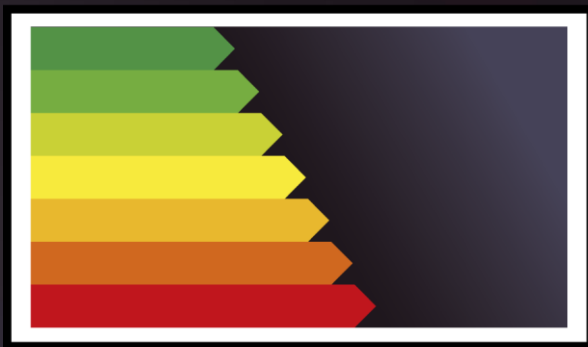


COMPLIANTV



Compliance of TVs and Monitors
with Energy Label and Ecodesign Requirements

Results of TV testing regarding Ecodesign and Energy Label requirements – overview of main results, analysis of the findings and the project recommendations in the field of TV testing procedures

Gergana Dimitrova
& Tom Lock
September 3 2015



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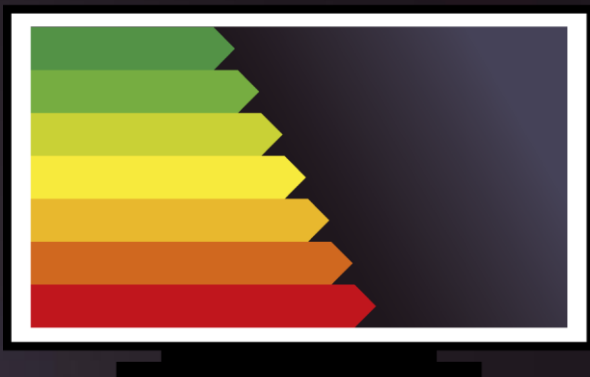
Contents

- Method
- Results
- Commentary
- Testing recommendations



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Compliance of TVs and Monitors
with Energy Label and Ecodesign Requirements

Method



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Method (1/6)

- Objective to test 201 TV units against the technical and information requirements of the EL & ED regs.
- Testing performed by the consortium partners: VDE, ipi and Re/genT
- Measurements made in line with IEC 62087 & EN 50564
- To provide clarity to the market, and to consult on process with the MSAs, it was necessary to set out and declare how the Consortium interpreted specific requirements – Testing Interpretation document



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Method (2/6)

- A TV market analysis was conducted to prepare a product selection methodology; once finalised, these model lists were published online for all 4 batches
- As part of the selection process, the Consortium distinguished between A and non-A brands. A brands were defined as: LG, Panasonic, Philips, Samsung, Sony, TCL, Thomson and Toshiba
- The testing was divided into 4 batches: the first batch contained 60 units, the second 40, third 62 and the fourth 10 units. The remaining units were allocated for step 2 testing

Method (3/6)

- The first batch constituted 57 LCD TVs and 3 plasmas, with a split of 36 A and 24 non-A brands
- The screen sizes of the 60 models were split evenly between 4 size groups: <32", 32", 33-42", >42". These were the most commonly bought TVs between 2012-14, as a consequence models <16" and >55" were excluded.
- The Consortium were keen to take an intelligence led approach to model selection from batch to batch.
- The results of the first batch of testing were used to inform the model selection and targeting approach for batches 2 and 3.



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Method (4/6)

- There was greater targeting of non-A brand TVs in batches 2 and 3 as they were found to have a higher instance of failures in batch 1.
- The proportion of A-brand to non-A brand TVs evolved:

Batch	Quantity	A brand	Non-A brand	% non-A brand
1	60	36	24	40
2	40	12	28	70
3	62	27	35	56
4	10	2	8	80
TOTAL	172	77	95	55

Method (5/6)

- The selection approach for batch 3 also incorporated the following aspects:
 - As a minimum, TVs could not be selected if they were placed on the market before May 2014
 - TV brands not already included in batches 1 & 2 were prioritised
 - Display technologies such as OLED, full/edge LED backlight, multiple tuners, 3D were included
 - Models with high EEC declarations were targeted A++/A+
 - Those models sold in more than one country were prioritised in order to expand the reach and impact of the project



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Method (6/6)

Brands that failed the technical ecodesign requirements (batch 1-3) and where remedy actions were carried out form the 4th batch of models tested by CompliantTV:

