



# CONSUMER INTERESTS IN ECO-DESIGN OF COMPLEX SET TOP BOXES

- COMMENTS ON THE PROPOSAL FOR A VOLUNATRY  
INDUSTRY AGREEMENT

**Contact:** Sylvia Maurer – [Sylvia.Maurer@anec.eu](mailto:Sylvia.Maurer@anec.eu)  
[Sylvia.Maurer@beuc.eu](mailto:Sylvia.Maurer@beuc.eu)

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ANEC, the European Association for the Co-ordination of Consumer Representation in Standardisation  
Av. de Tervueren 32, box 27 – 1040 Brussels - +32 2 743 24 70 - [www.anec.eu](http://www.anec.eu)

BEUC, the European Consumers' Organisation  
80 rue d'Arlon, 1040 Bruxelles - +32 2 743 15 90 - [www.beuc.eu](http://www.beuc.eu)

## Summary

- In the context of the implementation of the Eco-design of Energy-using Products Directive, several manufacturers and service providers proposed to increase the energy efficiency of complex set top boxes (CSTBs) with a voluntary self agreement (VA) instead of an EU Eco-design Regulation.
- In this paper we question the suitability of a voluntary agreement to improve the environmental performance of complex set top boxes over the full life cycle and at the least life cycle costs for consumers.
- As the VA seems not to be fully in line with the requirements of Annex VIII of the Eco-design Directive on VAs, we ask for improvements on the reporting, monitoring, compliance and verification procedures.
- We support the proposed test procedures for calculating the energy consumption of CSTBs as they are based on the Energy Star and are favorable compared to existing Eco-design Regulations.
- We ask to change the technical design of Complex Set Top Boxes and to provide an auto power down function as well as a low power standby mode.
- In addition, we ask to improve the requirements on consumer information as consumers need to be informed about the energy consumption of CSTBs before they purchase a product/ service package.
- Finally, we call on the European Commission to develop sanction mechanisms in case the VA will not deliver the required energy savings. We therefore ask for ambitious mandatory Eco-design Requirements to apply in case the targets of Tier 1 will not be met by all signatories.

## Introduction

In June 2009, a group of manufacturers and service providers proposed a Voluntary Industry Agreement<sup>1</sup> (VA) on Complex Set Top Boxes<sup>2</sup> (CSTBs). With this initiative, manufacturers seek to contribute to more energy efficient complex set top boxes without being subject to an EU Regulation setting mandatory Eco-design requirements for placing these devices on the market.

The European Commission therefore consulted those stakeholders which are members of the Eco-design Consultation Forum on this draft VA.

In this paper, we have outlined our main concerns related to the proposal of the VA. We give also detailed recommendations how the current wording of the VA should be improved in order to make the monitoring, reporting and verification procedures more transparent. In addition, we ask for technical changes in the design of CSTBs such as an auto power down function and a low power standby mode in order to improve the overall energy efficiency of CSTBs and to achieve costs savings for consumers. We also propose a better way of informing consumers about the energy efficiency of CSTBs before they take a purchase decision for a certain product/service package.

Finally, we call on the European Commission to establish ambitious mandatory Eco-design requirements for CSTBs which will enter into force immediately on 1 July 2011 should the signatories of the VA fail to reach their targets of the first stage by this date.

## Voluntary Industry Agreements are unlikely to deliver on energy efficiency

While ANEC and BEUC welcome the initiative to improve the energy efficiency of complex set top boxes, we do not consider a voluntary self regulation as a sufficiently robust measure to ensure that only energy efficient complex set top boxes are available to consumers.

Although the Eco-design Framework Directive (2005/32/EC) gives preference to self-regulatory approaches by industry<sup>3</sup>, consumer organisations have not been supportive of this approach as voluntary environmental agreements often lack transparency, ambition, legitimacy and efficacy<sup>4</sup>.

We have strong concerns that the text of the VA does not meet all minimum requirements for VAs which are required according to Annex VIII of the Eco-design Regulation. In particular we believe that the requirements on transparency, monitoring and reporting need to be improved.

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<sup>1</sup> Voluntary Industry Agreement to improve the energy consumption of Complex Set Top Boxes within the European Community, proposal from the industry group, Version 2, 12 June 2009.

<sup>2</sup> A set top box is a device that connects to a television and an external source of signal such as cable, satellite, telephone line, Internet Protocol Server or Ethernet, Broadband over Power Line, and VHF or UHF antennae, and turns the signal into a content which is then displayed on the TV screen. Complex set top boxes operate in networked home entertainment systems and allow viewers to interact with the content of TV programmes. According to the Preparatory Study the criterion of "conditional access" is being used to differentiate complex from simple set top boxes. The term "conditional access" refers to Pay TV, including Video on Demand, T Commerce and Pay per View.

