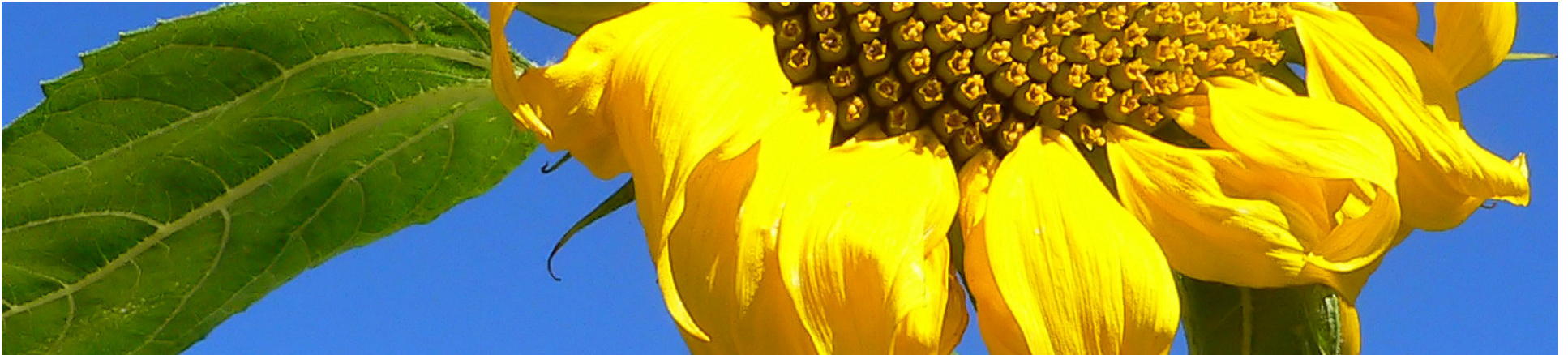


**Intertek**

*M* **AEA**



# **EuP Lot 3 Third Stakeholder Meeting**

**Task 7: Projectors**

**Bob Harrison**

# Introduction Task 7

---

- **Definition**
- **Excluded Products**
- **Power Modes**
- **Proposed Energy-efficiency requirements**
- **Other Energy–efficiency features**
- **Testing Methodologies**
- **Other Environmental Impacts**
- **Relevance of Energy Labelling and Eco-labelling**
- **Potential for Self-regulation**
- **Impact Analysis**

# Definition

---

**Based on the definition risk assessment,**

**A projector is a primarily mains powered, optical device, for processing analogue or digital video image information, in any, broadcasting, storage or networking format, to modulate a light source and project the resulting image onto an external screen.**

**Audio information, in analogue or digital format, may be processed as an optional function of the projector.**

# Excluded Products

---

**Projectors which are categorised as " PROFESSIONAL " and are qualified as follows:**

**A professional projector must meet EMC class A requirements using at least one of the standards, EN 55022 (EMC class A) [Information technology equipment - Radio disturbance Characteristics - Limits and methods of measurement] and/or EN 55103 [Electromagnetic compatibility - Product family standard for audio, video, audio-visual and entertainment lighting control apparatus for professional use].**

# Excluded Products

---

**For further stakeholder discussion in this context, this qualification may need strengthening by the further qualification that:**

**A projector may not be classified as a professional projector, just by virtue of meeting EMC class A requirements, if it is available to the (*retail*) market as a stand-alone product for light industrial or home use applications and can meet its primary function, as defined, without the support of other equipment in an installation.**

# Power Modes

---

## Not doing anything useful – Idle

- Standby
- Network Standby

## Doing something useful – active

- Includes background, secondary functions
- Projecting an image

# Proposed Energy-efficiency requirements

---

## Idle Mode:

Based on the use pattern of the three genre of non-professional projectors (Office, Schools and Home Cinema) and applying the Standby Regulation No 1275/2008 power requirements, in 2012, the following average annual idle mode limits should apply:

- Schools Projector: 4.4 kWh /annum
- Office Projector: 5.6 kWh / annum
- Home Cinema Projector: 7.3 kWh /annum

# Proposed Energy-efficiency Requirements

---

**Active mode (projecting an image) including background secondary supporting functions**

## **Tier 1**

- **Schools Projector: 247 kWh / annum**
- **Office Projector: 110 kWh / annum**
- **Home Cinema Projector: 42 kWh / annum**

*(Based on a projected light output efficiency of .09 W/ lumen)*

# Proposed Energy-efficiency Requirements

---

## Tier 2

- **Schools Projector: 137 kWh / annum**
- **Office Projector: 61 kWh / annum**
- **Home Cinema Projector: 23 kWh / annum**

*(Based on a projected light output efficiency of .05 W/ lumen)*

**Based on the above Energy Efficiency Requirements, the energy savings compared with the base case could be between 0.6 and 1.3 TWh in 2015 and 2020**

# Other Energy-efficiency Features

---

- **Auto power down is currently a default function of all the categories of projectors under consideration. It is primarily a lamp life protection feature. It should continue to apply to projectors with new lamp technologies where lamp life is not an issue in the context of the product lifetime.**
- **HDMI-CEC should be incorporated in any projector with Home Cinema application.**

# Testing Methodologies

---

**Idle mode power requirement (Standby) should be measured in line with IEC62301 Ed.1 and when available the EN harmonised standard mandated for Commission Regulation No 1275/2008.**

**Active mode power requirement (projecting) should be measured under the product stabilisation procedure, measurement conditions and power metering requirements of IEC 62087-2:2008 with the projector displaying maximum resolution images processed from an external digital signal source.**

**Measurement of the total projected light output of the projector is normally made in accordance with ANSI - IT7. 231-2, or for some Eco-labels, the relevant part of DIN EN 61947 – 1 and declared as total luminous flux. There is still considerable stakeholder discussion on how appropriate these testing standards are, for some light path modulation technologies.**

# Other Environmental Impacts of Projectors

---

**These should continue to be positively qualified by adherence to the general product design guidance given in IEC 62075:  
(Environmentally conscious design of AV and IT Equipment)**

**Mercury in projector lamps and lead in light path optical glass is already being eliminated in some industry products. An Industry VA to expedite this procedure is suggested.**

# Relevance of Energy or Eco Labelling

---

**Largest European market for projectors is Schools**

**This market is principally serviced by public procurement and the product's Eco-design qualities could be very positively influenced by, Energy labelling and Eco Labelling.**

# Potential for self-regulation

---

**The European projector market is a small volume market by comparison with most other CE products. Competition for the market is fierce and self-regulation for important eco-design criteria is unlikely to be practicable.**