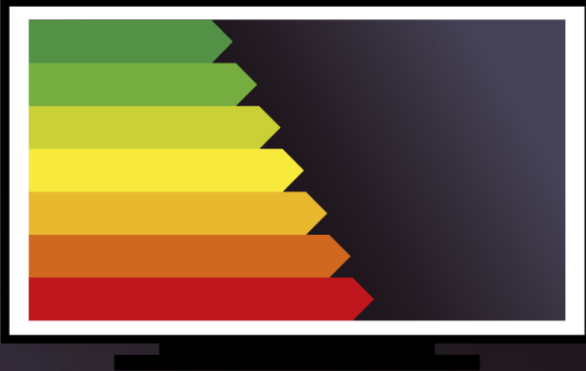
10 TV models:

- 2 A-brands and 8 non-A brands
- 60% of the models are with high efficiency declaration (A+)



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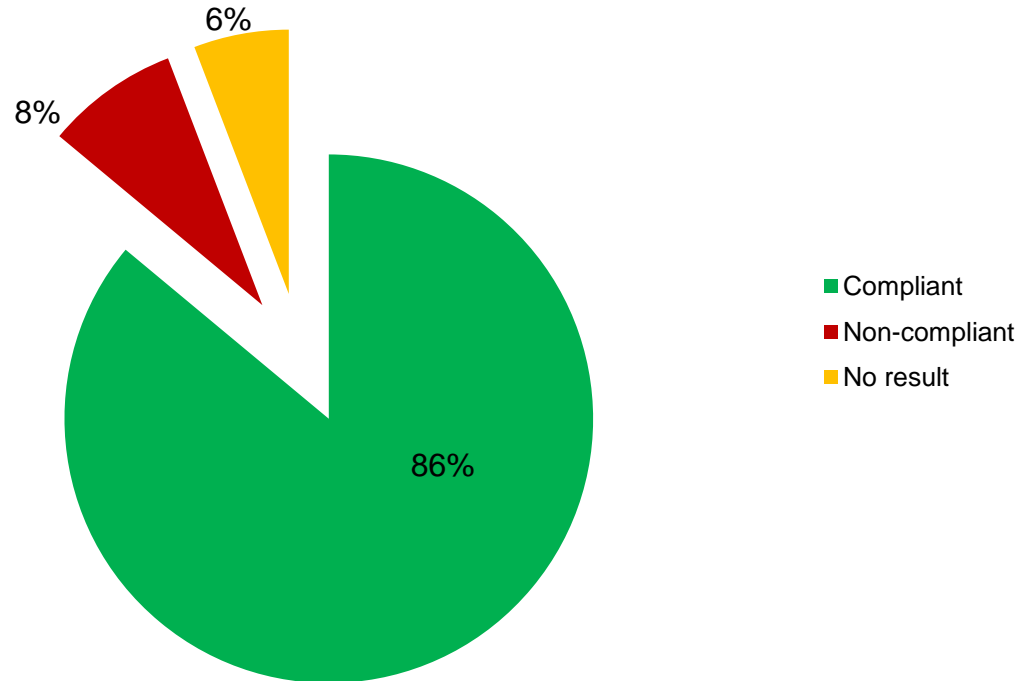
Results – Technical Requirements



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Overall – Technical Pass/Fail (%)

