manufacturers including SMEs:

Conclusion on Step 3 and Step 4

After a comparison of those options it became clear that the appropriate policy option for realizing the improvement potential is a combination of a regulation setting ecodesign requirements and a directive establishing an energy labelling scheme pursuant to Council Regulation 92/75/EEC with the following main characteristics:

Based on assessment of costs and benefits sub-option 1 is the preferred option which optimally fulfills the requirements of the Ecodesign Directive. Therefore ecodesign requirements for on-mode power consumption are set in two stages becoming effective one year after entry into force and on 1 April 2012, respectively; with a view to the expected introduction of new display technologies the ecodesign requirements should be reviewed not later than 3 years after entry into force of the regulation.

A complementary energy labelling scheme establishes mid-term benchmarks for on-mode power consumption.

This combination of ecodesign requirements and energy labelling implies the following:

- the ecodesign requirements realise cost-effective improvement potentials for on-mode power consumption;
- the labelling scheme creates market transparency for consumers and provides incentives for manufacturers for innovations/investments in energy efficiency;
- the combined effects lead to market transformation yielding significant annual energy savings of 43 TWh by 2020 related to on-mode power consumption (more than the electricity consumption of Romania), assuming an annual improvement triggered by energy labelling of 4%, corresponding to 15 Mt CO₂ emissions, compared to a business as usual scenario with an expected on-mode electricity consumption of 130 TWh by 2020;
- anticipating the standby/off-mode power consumption requirement foreseen for the second stage of the standby/off-mode regulation (effective 2011 instead of 2013) leads to additional aggregated electricity consumption savings of approx. 2 TWh;
- a clear legal framework is created which ensures fair competition;
- the requirements for on-mode power consumption in the Community are harmonised, leading to a minimization of administrative burdens and costs for the economic operators;
- that no disproportionate burdens and small additional costs for manufacturers are created due to transitional periods which duly take into account re-design cycles, speed of innovation and return of the associated investments.

MONITORING

Monitoring of the impacts will mainly be done by market surveillance carried out by Member State authorities ensuring that the requirements for ecodesign and energy labelling of TVs are met, whereas the appropriateness of scope, definitions and concepts will be monitored by the ongoing dialogue with stakeholders and Member States.