

Explanatory notes accompanying an Industry proposal for a Voluntary Agreement to improve the energy consumption of Complex Set Top Boxes within the European Community

I) Introductory remarks

The preparatory study on Complex set-top boxes (hereafter CSTBs) (defined as set-top boxes with conditional access) concluded that these devices have large sales volumes and a significant environmental impact which could be considerably improved through a set of Ecodesign requirements.

In line with the provisions of Directive 2005/32/EC, priority is to be given to self-regulation where a number of conditions are fulfilled. A group of service providers, equipment manufacturers, software providers, conditional access providers and component manufacturers decided to table a Voluntary Industry Agreement (hereafter referred to as 'VA') to improve the energy consumption of Complex Set Top Boxes within the European Community.

The rationale for addressing the environmental impact of CSTBs through self-regulation appears to be underpinned by the following characteristics of this product group:

- The energy consumption of these devices is impacted not only by their design but also the way they are operated by the service providers (essentially providers of television broadcasting and related services). A significant improvement of the energy efficiency of CSTBs necessitates therefore a close cooperation of hardware, software and service providers.
- The functions of these devices and related products (e.g. data modems) are quickly evolving and often merging which requires a flexible approach in terms of defining the addressed parameters and setting applicable requirements.
- Although the number of potential manufactures of CSTBs is enormous, the bulk of CSTBs specifications are drawn up by restricted number of service providers/operators.

II) Overview of the draft VA on the basis of the criteria included in Annex VIII of Directive 2005/32/EC

In line with Article 17 of the Ecodesign Directive, voluntary agreements or other self-regulation measures presented as alternatives to implementing measures shall be assessed at least on the basis of Annex VIII of that Directive.

1. Openness of participation

The agreement development is open to all interested parties. Its drafting followed a transparent process and timetable that was agreed with all members. On 8 September 2009 the

Digital Interoperability Forum organised a workshop in Brussels in order to raise the awareness about this initiative among industry and other stakeholders.

2. Added value

The draft VA aims at improving the energy efficiency of CSTBs beyond business as usual. Broadly speaking and with some exceptions the VA's Tier 1 levels correspond to the recommendations of the preparatory study, but are introduced one year earlier than it was suggested. The VA's Tier 2 levels are less ambitious in terms of timing and levels than the recommendations of the study. It is worth noting however that Tier 2 and 3 as recommended by the preparatory study are partly based on best not available technology (low-power standby mode for CSTBs). A more detailed comparison of the timing and levels of the base-case, the VA and preparatory study suggestions is provided in Annex I.

3. Representativeness

Annex VIII of the Directive stipulates that Industry and their associations taking part in a self-regulatory action shall represent a large majority of the relevant economic sector. An estimation of the covered market share will be provided by the possible signatories of the VA and assessed by the Consultation Forum. Early indications provided by a market research company on the request of the companies supporting the VA indicate that this market share is in “in excess of 70% to date”. Should there be a lack of evidence on the representativeness of the VA by November 23 (six weeks from the meeting of the Consultation Forum), the COM services would pursue the legislative process.

The list of companies providing support to the draft VA is provided in Annex II.

4. Quantified and staged objectives

The draft VA provides quantified objectives to be introduced in two stages (outlined in Annex I of this paper). These objectives are to be met by the indicated deadlines by 90% of the signatories' products placed on the market (in the case of manufacturers) or put into service (by the service providers). In addition to quantified objectives the draft VA includes commitments on the provision of information to the consumer and guidelines on power management.

5. Involvement of civil society

The draft VA stipulates that the meetings of the Steering Committee will be opened to any *"person who wishes to attend and who the Steering Committee believes represents a legitimate stakeholder"*.

6. Monitoring and reporting

The draft VA provides the modalities for monitoring and reporting. The monitoring will be performed by the Steering Committee composed of signatories and of the European Commission and its meetings will be opened for the participation of Member States, EFTA,

and any other person who wishes to attend and who the Steering Committee believes represents a legitimate stakeholder. This monitoring will be performed on the basis of reports submitted by an Independent Inspector (the Joint Research Centre expressed willingness to perform this role subject to an agreement on the precise modalities of this involvement) based on data collected from the signatories provided in accordance with Annex G of the draft VA.

7. Cost-effectiveness of administering a self-regulatory initiative

It is expected that the administrative burden as compared to other available policy instruments will remain limited.

8. Sustainability

The draft VA responds to the policy objectives of the Ecodesign Directive by aiming at reducing the environmental impact of CSTBs.

9. Incentive compatibility

The first element worth mentioning here is Regulation 1275/2008 with regard to ecodesign requirements for standby and off mode electric power consumption of electrical and electronic household and office equipment. CSTBs fall under the scope of that Regulation nevertheless the operational modes included in the draft VA do not include 'off' and standby modes as defined in the Regulation. The preparatory study indicated that although in principle CSTB can operate in five different modes- on, standby active, standby passive, off and disconnected, most CSTB do not have a standby mode passive and off is not used either since complex STBs need to be constantly in on mode or networked standby to be able to operate properly. The assessment whether off mode and/or standby mode as defined in Regulation 1275/2009 are appropriate for the intended use of CSTBs has to be performed on a case-by-case basis by their manufacturers and specified accordingly in the technical documentation.

The second element related to this initiative is the European Code of Conduct for Digital TV Services orchestrated by the JRC. It is suggested to find synergies between these two initiatives both in terms of administration and areas of focus. Taking into account the fact that the bulk of the improvement for this product group can be achieved with best not available technology (low-power standby) the CoC has still its role as a forum for seeking innovative technology solutions.

Annex I. Comparison of base-case levels, VA targets and preparatory study recommendations

Base Functionality (kWh/year)	Base case Levels	Industry proposed voluntary agreement		EuP lot 18 (Preparatory Study) final report recommendations			
		Tier 1 July 2010, no APD	Tier 2, July 2013, APD	Tier 1, July 2011 no APD	Tier 1, July 2011, APD optional	Tier 2 July 2012, APD, low- power standby*	Tier 3, January 2014 APD, low- power standby*
Cable	60,2	45	40	40	32,2	27,6	21,7
Satellite	60,2	45	40	40	32,2	27,6	21,7
IP	60,2	40	35	40	32,2	27,6	21,7
Terrestrial	60,2	40	35	40	32,2	27,6	21,7
Thin-Client/Remote	60,2	40	35	40	32,2	27,6	21,7
Additional Functionalities (kWh/year)							
Additional Tuners	21,9	20	14	20,4	14,1	8,9	8,9
Adv. Video Processing		20	14				
DVR (hard drive)	19,7	20	18	18,5	18,5	7,4	7,4
High Definition (AVP factored in here the case of base case and prep study recommendations)	70,1	20	14	40	32,2	15,9	15,9
Multi-Decode		38	12				
Return path	87,6	60	35	78	78	26	21,3

*BNAT

Annex I. List of companies currently providing support to the VA

ADB
Amstrad
BSkyB
Broadcom
BT
Canal+
Cisco
Humax
Intel
Liberty Global
Microsoft
Motorola
NDS
NXP
Pace
Samsung
Ses Astra
Sogecable
Sky Deutschland (ex-Premiere)
Sky Italia
STM
Tatung
Telenet
Thomson
Viasat
Virgin