Technical ecodesign requirements Batch 1, 2, 3 & 4

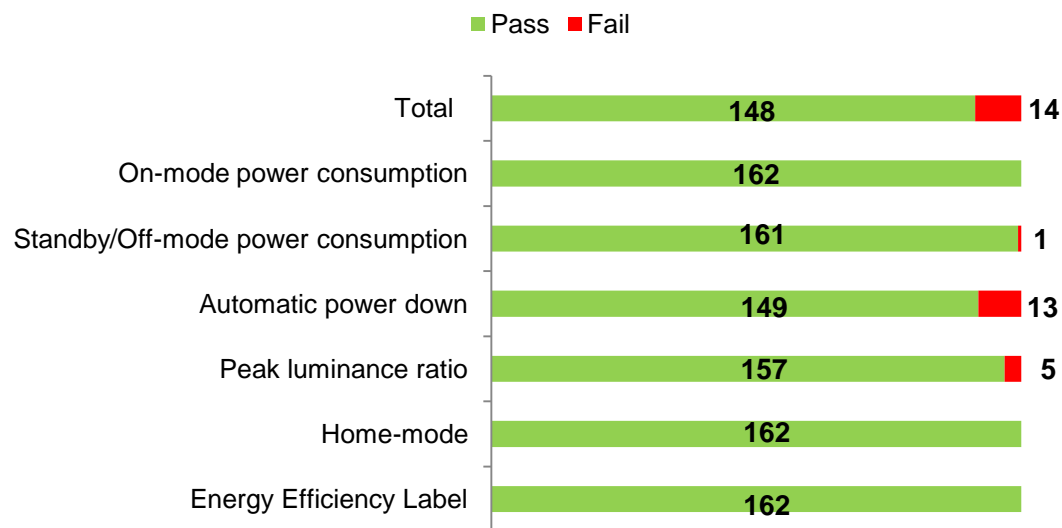


Sample size = 172



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Classification of Failure Type

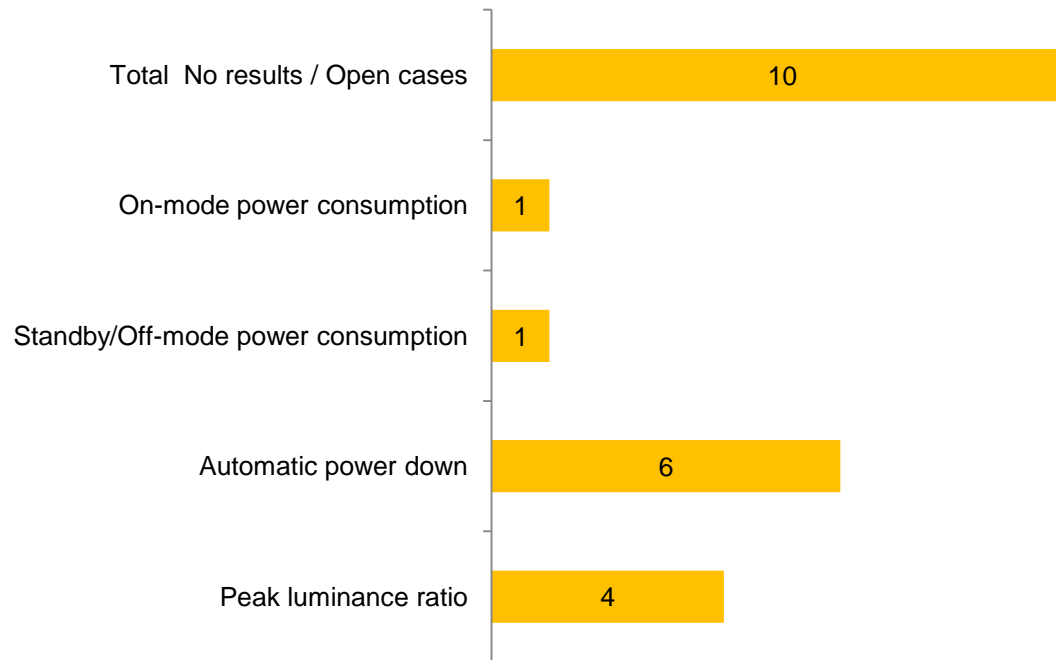


Sample size = 162. There were 10 products which could not be assessed for step 2 testing



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Classification of Failure Type – No results cases



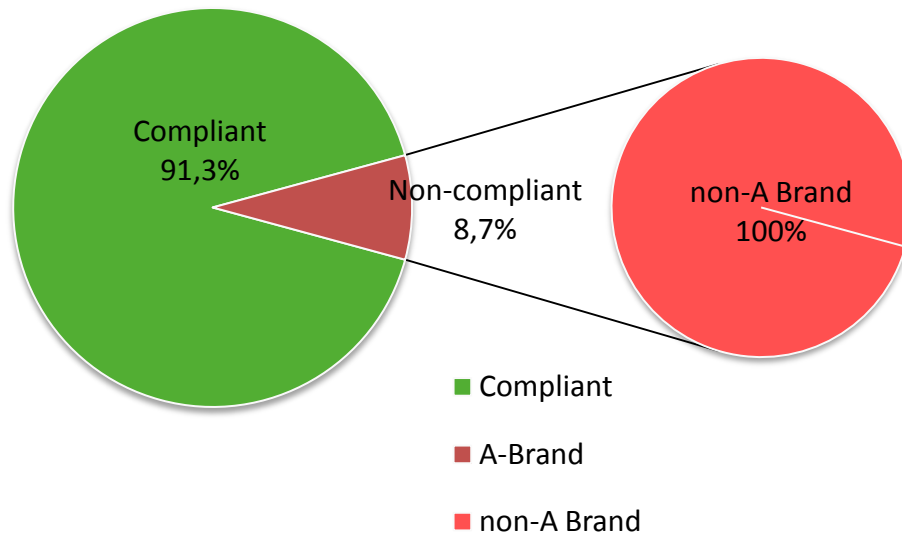
Sample size = 10. There were 10 products which could not be assessed for step 2 testing