<sup>3</sup> See Recital 16-19, Article 17 and Annex VIII of the Eco-design of energy-using products Directive (2005/32/EC).

<sup>4</sup> See ANEC/BEUC joint position on Voluntary environmental agreements, 24 October 2006, ANEC-ENV-2006-G-048, BEUC/X/060/2006, <http://www.anec.eu/attachments/ANEC-ENV-2006-G-048.pdf>.

Should the VA be put in place, we ask for the points which we have set out below, to be addressed.

### **Effective date and possibilities for verification have to be clarified**

Chapter 2 of the Voluntary Industry Agreement states that the measure will only apply to products which are placed on the market after the respective date. While this approach would allow for a quick implementation of the VA, it is unclear how new and old CSTBs will be differentiated. As long as CSTB-models remain unchanged regarding their model designation and technological design, it will not be possible for market surveillance authorities to check if the commitments of the voluntary agreement are put into practice.

A clear distinction between old and new CSTB-models is not only important to ensure the implementation of the scheme but is also required to ensure that consumers are informed about set top boxes which are energy efficient and models which consume too much energy.

We therefore urge the Commission and manufacturers to provide more information about how the applicable dates will be made verifiable and how the commitment can be easily monitored.

### **All CSTBs should be in the scope of the VA**

Voluntary Environmental Agreements pose in general the problem that they do not cover the whole market and that potential free riders could undermine the effect of the planned environmental improvements. In addition to this disadvantage, the proposed VA for CSTBs is in particular weak as it is unclear which devices will be within its scope.

In paragraph 4.3.1 of the VA it is stated that each signatory shall ensure that 90% of its CSTBs comply with the Tier 1 energy consumption targets. As the energy consumption targets of the Voluntary Industry Agreement are not particularly strict, we see no reason why a certain percentage of CSTB should be excluded. If certain models will not be able to achieve the efficiency targets on the respective dates, manufacturers and service providers should phase them out by voluntary means.

In addition, we ask to clarify the meaning of the 90% threshold as it leaves room for interpretation: While the requirement may refer to 90% of all devices put on the market, the figure could also refer to 90% of the *models* of a signatory party. The latter interpretation could lead to a widely ineffective measure, as the mass market could theoretically still be served with inefficient devices.

We emphasise that in order to ensure wide market coverage, the wording should refer to the total number of all devices which are placed on the market and should include all models of the signatories (100%). The market coverage

In addition, to achieve better coverage, more manufacturers and service providers need to participate in the agreement as the Eco-design Directive requires participation with as few exceptions as possible.

A VA would need to cover at least 90% of manufacturers and units on the market to be acceptable for consumers.

### **Tier 2 must be binding for all models**

The wording of paragraph 4.3.1 of the VA which requires only 90% of the models to comply with Tier 1 targets does not mention that Tier 2 requirements on energy must also be met. However, as the Ecodesign Directive requires staged objectives also for VAs (see Annex VIII number 4) and the requirements on tier 1 are not overly ambitious, we ask to replace the wording in paragraph 4.3.1 of the VA as follows:

“Each signatory shall ensure that all of its CSTBs comply with the Tier 1 and Tier 2 energy consumption targets.”

### **Responsibilities for effectiveness of the VA have to be clear**

In chapter 4.10 of the VA, the commitments of the various types of signatories are described. Although this list is useful, it does not contain any key responsibilities. We therefore ask to clarify the key responsibilities for the functioning and the effectiveness of the VA.

### **Reporting must be transparent and comprehensible**

Chapter 5.1 of the Voluntary Industry Agreement lays out the details for the reporting procedures. Although we recognise that competing companies which will be co-signatories of the planned VA might have an interest in not releasing sensitive information, we emphasise the need for transparent reporting.

The presented proposal is very vague as it does not specify which information is considered to be sensitive. As ANNEX VIII point 5 of the Ecodesign Directive requires interim and final monitoring reports to be published and to ensure transparency, we ask to add an additional paragraph to the VA ensuring open and transparent access to all monitoring information for all stakeholders, including consumer organisations.

### **Monitoring must be transparent**

Chapter 5.2 lays out the monitoring procedures aiming at verifying if the objectives of the VA will be met. The text says, however, that the Commission's report should not refer to the performance of individual companies.

With this formulation, the Commission's report will not be transparent. In addition, it will not be possible to apply effective sanction mechanisms based on the findings of the report to signatory companies which do not comply with the requirements of the VA.