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Failure split by brand classification

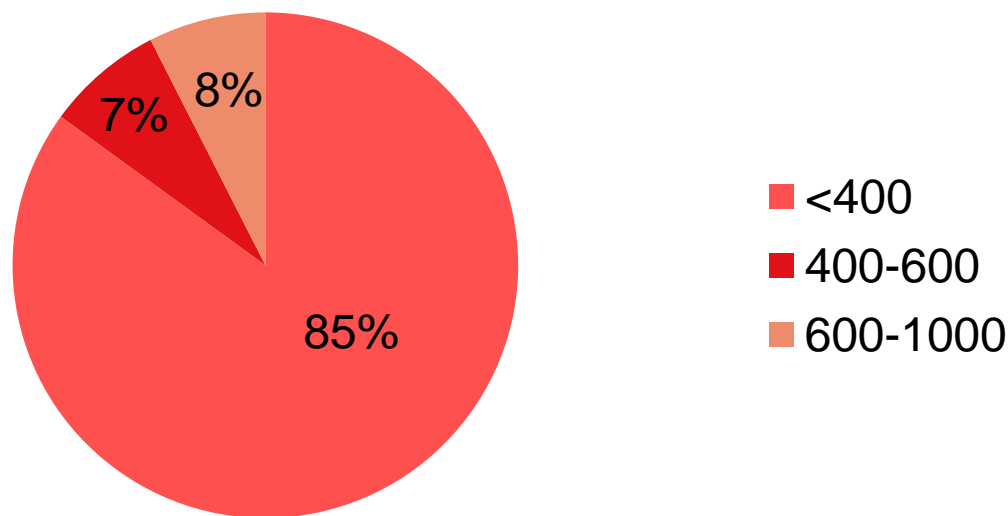
Physical Testing Compliance by Brand



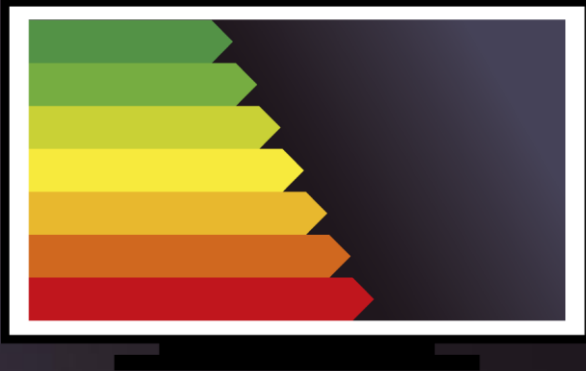
Sample size = 162.

Failure split by price segment

**Non-compliance by price segment
(%)**



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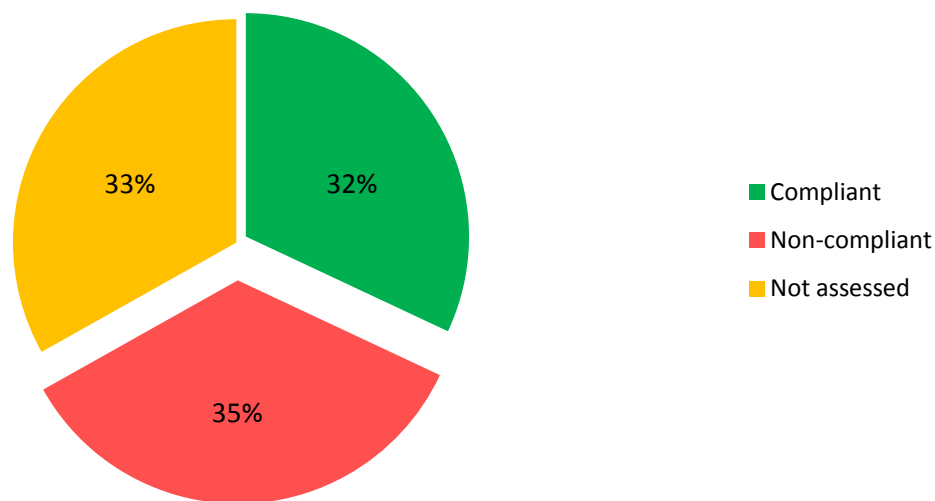
Results – Information Requirements



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Overall Pass/Fail (%) – Energy Labelling

Information requirements: Energy labelling
Batch 1, 2, 3 & 4



An example of an information requirement under the TV energy labelling regulation would be the need for to have a product fiche available

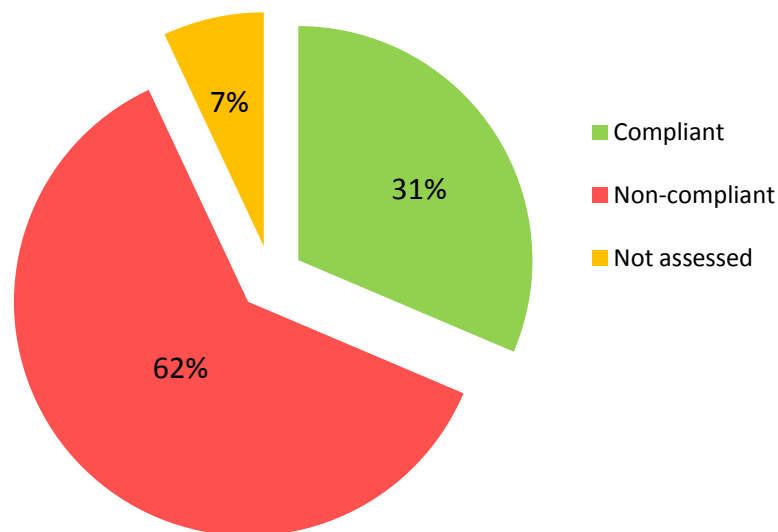


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Overall Pass/Fail (%) – Ecodesign

Information requirements: Ecodesign

Batch 1, 2, 3 & 4



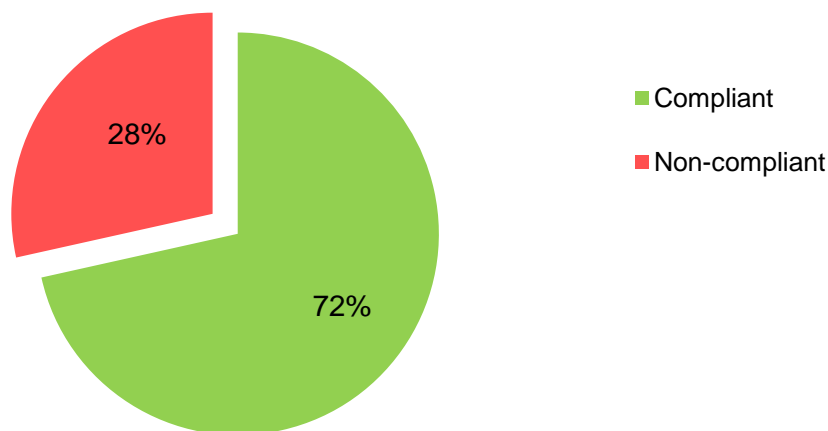
An example of an information requirement under the TV ecodesign regulation would be the publically available information on websites



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Overall Pass/Fail (%) – Energy Label Format

Energy label format requirements Batch 1, 2, 3 & 4

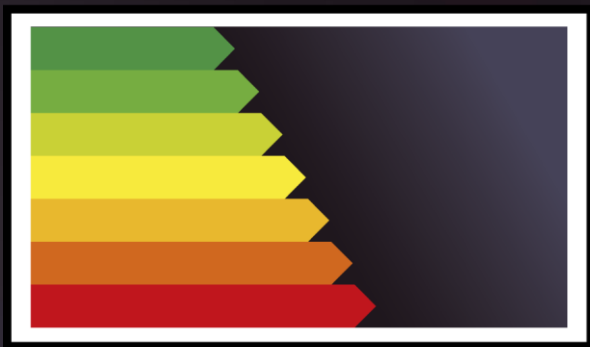


An example of a format failure is the label being produced in an incorrect format e.g. size, shape, colour.