We therefore ask to draft the last sentence of the first paragraph in chapter 5.2 as follows:

To preserve ~~business secrets and commercial confidence~~ of consumers and all other stakeholders in the effectiveness of the VA, any official report produced by the Commission in connection with the information supplied by any individual Signatory shall ~~not~~ refer to the performance of individual companies.

Moreover, paragraph 5.2 does not specify explicitly the length of the reporting periods. Therefore, the frequency of Steering Committee meetings between the Signatories and the Commission remains unclear with the current wording.

We therefore ask to specify the length of the reporting periods in the text of the VA.

Chapter 5.2 states further that the Steering Committee will evaluate the effectiveness of the VA, the current and future developments and will set future targets to increase energy savings. It is foreseen that these discussions will take place on a confidential basis.

We do not consider it adequate that meetings will only take place between the Commission and the Steering Committee on a bilateral and confidential basis as we consider it imperative that input is sought from other stakeholders. Experiences with the Eco-design process so far suggest that the input from key stakeholders and independent experts leads to better regulation. In particular, for developing the energy efficiency requirements further, a sound and independent database, as provided in the current Preparatory Study, is considered vital for a good outcome of the process.

This requires that key stakeholders who are represented in the Consultation Forum and independent experts should be actively involved in the development of the VA and the assessment of whether its aims have been met.

### **Composition and voting rules of the Steering Committee must be democratic**

As laid down in chapter 5.3.1 of the VA, decisions to amend the VA will be made according to a voting procedure which is defined in the Steering Committee. However, according to the draft VA agreement, the Steering Committee is composed almost exclusively of industry representatives and with a representative from the European Commission. Therefore, amendments can be decided without taking into account the views of other stakeholders. As the European Commission would be outnumbered by industry representatives, also the European Commission might have little influence in these decisions.

We therefore ask to give all key stakeholders involved in the Eco-design Consultation Forum formal positions and a right to vote in the Steering Committee.

In addition, the EU institutions (Commission, Parliament and Council) should have the possibility to attend the meetings and to veto decisions of the Steering Committee as the right of scrutiny is a principle of the Eco-design Framework Directive.

### **Rules on revision and compliance must be decided now**

We see a need to specify the revision and compliance provisions before the VA enters into force.

Chapter 5.3 describes the mechanisms for revising the VA. However, we see a need to further detail the procedures. In particular it does not seem appropriate to work out with the Commission, by the year 2011, how the Commission will be involved in the revision process as this has to be specified before the VA enters into force.

In chapter 5.4 on compliance, the exact mechanism to remove a signatory is left open. However, we consider it crucial to define the rules for expelling non-compliant companies before the VA enters into force and not by the year 2011 when a revision is foreseen.

### **Procedures to withdraw from the VA must be clarified**

Chapter 7 lays out the principles for the termination of the Voluntary Industry Agreement by a signatory company. According to the draft VA, a unilateral withdrawal from the VA is possible. However, we consider it crucial that this process will be transparent and that all stakeholders will be informed accordingly. We therefore ask to rephrase the requirements as follows:

*“The Chair shall inform all members of the Steering Committee, the European Commission and all stakeholder parties involved in the Ecodesign Process on CSTBs. In addition, the Chair may inform other persons and institutions if appropriate.”*

### **Procedures on penalties and expulsion must be included in the VA**

The VA needs to specify strict sanction procedures which will apply to signatory companies which do not comply with the requirements of the VA. We see a need to introduce provisions on monetary sanctions and procedures for expelling members in the VA before it enters into force.

### **Test procedures should become model for Eco-design**

We support the proposed testing procedures as they are based on the Energy Star requirements. The proposed testing procedures are in general considered to be more appropriate than in the existing Eco-design Regulations as they do not allow for systematically exceeding threshold values by a certain percentage.

We therefore propose to keep the proposed testing procedures and to use them as a model for Ecodesign Implementing Measures.

### **Ambition level of the energy consumption targets**

Comparing the proposed energy efficiency requirements with the Preparatory Study, the Energy Star criteria and the Nordic Swan Eco-label criteria shows that the proposed energy consumption levels would lead to efficiency improvements. However, as mentioned above, the measure will not tap its full improvement potential for two reasons. First, not all devices will be covered by the VA. Second, there are already technologies available that are available to comply with Tier 1 and Tier 2.

Tier 2 requirements, which are envisaged to come into effect on 1 July 2013, are – especially for the base functionality allowances – only slightly stricter than those of Tier 1. In order to stimulate ongoing improvements, Tier 2 requirements should be on average 30-40% below those of Tier 1. This would be more or less in line with the findings of the Preparatory Study.

We therefore ask to include more ambitious Tier 2 targets into the VA before it enters into force.