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Compliance of TVs and Monitors
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Commentary



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Step 1: all 172 TVs

32 Suspicious cases

Discussion with
manufacturers

10 accept

17 challenge

5 Test results revised

STEP 2

open 1

7 TVs found

9 Not found on market

10

4

3

5

9

1

14 Not compliant

8 compliant

10 No results

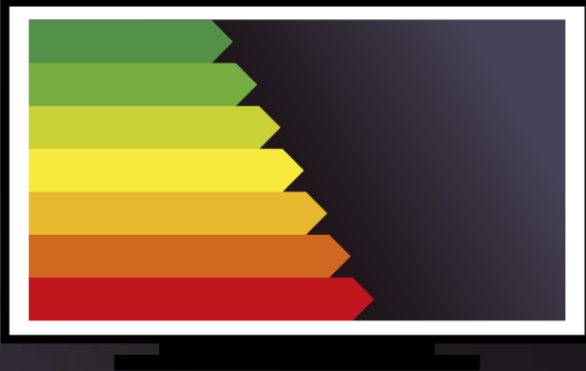
Commentary

- There were 10 models that failed step 1 testing which could not go forward to step 2;
- In 9 of the 10 cases a further 3 models could not be sourced from the market (despite best endeavours).
- In one case, 3 further units were sourced, but arrived already open (suspected of having been re-sold)
- Of the 7 models that went to step 2 testing, 4 continued to be non-complaint and 3 cases became compliant.
- Nearly a third of the suspicious cases after step 1 testing were accepted by manufacturers, negating the cost for step 2 testing



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Compliance of TVs and Monitors
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Testing recommendations



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Testing recommendations

- Guidelines on television testing - based on the practical experience gained from 172 TV models testing
- The guidelines contain detailed recommendations for testing set-up and procedures, specific testing requirements, documentation and interpretation of test results.
- 2 CompliantTV events for the presentation and discussion of the testing guidelines
 - CompliantTV testing workshop, 7 October 2014, Berlin
Participants: EC, testing labs, consumer electronics manufacturers and related associations, MSAs
 - Recommendations on EU policy level workshop, 22 June 2015
- Online available at: <http://www.complianttv.eu/eu/about-the-project/all-documents/>



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Testing recommendations

Test parameter	Issue identified	Issue addressed by the draft Ecodesign Reg.
On-mode power consumption	Dynamic in on-mode power consumption	The draft Ecodesign Regulation, Annex V, point 17: “A display automatically recognising a situation of on-going compliance test and reacting to it to achieve a different result, in any of the verification points from 1 to 10, has to be considered not compliant .”
APD	No specified time frame for the TV to reach low power state (within or after 4h)	The draft Ecodesign Regulation, Annex II, point 3 “within 4 hours in on mode.... the electronic display shall complete an automatic switch from on mode standby mode, or, off mode, or, another condition which does not exceed the applicable power demand requirements for off mode and/or standby mode”.



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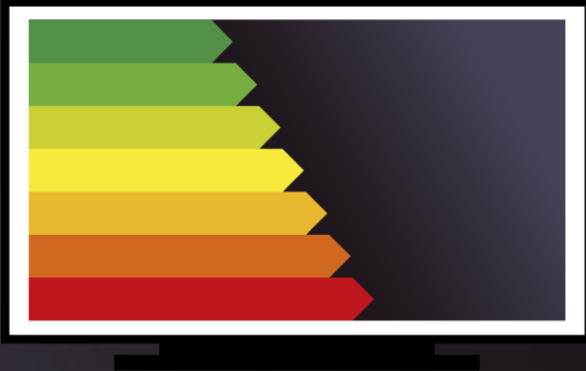
Testing recommendations

Test parameter	Issue identified	Issue addressed by the draft Ecodesign Reg.
EEI and Annual Power Consumption	Calculation of EEI based on tuner availability, but no guideline how to define two or more tuners	The draft Energy Label Regulation, Annex III, point 1 defines a single fixed value for the Pbasic equivalent value (20 W) for all kind of televisions.
	Absence of precise specification of the levels of luminance reduction and quantification of the required power consumption reduction for the calculation of on-mode power consumption (-5 %, if ABC is activated)	The draft Energy Label Regulation, Annex III, point 3 (a): “the luminance of the display ..., is automatically reduced between an ambient light intensity, measured at the ABC sensor of the display product, of 35 lux and 3 lux , and the average on-mode power requirement of the display product is reduced by at least 15% through this reduction in display luminance”.



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Thank you for your attention.

Contact and more information:

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