### **Auto Power Down Function should be mandatory for all set top boxes**

Auto Power Down is an energy saving feature of set top boxes, which is applied to various products on the market. With Auto Power Down, a set top box automatically switches from on-mode into standby if there is no user activity for a certain time span.

Considering that the Eco-design Regulations for simple set top boxes and televisions make an auto power down function mandatory, we ask to ensure that all complex set top boxes will be equipped with this function. The auto power down should be set as default leading to a switch into standby after a maximum of four hours after the last user interaction. For the standby mode initiated by Auto Power Down, the standby requirements of the Regulation (EC) No 1275/2008 on standby and off-mode shall apply.

### **All CSTBs need to provide for a low power standby mode**

The VA agreement leaves it to the manufacturers to decide whether or not they want to include a low power standby mode to achieve the energy efficiency reduction targets. However, we see an urgent need to equip all devices with a low power standby mode.

As complex set top boxes almost always consume energy when connected to the mains, we see a need to equip devices with a low power standby mode of 1 W. For downloading the required updates, complex set top boxes should not remain in active standby levels but should only wake up at certain pre-defined intervals. After downloading the updates, the devices should switch automatically into low power down modes.

Including a low power standby function would not increase the price of a set top box by more than 5 €. The costs savings for consumers could however be considerable (between 2 and 45 € depending on the type of CSTB due to a reduced energy consumption of 14.8% to 31.1%).

The low power standby should be set as a default. If consumers should wish to change this mode for reasons of better convenience to a mode that sets the box into full operation mode quicker, this should be possible. However, consumers should be clearly informed that such a mode consumes much energy.

### **Maximum allowances for additional functions should be defined**

The VA (Annex A.6) specifies that all future additional functionalities which might come up and which might consume additional energy should not be included in the measurement of the power consumption of the box. In addition, software downloads which increase the power consumption should be deactivated when measuring the power consumption of the box.

Although innovations should not be hindered by overly strict requirements on energy consumption, the wording of the VA provides a backdoor to introduce additional functionalities without any energy consumption targets. In fact, new functionalities should always be designed energy efficiently as otherwise the overall consumption will continue to increase in the future. Moreover, it might be more difficult to reduce the energy consumption later on than integrating energy efficiency from the beginning.

We therefore ask to limit the power consumption by introducing the following wording into the VA:

*A.6: “[...] unanticipated additional functionality which consumes significant energy but which is not listed in Table 4 in Annex D (Additional Functionalities Annual Energy Allowance) shall be granted an additional allowance of 20kWh/year in Tier 1 and 14kWh in Tier 2 of the energy consumption targets. [...]”*

*A.7: “Software Downloads to CSTB’s shall not increase the power consumption requirements above the initial TEC allowance.”*

### **Requirements on consumer information**

We welcome that the VA contains in chapter 4.8 requirements on informing consumers about the energy consumption levels of CSTBs. However, we see a need to further specify the requirements as it remains unclear which information has to be given and where the information should be placed.

As CSTBs are usually provided together with a television service, consumers do not decide for or against a certain CSTB model, but choose a product/service package. It is therefore important that the information on this product/service package includes information on the annual power consumption, the possibilities of power savings and end-of-life issues.

Moreover, this information should be standardised so that users can easily compare between the various offers. The information should also always be presented at the point of sale in a clearly visible and understandable manner, in the product manual and a freely available technical data sheet.

We therefore ask to specify in chapter 4.8 the following:

*“[...] inform consumers about the environmental characteristics and performance of CSTBs, and facilitate and encourage consumers to adopt environmental friendly practices in connection with the use and disposal of CSTBs. In particular, Signatories shall provide consumers with standardised, detailed and clearly visible information about the dedicated functionalities, energy consumption levels of the various operations modes, annual power consumption, energy saving options and end-of-life issues. Such information shall be made available at the point of sale, in standardised technical data sheets, in the product manual and online; [...].”*

### **Design for better recycling should be included**

The VA addresses only energy efficiency and neglects all other environmental relevant aspects. We therefore ask to specify requirements which aim at a better design for recycling.

### **Mandatory Eco-design Regulation needed as safeguard mechanism**

As outlined above, we have strong reservations regarding voluntary environmental agreements in the context of public policy making and consider that the aims would be better met through an Eco-design Implementing Measure.

As the Eco-design Directive specifies certain minimum criteria for VAs, e.g. on transparency and monitoring, which are not currently met, we urge the Commission to work towards an improved text of the voluntary agreement before it enters into force.

In addition, we call on the Commission to monitor the implementation of the VA closely.

As a safeguard measure, we call on the Commission to establish an Eco-design Regulation for complex set top boxes which will enter into force on 1 July 2011, should the VA signatories fail to meet their obligations by this date.

**End.**